REVISED 4/10/2025 10:40 AM

City of Capitola City Council Meeting Agenda Thursday, April 10, 2025 – 6:00 PM

City Council Chambers 420 Capitola Avenue, Capitola, CA 95010

Mayor:Joe ClarkeVice Mayor:Alexander PedersenCouncil Members:Gerry Jensen, Margaux Morgan, Melinda Orbach

Closed Session – 5:30 PM

Closed Sessions are not open to the public and held only on specific topics allowed by State Law (noticed below). An announcement regarding the items to be discussed in Closed Session will be made in the City Hall Council Chambers prior to the Closed Session. Members of the public may, at this time, address the City Council on closed session items only. There will be a report of any final decisions in City Council Chambers during the Open Session Meeting.

 LIABILITY CLAIMS (Gov't Code § 54956.95) Claimants: Kevin Smith, Jianyu (Catherine) Duan, EFC, Cynthia Rae Diola, Jeffrey S. Hines, The Estate of Helen Maureen Hines, The Helen Maureen Hines Revocable Trust Agency Claimed Against: City of Capitola

Regular Meeting of the Capitola City Council – 6 PM

All correspondence received prior to 5:00 p.m. on the Wednesday preceding a Council Meeting will be distributed to Councilmembers to review prior to the meeting. Information submitted after 5 p.m. on that Wednesday may not have time to reach Councilmembers, nor be read by them prior to consideration of an item.

1. Roll Call and Pledge of Allegiance

Council Members Gerry Jensen, Margaux Morgan, Melinda Orbach, Alexander Pedersen, and Mayor Joe Clarke

2. Additions and Deletions to the Agenda

3. Presentations

Presentations are limited to eight minutes.

A. Proclamation Honoring April 2025 as Arts, Culture, and Creativity Month

4. Report on Closed Session

5. Additional Materials

Additional information submitted to the City after distribution of the agenda packet.

- A. Item 9A Correspondence Received
- B. Item 9B Correspondence Received
- C. Item 9C Correspondence Received

6. Oral Communications by Members of the Public



Oral Communications allows time for members of the Public to address the City Council on any "Consent Item" on tonight's agenda, or on any topic within the jurisdiction of the City that is not on the "General Government/Public Hearings" section of the Agenda. Members of the public may speak for up to three minutes, unless otherwise specified by the Mayor. Individuals may not speak more than once during Oral Communications. All speakers must address the entire legislative body and will not be permitted to engage in dialogue. **A maximum of 30 minutes** is set aside for Oral Communications.

7. Staff / City Council Comments

Comments are limited to three minutes.

8. Consent Items

All items listed as "Consent Items" will be enacted by one motion in the form listed below. There will be no separate discussion on these items prior to the time the Council votes on the action unless members of the City Council request specific items to be discussed for separate review. Items pulled for separate discussion will be considered following General Government. Note that all Ordinances which appear on the public agenda shall be determined to have been read by title and further reading waived.

A. City Council Meeting Minutes <u>Recommended Action</u>: Approve minutes from the regular meeting on March 27, 2025, and the special meeting on April 2, 2025.

9. General Government / Public Hearings

All items listed in "General Government / Public Hearings" are intended to provide an opportunity for public discussion of each item listed. The following procedure pertains to each General Government item: 1) Staff explanation; 2) Council questions; 3) Public comment; 4) Council deliberation; 5) Decision.

A. Grand Avenue Pathway

<u>Recommended Action</u>: Receive a report on recent bluff failure and provide direction to staff on the next steps to address pathway safety and public access on the Grand Avenue Pathway.

B. Filtered Tobacco Products

<u>Recommended Action</u>: Provide direction to staff on whether to prepare a draft ordinance on the prohibition on the sale of filtered tobacco products for City Council consideration.

C. E-Bike Safety

<u>Recommended Action</u>: Receive report regarding existing City e-bike safety initiatives and direct the Mayor to sign a letter regarding proposed State legislation for e-bike safety to Representatives Dawn Addis, Gail Pellerin, and Senator John Laird.

10. Adjournment - The next regularly scheduled City Council meeting is on April 24, 2025, at 6:00 PM.

How to View the Meeting

Meetings are open to the public for in-person attendance at the Capitola City Council Chambers located at 420 Capitola Avenue, Capitola, California, 95010.

Other ways to Watch:

Spectrum Cable Television channel 8

City of Capitola, California YouTube Channel

To Join Zoom Application or Call in to Zoom:

Meeting

link: https://us02web.zoom.us/j/83328173113?pwd=aVRwcWN3RU03Zzc2dkNpQzRWVXAydz09

Or dial one of these phone numbers: 1 (669) 900 6833, 1 (408) 638 0968, 1 (346) 248 7799

Meeting ID: 833 2817 3113

Meeting Passcode: 678550

How to Provide Comments to the City Council

Members of the public may provide public comments to the City Council in-person during the meeting. If you are unable to attend in-person, please email your comments to citycouncil@ci.capitola.ca.us and they will be included as a part of the record for the meeting. Please be aware that the City Council will not accept comments via Zoom.

Notice regarding City Council: The City Council meets on the 2nd and 4th Thursday of each month at 6:00 p.m. in the City Hall Council Chambers located at 420 Capitola Avenue, Capitola.

Agenda and Agenda Packet Materials: The City Council Agenda and the complete Agenda Packet are available for review on the City's website and at Capitola City Hall prior to the meeting. Need more information? Contact the City Clerk's office at 831-475-7300.

Agenda Materials Distributed after Distribution of the Agenda Packet: Pursuant to Government Code §54957.5, materials related to an agenda item submitted after distribution of the agenda packet are available for public inspection at the Reception Office at City Hall, 420 Capitola Avenue, Capitola, California, during normal business hours.

Americans with Disabilities Act: Disability-related aids or services are available to enable persons with a disability to participate in this meeting consistent with the Federal Americans with Disabilities Act of 1990. Assisted listening devices are available for individuals with hearing impairments at the meeting in the City Council Chambers. Should you require special accommodations to participate in the meeting due to a disability, please contact the City Clerk's office at least 24 hours in advance of the meeting at 831-475-7300. In an effort to accommodate individuals with environmental sensitivities, attendees are requested to refrain from wearing perfumes and other scented products.

Si desea asistir a esta reunión pública y necesita ayuda - como un intérprete de lenguaje de señas americano, español u otro equipo especial - favor de llamar al Departamento de la Secretaría de la Ciudad al 831-475-7300 al menos tres días antes para que podamos coordinar dicha asistencia especial o envié un correo electrónico a jgautho@ci.capitola.ca.us.

Televised Meetings: City Council meetings are cablecast "Live" on Charter Communications Cable TV Channel 8 and are recorded to be rebroadcasted at 8:00 a.m. on the Wednesday following the meetings and at 1:00 p.m. on Saturday following the first rebroadcast on Community Television of Santa Cruz County (Charter Channel 71 and Comcast Channel 25). Meetings are streamed "Live" on the City's website by clicking on the Home Page link "Meeting Agendas/Videos." Archived meetings can be viewed from the website at any time.

From:	John <jxmulry@gmail.com></jxmulry@gmail.com>
Sent:	Friday, April 4, 2025 3:37 PM
To:	City Council; Goldstein, Jamie (jgoldstein@ci.capitola.ca.us)
Subject:	9ABC
Follow Up Flag:	Follow up
Flag Status:	Flagged

А

Coastal Commission was adamant we try to keep that path open last time around when we closed the Oakland to Hollister segment iirc

В

This stops a useless kind of litter, affects less than a dozen businesses many of them older model types that should find a new way to profit with not off their communities AND most importantly beyond environment etc is the chops and the forever ability to advertise as the first city to do it. Money money money from lots of approaches seen by me and I'm sure unseen being designated the first.

С

E-bikes aren't dangerous says math. Cars are. Dedicating 90% more of our public rows to cars with no bike infrastructure or even decent sidewalks is criminal. We are the 2nd most dangerous county in CA for biking. Kid was seriously injured just recently.

Every driver is speeding nearly every second. Speeding is the cause of 90% plus accidents. One has to be realistic. This is like the old folks attacking rock and roll in my dad's day and video games in my day etc. All 5 of you should point out not have real bike lanes in the problem. I watch kids and adults almost die weekly biking down the Monterey Ave soon to be official rail trail Sharrow. Warmly JM

From:	Joe Palandrani <joep@sierrautility.net></joep@sierrautility.net>
Sent:	Monday, April 7, 2025 8:27 PM
То:	City Council
Cc:	Mara Palandrani
Subject:	Grand Avenue Pathway
Follow Up Flag:	Follow up
Flag Status:	Flagged

We feel that the Grand Avenue Pathway is a Capitola treasure and a very important part of the California Coastal Trail. There are few places in the world that enjoy the views that our trails provide.

The city of Capitola needs to step up and preserve the beauty of the pathway or it will be gone forever. The Pathway will not be preserved by spending money on yearly cliff assessments that just affirm that we are not doing what needs to be done to save the cliff from eroding.

The city needs to stop the formations of deep notches and sea cave into the bedrock at the base of the bluff with the use of rip raff rock to tame the ocean waves, like the rest of the world does it. Repair of the drains is essential as observed by the recent collapse caused by inadequate maintenance of the surface water. Hard drains need to be installed to direct street water from the neighborhood away from the fragile Marine Terrace Deposits.

Private encroachments that limit the city's ability to fully utilize the right-of-way must be taken back to be used as part of the pathway.

Anything short of the above will not save the Grand Avenue Pathway for our community and visitors to enjoy for years to come.

We hope the city will do what is necessary to preserve this pathway.

Mara & Joe Palandrani 105 Hollister Ave.

From:	Susana Glina Zubiate <sglinazubiate@gmail.com></sglinazubiate@gmail.com>
Sent:	Tuesday, April 8, 2025 10:34 AM
To:	City Council
Subject:	Walking path in depot hill
Follow Up Flag:	Follow up
Flag Status:	Flagged

Dear City Council Members,

As a long time citizen of Capitola, I write now to ask about the maintenance and repair of the drain which led to the degradation and undercutting of the cliff between Saxon St. and Hollister St. in Depot Hill.

Many citizens had noted and asked for repairs to be done to this major drain throughout the many years that I have lived here and very little was done to maintain it or address the problems associated with it. This has resulted in the loss of a lot of land and the closing of the major portion of the cliff path; a blow to both the neighbors and the many tourists that regularly utilize this path.

I request that the council vote to properly repair the drain, what is existing of the path and other sources of possible man made issues that lead to its upper section degradation, and then reopen the path the for the benefit of all.

Sincerely, Susana Glina

From:	Glina John <jcglina@yahoo.com></jcglina@yahoo.com>
Sent:	Tuesday, April 8, 2025 2:39 PM
То:	City Council
Subject:	Depot Hill bluff walking path

Dear City Council members,

The walking path on the Depot Hill bluff is hugely popular and a great asset for Capitola. Please do whatever is necessary to continue to keep it open for as long as possible. I hear the residents flanking the bluff are agreeable to forfeiting the right away they have been utilizing. Thank you,

John Glina 113 Central Ave Capitola

Sent from Yahoo Mail for iPhone

From: Sent: To: Subject: michael routh <qwakwak@gmail.com> Tuesday, April 8, 2025 3:13 PM City Council Grand Ave path

Council Members,

It's seems like a colossal waste of city funds to restore and attempt to maintain the Grand Ave path. It is more benefit to a specific neighborhood than the city as a whole. The millions it will take to restore the path will be for nothing in a few years as erosion continues. Mother nature will win and that money spent in a losing battle will be lost.

Mick Routh

Sent from my iPad

From:	LIsa Garrigues <lisamgarrigues@gmail.com></lisamgarrigues@gmail.com>
Sent:	Tuesday, April 8, 2025 6:34 PM
То:	City Council
Subject:	Grand Avenue Pathway

To the Council,

Mark and I urge the City of Capitola to do everything in your power to preserve public access to the Grand Avenue Pathway.

Not only is the Pathway a one-of-a-kind, picturesque overlook of Monterey Bay — a treasure on a par with the Pacific Coast Highway; it is a historic bi-way dating back to the mid-1800's when Camp Capitola, aka Depot Hill, was first settled.

For the city to opt to close down the Pathway – i.e., to do nothing – is unthinkable. As stewards of our community, the City of Capitola must do whatever it can — move the trail inland; redirect water away from the bluff — to preserve this historic treasure for as long as possible.

This is not the time for further studies; it is the time for action.

Lisa and Mark Garrigues

110 Hollister Avenue

From:	David Aaron <davidaaron5678@att.net></davidaaron5678@att.net>
Sent:	Tuesday, April 8, 2025 7:21 PM
То:	City Council
Subject:	April 10, 2025 Agenda Item 9A (Grand Avenue pathway)

Dear City Council members:

We request that the council take action to repair and maintain the Grand Avenue pathway. The pathway helps build community for all residents and visitors to Capitola. It provides access to ocean views to everyone, and not just those houses directly on the bluff. It is one of the few safe walking paths along our coastline without risk from car traffic.

Please take steps to reopen the path for the benefit of all.

Thanks, David, Deb & Audrey Aaron 116 Central Ave Capitola

From:	Narendra Dev <naren_private@yahoo.com></naren_private@yahoo.com>
Sent:	Tuesday, April 8, 2025 7:34 PM
То:	City Council
Subject:	Stockton Bridge Replacement

Dear council members,

I read through the Stockton bridge replacement plans. Unfortunately, nowhere do they address the key question - **"how will the city survive while the bridge is being constructed?"**

I think it is imperative that the city first needs to build a 2nd bridge. This will take the load while the Stockton bridge is replaced. After completion, the traffic load can be shared with one way traffic.

It is incomprehensible how engineering studies are in progress on the Stockton bridge replacement before this strategic question is addressed. HWY-1 is not a traffic solution for connecting the North side and South side of Capitola city.

Regards, Naren

Narendra Dev, Mobile: +1 408 771 8088, eMail: <u>naren_private@yahoo.com</u> 4820 Opal cliff dr. #202, Capitola

From:	Brigitte Estey <esteymain@gmail.com></esteymain@gmail.com>
Sent:	Tuesday, April 8, 2025 8:49 PM
To:	City Council
Cc:	Katheryn and Tom; Welch, Troy (TJ) (noworries4TJ@mac.com)
Subject:	Grand Avenue Pathway
Follow Up Flag:	Follow up
Flag Status:	Flagged

Dear Councilmembers:

Item A on the Public Agenda for the April 10th meeting is to discuss and provide staff direction regarding the demise of the public pathway on Grand Avenue. The erosion of the bluff is not a new issue and has been considered by the City Council over many years. At multiple times in the past, the City has avoided taking any action to address the speed of the erosion, most recently in 2023.

The geological process of erosion of the bluff that underlies the pathway is well understood and has been documented in several geologic studies of this portion of the Purisima Foundation. What is lacking is any study of the damage that runoff from rainwaters causes to the Marine Terrace Deposits (topsoil) that lies on top of the rock formation. It is clear from the latest report by Pacific Crest Engineering that lack of proper drainage at the end of Saxon Avenue has exacerbated the current erosion rate. E-mails to the city by a property owner near that drain pipe complaining about the inadequate state of repairs have largely been ignored. Curiously, there is a large drain that sticks out of the bluff at the end of Sacramento dumping stormwater onto the rocks below (see the picture from Google maps below). The topsoil is not eroded at that location.

What is also lacking in the latest geological reports dating back to 2017, is any assessment of the state of the bluff between Central Avenue and Saxon Avenue. My concern is that the same conditions exist there as do at the sections of the pathway that recently fell into the ocean. This part of the pathway could represent a serious safety issue.

My recommendations for City Council to consider are the following:

1) Conduct a geological survey of the bluff between Central Avenue and Saxon Avenue to confirm the integrity of the pathway between these two streets,

2) Have a civil engineer assess the state of drainage throughout the neighborhoods adjacent to the bluff in Depot Hill because that information is not addressed in the geological reports.

3) Convene an ad hoc Committee of neighbours and experts to consider the near- and long-term solutions for the Grand Avenue pathway from Central to Oakland.

Sincerely, Paul Estey 210 Central Avenue

Drainage pipe (in white) at the end of Sacramento Avenue



From:	Cherolyn Karkanias <cherolyn@karkanias.net></cherolyn@karkanias.net>
Sent:	Tuesday, April 8, 2025 10:06 PM
To:	City Council
Subject:	Depot Hill pathway
Follow Up Flag:	Follow up
Flag Status:	Flagged

I'm reaching out to City Council to make a case for saving the pathway on Depot Hill, from Saxon Ave to Oakland Ave. I've lived on Saxon since 2021, but I've vacationed in Capitola since the late 80's. Of the many iconic features of Capitola I've always treasured walking along the bluff, high above the surf and eye to eye with the pelicans! This is a California treasure.

I walk my dog 3 times a day through the neighborhood and meet up with people who come from all over the area to walk dogs, take in the views and exchange news with other people who love this place. Doing this has allowed me to build a sense of community very rapidly in my new home. I love that this beautiful spot is open to all.

When deciding on a plan to address the cliff and walkway, please consider the value of maintaining a destination location. The restaurants and businesses in the village rely on tourists continuing to see Capitola as a unique vacation opportunity. We've already lost the Wharfhouse. The Venetian is struggling to stay above water. The trestle bridge has an uncertain future. Saving the walkway is doable. Let's work to save the icons that make Capitola a place people look forward to returning to!

Thanks, Cherolyn Karkanias 111 Saxon Ave, Capitola

Sent from my iPad

From:	Anthony Goto <anthonygoto@gmail.com></anthonygoto@gmail.com>
Sent:	Wednesday, April 9, 2025 7:44 AM
To:	City Council
Subject:	Support for Repairing and Preserving the Depot Hill Coastal Bluff Walk
Follow Up Flag:	Follow up
Flag Status:	Flagged

Dear City Council Members,

I'm writing to express my strong support for the repair and preservation of the Depot Hill coastal bluff walking path. As an active member of the Depot Hill community, this path holds immense significance to my family and the broader neighborhood.

This walking path is more than just scenic. It is a gathering place that fosters community and connection. It's a place where I took my newborn on walks waiting for the sun to rise with other new fathers. It's a place families gather to watch our children play together every evening like clock work. The bluff walk is truly a physical representation of our community.

Given the recent damage from bluff erosion due to the storm drain, I urge the City Council to allocate the necessary resources toward repairing this critical infrastructure.

Thank you for your attention to this important matter. Your leadership and commitment to preserving Capitola's beauty and unique spaces are greatly appreciated.

Thank you for your time,

Anthony Goto 408-666-8982

From: Sent: To: Subject: Kathryn Johnson <kathy@ebold.com> Wednesday, April 9, 2025 11:55 AM City Council Grand Avenue Pathway

Re: Grand Ave pathway repair

Dear Members of the Capitola City Council,

I have lived on Depot Hill for over 30 years. Like others, I have watched in dismay as our beloved footpath along Grand Avenue has been undermined due to severe storms. I have read the geologist's report about the current and projected state of cliff erosion and drainage issues. I was dismayed to read the exact same warnings dating back decades, yet the city has chosen not to address these issues, save for repeatedly repairing the one corrugated plastic pipe that drains a huge swath of surrounding area. I understand that rectifying the situation will not be cheap, but please consider that the Grand Avenue "cliff walk" is enjoyed not only by residents of Depot Hill, but also young and old residents of surrounding communities and beyond. Grand Avenue is as iconic to Capitola as the esplanade, the wharf, the trestle and the Stockton Bridge. Why is it that the city has not hesitated to take action to make sure these other treasures continue to exist, yet seems to believe that the Grand Avenue path should not be saved? I urge you to reconsider.

Sincerely,

Kathryn Johnson Fairview Ave

From:	Adam Samuels <ahsamuels@gmail.com></ahsamuels@gmail.com>
Sent:	Thursday, April 10, 2025 4:35 AM
То:	City Council
Subject:	Grand Avenue pathway
Follow Up Flag:	Follow up
Flag Status:	Flagged

Adam Samuels 504 El Salto Drive Capitola, CA 95010

Members of the City Council City of Capitola

April 10, 2025

Regarding: Grand Avenue pathway

Dear Council Members,

I have lived in Capitola since 2007. During that time, I have witnessed the effects of our shoreline being eroded:

- As you're aware, the Grand Avenue pathway which was open from the top of the village stairs up to Hollister Avenue has become accessible now for only a portion of that distance;
- Due to the efforts of the community and the City, we've been able to keep remaining sections open while in spite of what seems to be the inevitable loss of the coastal bluff.
- 1. I applaud the most efforts that were made in 2023 by a combination of city and volunteer resources to keep the stretch between Saxon and Oakland Avenues open:
 - We citizens and government found a way to make this work and have residents;
 - Our combined actions allowed residents and visitors to enjoy continued access to the path.
- 2. It seems like the larger question at hand is whether the city and community are prepared to act to continue to provide access:
 - The city does have the right to recover encroachments from those residents on the path;
 - This may involve taking action where residents made improvements while promising to remove them if needed;
 - And asking residents who made improvements without obtaining authorization from the city to comply with regulations.
- 3. I have heard that (at least some of) the homeowners whose property abuts the pathway would be open to a request from the City to recover the encroachment in the interest of maintaining access for the community:
 - If that were the case, it seems like it's worth investigating how to do so;

- Item 5 A.
- Perhaps the same approach could be taken for the section between Saxon and Hollister Avenue as well.
- 4. Avoiding the process of making the case for permanent closure to the California Coastal Commission seems highly desirable.

Thanks for your service to the City and its citizens.

Adam Samuels

2

From: Sent: To: Subject: Katharine Parker <katharinep3@gmail.com> Thursday, April 10, 2025 10:16 AM City Council Grand Avenue Pathway

>

> Dear City Council,

>

> As you know, every Capitola neighborhood has its' own character. Depot Hill's character is marked by its' iconic path, enjoyed daily by neighbors ands visitors alike. Neighbors gather to talk, children learn to walk and ride their bikes, employees come during their lunch hours to walk or eat, visitors enjoy the views and many "regulars" come often to enjoy the sense of community that is so often missing these days. We may have the worst streets in Capitola but we love our pathway.

>

> Erosion is inevitable, but the City should not be CONTRIBUTING to the erosion. First, the jetty constructed by the City after the yacht harbor building has helped retain sand for its' beach, sand that would have otherwise been carried to the cliff area by downstream current. Second, the City built drainage that carries storm water from El Salto drive around the corner, down Oakland, around the corner onto Grand and out the drain directly onto the bluff surface. In addition, the drain has broken, not once, but several times, on the very top of the bluff. When that happens, usually during storms, the storm water sprays out of the broken pipe directly onto the soft upper layer of the bluff, eroding the cliff at feet per hour. This is what happened during the most recent storm. In addition, the last several repairs have been increasingly inadequate, the last one lasting less than a month.

> Yes, the problem is complex and could be costly, but isn't it the City's job to invest in its' community? I see monies being set aside for a walkway out of the village, monies set aside to improve roads, a lot of money to repair the drain out of Noble Gulch years ago. On Grand Avenue I see a rubber drain held in place by rope, dangling out of a jagged rusty metal pipe that will rub the drain causing it to break yet again, in the next storm.

> I thank the present Public Works Director for looking into the situation extensively and hope the City will finally take on this project.

Respectfully,

Katharine Parker

Item 5 A.



Item 5 A.



- >
- >
- >
- >

From:	John <jxmulry@gmail.com></jxmulry@gmail.com>
Sent:	Friday, April 4, 2025 3:37 PM
To:	City Council; Goldstein, Jamie (jgoldstein@ci.capitola.ca.us)
Subject:	9ABC
Follow Up Flag:	Follow up
Flag Status:	Flagged

А

Coastal Commission was adamant we try to keep that path open last time around when we closed the Oakland to Hollister segment iirc

В

This stops a useless kind of litter, affects less than a dozen businesses many of them older model types that should find a new way to profit with not off their communities AND most importantly beyond environment etc is the chops and the forever ability to advertise as the first city to do it. Money money money from lots of approaches seen by me and I'm sure unseen being designated the first.

С

E-bikes aren't dangerous says math. Cars are. Dedicating 90% more of our public rows to cars with no bike infrastructure or even decent sidewalks is criminal. We are the 2nd most dangerous county in CA for biking. Kid was seriously injured just recently.

Every driver is speeding nearly every second. Speeding is the cause of 90% plus accidents. One has to be realistic. This is like the old folks attacking rock and roll in my dad's day and video games in my day etc. All 5 of you should point out not have real bike lanes in the problem. I watch kids and adults almost die weekly biking down the Monterey Ave soon to be official rail trail Sharrow. Warmly JM

From:	John <jxmulry@gmail.com></jxmulry@gmail.com>
Sent:	Friday, April 4, 2025 3:37 PM
To:	City Council; Goldstein, Jamie (jgoldstein@ci.capitola.ca.us)
Subject:	9ABC
Follow Up Flag:	Follow up
Flag Status:	Flagged

А

Coastal Commission was adamant we try to keep that path open last time around when we closed the Oakland to Hollister segment iirc

В

This stops a useless kind of litter, affects less than a dozen businesses many of them older model types that should find a new way to profit with not off their communities AND most importantly beyond environment etc is the chops and the forever ability to advertise as the first city to do it. Money money money from lots of approaches seen by me and I'm sure unseen being designated the first.

С

E-bikes aren't dangerous says math. Cars are. Dedicating 90% more of our public rows to cars with no bike infrastructure or even decent sidewalks is criminal. We are the 2nd most dangerous county in CA for biking. Kid was seriously injured just recently.

Every driver is speeding nearly every second. Speeding is the cause of 90% plus accidents. One has to be realistic. This is like the old folks attacking rock and roll in my dad's day and video games in my day etc. All 5 of you should point out not have real bike lanes in the problem. I watch kids and adults almost die weekly biking down the Monterey Ave soon to be official rail trail Sharrow. Warmly JM

From:	Clark Cochran <clark.e.cochran@gmail.com></clark.e.cochran@gmail.com>
Sent:	Monday, April 7, 2025 1:01 PM
То:	City Council
Subject:	E-Bike Safety for Youth Letter

Dear Mayor and Council Members,

I fully support your letter to our State Representatives. I would however suggest you include an additional point. An e-bike is considered by the California DMV to be a motorized vehicle by its definition. As such, all riders should be required to carry identification. E-bikes are not using only bike lanes anymore, but are on streets with automobiles. In case of an accident with an automobile when the e-bike is at fault, it should not be the up to the automobile driver to pay uninsured coverage deductible though his insurance. Without identification of any sort it could be difficult to confirm e-bike insurance coverage to protect the automobile driver. Further, warnings and citations have little value if they are issued to an unidentifiable e-bike rider.

Thank you for your consideration on this point.

Sincerely, Clark Cochran Capitola home owner and full time resident

From:	Matt Miller <matt.miller@ecoact.org></matt.miller@ecoact.org>
Sent:	Wednesday, April 9, 2025 4:14 PM
То:	City Council
Subject:	[PDF] Comment on Item 9.C E-Bike Safety for 4/10 Meeting
Attachments:	City of Capitola - Letter of Support E-Bike Safety 4.9.25.pdf

Hello Mayor Clarke and City of Capitola Council,

Please find the attached letter regarding Item 9.C E-Bike Safety for tomorrow's meeting. Thank you for your consideration and leadership on this matter.

Best,

Matt Miller (he/him) Director, Mobility Transformation

Direct **831.515.1324** 877 Cedar St. Suite 240, Santa Cruz, CA 95060 letsmodo.org | vamosmodo.org





4/9/25

City of Capitola City Council 420 Capitola Avenue Capitola, CA 95010 RE: Item 9.C. E-Bike Safety

Dear Mayor Clarke and Capitola City Council,

Ecology Action, a California environmental non-profit headquartered in Santa Cruz, works to advance equitable community climate solutions in high greenhouse gas emitting sectors, including transportation. Our Modo Active Transportation team offers youth pedestrian and bike safety education at schools across the county, including Capitola, transportation planning like Complete Streets to School and Active Transportation Plans, and hosts community events like Walk and Roll to School Day, and Bike to Work Day, and Bike Month.

One of the biggest developments in sustainable transportation in the last few years has been the proliferation of electric bicycles. The promise of contributing to sustainable, lower cost, and more accessible mobility for all ages remains high, but we acknowledge that the proliferation of electric bicycles and our social, regulatory, and infrastructure environments have not kept pace. The moment we're in right now is to maximize the benefits of electric bicycles as their popularity grows and reduce safety and public nuisance issues associated with them. We believe that electric bicycle safety can be addressed through education, behavior encouragement, and infrastructure. Just last week, our youth education team completed bike safety presentations at all 6th and 7th grade classes at New Brighton Middle School.

We applaud the City for working on this issue including efforts in education, community engagement, public awareness, and new electric bicycle specific data coding for traffic incidents with PD to inform future conversations and policy. While we support in principle the City of Capitola engaging with state officials to promote electric bicycle safety through some regulations, below are specific elements Ecology Action would like to add for consideration before moving forward.

On 1) Establishing a minimum age of 14 for Class 2 e-bikes – we understand the logic of applying an age minimum to Class 2 electric bicycles in line with other types of vehicles, and we'd support one only in a pilot context to determine the real safety benefits of introducing an age minimum. We do not have a specific age minimum recommendation. A pilot would allow monitoring and evaluation to potentially conclude that yes in fact excluding younger age groups improves safety. The consequences of this type of age restriction would lead to, for example, many students at New Brighton Middle School no longer being able to ride the electric bicycles they currently ride to school.

On 2) Establishing a written test/permit administered by the DMV for users less than 16 years old to use Class 2 e-bikes – we agree with People for Bikes that legal Class 1-3 electric bicycles should not require licensing, a written test, or a permit. From an equity perspective, we oppose adding financial and other barriers that would prevent access to this mode of sustainable transportation and create a new pretext for enforcement. Additionally, engaging the DMV could lead to electric bicycles being reclassified as motor vehicles which could subject them to similar regulations including registration, licensing, and insurance which again is a barrier and cost to adoption.

877 Cedar Street, Suite 240, Santa Cruz, CA 95060

ecoact.org | 831.426.5925



On 3) Require traffic safety education as essential core curriculum for schools – the current baseline in the U.S. is either elective education around pedestrian/bicycle safety in schools and other educational resources, or mandatory through drivers education to get a drivers license. Since most people participate in some way with our transportation system as a pedestrian, cyclist, transit user, or driver it makes universal traffic safety education a basic need for all. Ecology Action fully supports universal traffic safety education as an essential core curriculum in schools.

A final note that is not included in the staff report is on the topic of electric bicycle safety and infrastructure. We encourage the City of Capitola to include in the conversation about electric bicycle safety, how the physical infrastructure in the city contributes to the overall safety of all road users. We believe that an increase in bike ridership and electric bicycles in particular calls for applying strategies that reduce exposure to higher speed, high traffic volume roads and the addition of bike facilities, traffic calming measures, protected bike lanes, protected intersections, and more as important and proven methods to address road user safety across the board.

With a balance of education, behavior encouragement, and infrastructure Ecology Action is hopeful that Capitola can increase electric bicycle safety, and improve the livability, equity, and quality of life for residents and visitors alike.

Sincerely,

2Mo Milla

Matt Miller Director, Mobility Transformation

ecoact.org | 831.426.5925

Capitola City Council Agenda Report

Meeting: April 10, 2025

From: City Manager Department

Subject: City Council Meeting Minutes



<u>Recommended Action</u>: Approve minutes from the regular meeting on March 27, 2025, and the special meeting on April 2, 2025.

<u>Background</u>: Attached for City Council review and approval are the draft minutes from the regular meeting on March 27th and the special meeting on April 2nd.

Attachments:

- 1. Regular Meeting Minutes 3/27/2025
- 2. Special Meeting Minutes 4/2/2025

<u>Report Prepared By</u>: Julia Gautho, City Clerk <u>Approved By</u>: Jamie Goldstein, City Manager

City of Capitola City Council Meeting Minutes Thursday, March 27, 2025 – 6:00 PM

TRECORPORATED 100

City Council Chambers 420 Capitola Avenue, Capitola, CA 95010

Mayor:Joe ClarkeVice Mayor:Alexander PedersenCouncil Members:Gerry Jensen, Margaux Morgan, Melinda Orbach

Regular Meeting of the Capitola City Council – 6 PM

- **1. Roll Call and Pledge of Allegiance –** The meeting was called to order at 6:00 PM. In attendance: Council Members Jensen, Morgan, Orbach, Vice Mayor Pedersen, and Mayor Clarke.
- 2. Additions and Deletions to the Agenda None

3. Presentations

A. Moriah Roberts, Dan Haifley, and Brenda Gutierrez, the Friends of Santa Cruz County Parks, provided a presentation on the Treasure Cove Playground Fundraising Campaign.

4. Additional Materials

- A. Item 3A 10 Emails received after publication of the agenda packet.
- B. Item 8B 31 Emails received after publication of the agenda packet.
- C. Item 8C 1 Email received after publication of the agenda packet.

5. Oral Communications by Members of the Public

- Heidy Kellison
- Rich Hamlin
- Nelson Crandall
- Doug Deaver
- Tina Andrietta
- Goran Klepic
- Charlotte Linck
- Speaker
- Justin Maffia
- Marilyn Garrett
- Dave Fox
- Kevin Maguire
- Cathy Howard

6. Staff / City Council Comments

- City Manager Goldstein reminded the public that the City Clerk's office is currently recruiting for City advisory bodies.
- Council Member Morgan thanked the fundraisers for the Treasure Cove Playground, requested that staff work with the Cabrillo Mobile Home Estates residents to address their rent increase, and announced that she would be absent from the April 2nd Town Hall meeting.

- Community Development Director Herlihy provided a brief update on the Cabrillo Mobile Home Estates rent increase process.
- Vice Mayor Pedersen thanked those who have donated to the Treasure Cove Playground Project.
- Council Member Jensen thanked those who have donated to the Treasure Cove Playground Project and recognized former Council Member Brooks for her efforts. He also provided updates on local events he has attended recently.
- Council Member Orbach thanked the fundraisers for the Treasure Cove Playground Project. She also provided updates on local events she has attended recently. She also requested that staff support families during the enrollment process for summer camps. She responded to comments provided during Oral Communications.
- Mayor Clarke thanked the fundraisers for the Treasure Cove Playground Project and recognized the retirement of Cathy Howard.

7. Consent Items

- A. City Council Meeting Minutes <u>Recommended Action</u>: Approve minutes from the regular meeting on March 13, 2025.
- B. City Check Registers

<u>Recommended Action</u>: Approve check registers dated January 17, 2025, January 31, 2025, February 14, 2025, February 28, 2025, and March 7, 2025.

C. Surplus Vehicle

<u>Recommended Action</u>: Adopt a resolution to declare one Police Department vehicle as surplus property and authorize its transfer to the San Benito County Sheriff's Office as a donation, in accordance with Administrative Policy III-8 - Surplus Property. *(Resolution No. 4422)*

D. Consultant Contract - 41st Avenue Corridor Plan <u>Recommended Action</u>: Authorize the City Manager to execute an agreement with SWA Group for preparation of a 41st Avenue Corridor Plan in an amount not to exceed \$105,000, subject to City Attorney review and approval. *(Item pulled for discussion by Council Member Pedersen)*

- E. Library Facilities Financing Authority Joint Powers Agreement Amendment <u>Recommended Action</u>: Approve the second amendment to the Library Facility Financing Authority Joint Powers Agreement (JPA) to increase member allocations, and authorize the City Manager to allocate Capitola's additional debt service coverage to support Santa Cruz City bonding capacity
- F. CDBG Program Income Funds <u>Recommended Action</u>: Adopt a resolution amending Resolution No. 4420. (Resolution No. 4423)

Council Member Pedersen requested to pull Item 7D for discussion.

D. Consultant Contract - 41st Avenue Corridor Plan <u>Recommended Action</u>: Authorize the City Manager to execute an agreement with SWA Group for preparation of a 41st Avenue Corridor Plan in an amount not to exceed \$105,000, subject to City Attorney review and approval.

Community Development Director Herlihy presented the staff report.

Public Comment: None

Motion to approve Consent Items 7A-7F: Council Member Morgan Second: Council Member Orbach

Voting Yea: Council Members Jensen, Morgan, Orbach, Pedersen, and Mayor Clarke

8. General Government / Public Hearings

A. 2025-2029 Strategic Plan <u>Recommended Action</u>: Adopt the City of Capitola Strategic Plan.

Chloe Woodmansee, Assistant to the City Manager, presented the staff report.

Public Comment:

- Marilyn Garrett
- Cathy Howard
- Dave Fox

The City Council requested a one-year review of the Strategic Plan.

Motion to adopt the City of Capitola Strategic Plan: Council Member Orbach Second: Council Member Jensen Voting Yea: Council Members Jensen, Morgan, Orbach, Pedersen, and Mayor Clarke

B. Stockton Bridge Replacement Project Design Amendment <u>Recommended Action</u>: Staff recommends the City Council approve an amendment to the Professional Services Agreement with CSWST2 in the amount of \$715,000, for a total contract value of \$840,398, to complete all tasks outlined in the Scope of Work (SOW), excluding final engineering, for the Stockton Avenue Bridge Replacement Project.

Public Works Department Director Kahn presented the staff report.

Public Comment:

- Speaker
- Speaker
- Eric Coatney
- Speaker
- Dave Fox
- Kevin Maguire
- Keith Cahalen
- Cathy Howard
- Marilyn Garrett

The City Council discussed the need for public engagement with this project and thanked the public for their participation and comments. The Council requested that this item go to the Planning Commission and the Commission on the Environment for information and input.

Motion to utilize \$30,000 of grant funding to conduct an internal analysis of the Stockton Bridge, followed by additional public outreach, and research into historic preservation: Council Member Morgan

Second: Council Member Orbach

Friendly amendment proposed to include additional tasks into the scope of work of the amendment: Council Member Orbach

Amendment Rescinded: Council Member Orbach

Motion amended to remove dollar amount from original motion: Council Member Jensen Amendment accepted: Council Member Morgan

Voting Yea: Council Members Jensen, Morgan, Orbach, Pedersen, and Mayor Clarke

The City Council took a brief recess at 8:27 PM and reconvened at 8:30 PM. The Mayor switched the order of Items 8C and 8D.

D. Housing Rehabilitation Assistance Program

<u>Recommended Action</u>: Adopt a resolution approving the City of Capitola Housing Rehabilitation Assistance Program for Owner-Occupied Deed-Restricted-Affordable Units with Resale Price Restrictions ("Program"), adopting associated Program Guidelines, approving an agreement with Habitat for Humanity Monterey Bay for the administration and operation of the Program in the amount of \$22,500, authorizing the City Manager to execute same on behalf of the City, and directing staff to oversee the Program implementation.

Community Development Director Herlihy presented the staff report.

Public Comment: None

The City Council expressed a desire to invite the community to participate as volunteers with the program, and discussed how applicants will be prioritized in the application review process.

Motion to adopt Resolution No. 4424: Council Member Orbach Second: Vice Mayor Pedersen Voting Yea: Council Members Jensen, Morgan, Orbach, Pedersen, and Mayor Clarke

C. Housing Element Annual Progress Report 2024 <u>Recommended Action</u>: Accept the presentation and direct staff to submit the annual report to the California Department of Housing and Community Development (HCD) by April 1, 2025.

Community Development Director Herlihy presented the staff report.

Public Comment:

• Cathy Howard

The City Council discussed objective standards for setbacks for residential buildings, requested that when staff return with the next annual report that it includes a comparison to neighboring communities' progress.

Motion to direct staff to submit the report to HCD: Council Member Morgan Second: Vice Mayor Pedersen Voting Yea: Council Members Jensen, Morgan, Orbach, Pedersen, and Mayor Clarke

9. Adjournment – The meeting adjourned at 9:07 PM. The next regularly scheduled City Council meeting is on April 10, 2025, at 6:00 PM.

ATTEST:

Joe Clarke, Mayor

Julia Gautho, City Clerk

Item 8 A.

City of Capitola Town Hall/Special City Council Meeting Minutes

Wednesday, April 02, 2025 – 5:30 PM

NBMS Performing Arts Center 250 Washburn Avenue, Capitola, CA 95010

Mayor:Joe ClarkeVice Mayor:Alexander PedersenCouncil Members:Gerry Jensen, Margaux Morgan, Melinda Orbach

Town Hall/Special Meeting of the Capitola City Council – 5:30 PM

1. Roll Call – The meeting was called to order at 5:30 PM. In attendance: Council Members Jensen, Orbach, Vice Mayor Pedersen, and Mayor Clarke. Absent: Council Member Morgan. Mayor Clarke welcomed attendees to the meeting and introduced Jim Frawley, the meeting facilitator.

2. Additional Materials

A. Item 3A – Twelve emails received after publication of the agenda packet.

3. General Government / Public Hearings

A. Rail Trail Project Town Hall <u>Recommended Action</u>: None. No Council action will be taken at the Town Hall.

The City Council received a presentation from representatives from the RTC, the County, and City staff.

Public Comments:

- Dianne Dryer
- Ed Spurr
- Alyssa Burkhardt
- Sally Arnold
- Cami Corvin
- Jonathan Evans
- Daniel Castagnola
- Lynn Gainey
- Katy
- Mark Drummond
- Barry Scott
- Clark Cochran
- Ariel Gray
- Sydney Arabin
- Brian Peoples
- Karen Klimowski
- Stephanie
- Carl Seibert



- Johnna Lighthill
- Elliott Campbell
- Terre Thomas
- Kevin Maguire
- Suzi Merriam
- Debbie Hale
- **4.** Adjournment The meeting adjourned at 7:45 PM. The next regularly scheduled City Council meeting is on April 10, 2025, at 6:00 PM.

ATTEST:

Joe Clarke, Mayor

Julia Gautho, City Clerk

Capitola City Council Agenda Report

Meeting: April 10, 2025

From: Public Works Department

Subject: Grand Avenue Pathway



<u>Recommended Action</u>: Receive a report on recent bluff failure and provide direction to staff on the next steps to address pathway safety and public access on the Grand Avenue Pathway.

<u>Background</u>: The Grand Avenue Pathway, which historically ran along the top of the bluff on Depot Hill between Central Avenue and Sacramento Avenue, is designated as part of the California Coastal Trail. The path is treasured by residents and visitors for providing public access to stunning views of the City of Capitola and the Monterey Bay. Due to coastal bluff erosion, Grand Avenue east of Central Avenue has been closed to vehicular traffic since approximately the 1980s. The pedestrian walkway extends two blocks east of Central Avenue to Oakland Avenue.



Grand Avenue Pathway

From 1997 to 2004, a Hazards Abatement District composed of 18 homeowners evaluated the long-term stability of the bluffs between Central Avenue and Livermore Avenue east of the existing trail. This effort culminated in the submission of an application and Environmental Impact Report (EIR) for a seawall, which was denied by the Planning Commission; a subsequent appeal was denied by the City Council on November 10, 2004. Findings for the denial included inadequate evaluation of alternatives, lack of effort to mitigate erosion due to drainage, lack of imminent threat to structures, the project only providing short-

term benefit, and loss of public access regardless of project construction. The Hazards Abatement District has not applied for any additional projects for bluff stabilization.

On March 24, 2005, the City Council directed staff to maintain a minimum walkway width of eight feet within the Grand Avenue right-of-way, and that the public walkway be relocated within the right-of-way as necessary until such time that the path is no longer usable. That action also included a recommendation that future City Councils should not consider eminent domain for the public walkway should the right-of-way become too narrow to safely accommodate pedestrians.

Road right-of-way is an easement for the purposes of constructing and maintaining roadways, including pedestrian facilities. The City may claim all or only a portion of an easement for these purposes. In the case of Grand Avenue, between Central Avenue and Oakland Avenue, the City has not used or maintained the right-of-way between the old roadway and the right of way boundary, and the adjacent property owners have utilized this area for their benefit, generally for landscaping. Private property owners may not establish prescriptive rights against a public easement, so the City maintains the right to claim the unused right-of-way at any time.

On May 25, 2017, the City Council directed the closure of a block of the Grand Avenue Pathway between Oakland Avenue and Hollister Avenue due to the threat of continuing bluff failures in the area, based on the results of a geologic assessment. The City Council also authorized the formation of an ad-hoc citizen group (Depot Hill Bluff Group) charged with studying potential long-term solutions for preservation of the pathway. On October 11, 2018, the Ad Hoc Depot Hill Bluff Group presented options for path preservation, inclusive of filling undercut areas and construction of a groin or seawall. The City Council did not take any action at that time. The pathway between Oakland Avenue and Hollister Avenue remains closed.

In early 2023, following winter storms that triggered additional bluff failures between Saxon Avenue and Oakland Avenue, the City retained Pacific Crest Engineering to assess site conditions. Based on the updated findings, Council directed staff to relocate and repair fencing to maintain an eight-foot-wide pathway within the right-of-way and to reassess the removal of private encroachments that limit the City's ability to fully utilize the right-of-way along this segment. Fencing work was completed by a volunteer group in summer 2023. During budget hearings for Fiscal Year 2024–2025, Council did not include the removal of the encroachments due to other high-priority projects and existing staff workload.

<u>Current Status</u>: Between February 14 and 15, 2025, a severe coastal storm caused further bluff failures along the Grand Avenue Pathway between Saxon Avenue and Oakland Avenue. The failure resulted in the partial collapse of the relocated pedestrian path and damaged the storm drain infrastructure serving the area. The drainage pipe and bluff beneath the path were lost in the collapse, though the fencing installed in 2023 remains standing in its most recent location. However, the fencing is no longer secure or safe for public use.

On February 28, 2025, Public Works crews completed emergency repairs to the storm drain inlet and reestablished a functional drainage connection in the area.

In response to the recent damage, the City has again retained Pacific Crest Engineering to evaluate the condition of the bluff and provide updated recommendations for public safety and planning.

An updated letter from Pacific Crest Engineering dated April 3, 2025, confirms that the bluff retreat continues and has accelerated in the vicinity of the pathway between Saxon and Oakland Avenues. The recent failure was centered near a corrugated plastic storm drain outfall that daylighted at the bluff edge. The bluff in this area consists of fragile marine terrace deposits that are nearly vertical and prone to failure, especially when saturated.

The projected top-of-bluff retreat line continues to encroach into the Grand Avenue right-of-way, threatening the feasibility of maintaining a stable path even if relocated inland. According to the engineering analysis, erosion will likely continue to lay back the top of the bluff to an average angle of 38 degrees. This could occur within one to six years, depending on storm intensity and rainfall patterns. This erosion would leave approximately 10' between the future top-of-bluff and the private property.

The report strongly advises against the use of heavy equipment within 15 feet of the bluff edge due to the risk of triggering additional landslides. Any construction should be done by hand during dry conditions. The geotechnical report recommends not plugging the culvert unless stormwater can be rerouted via hard piping to avoid saturation of the marine terrace deposits. The nearest stormwater pipe, that does not drain into a cliff-side outfall and is potentially accessible from this location, is on Monterey Ave.

The consultant concludes that, even with intervention, any drainage or pathway improvements in this segment may be undermined and threatened in less than a decade, without full stabilization of the bluff, which would require costly and extensive armoring interventions.

<u>Discussion</u>: Staff evaluated options to restore a safe and accessible public path along Grand Avenue, including fencing relocation and removal of private encroachments within the right-of-way. Relocation alone is no longer feasible in most locations without reclaiming the full right-of-way, as existing private landscaping and improvements restrict available space. Maintaining an eight-foot-wide path will require the removal of private improvements between Saxon Avenue and Oakland Avenue. Encroachments vary significantly: some properties have no encroachments, while others include fencing, landscaping, or hardscape features. Some improvements were permitted; others have no record of approval. Reconfiguration of the trail will require identifying encroachment limits, verifying boundaries, and engaging with property owners.

Shifting the pathway inland will also necessitate modification of the existing drainage system, which was installed to align with the current path location. Redesigning the trail will likely involve relocating storm drain inlets and piping to ensure functionality and prevent further erosion.

However, recent geotechnical findings raise serious concerns about the long-term feasibility of investing in a new path in this area. The 2025 engineering report projects the top of bluff may retreat significantly within one to six years. Even if an 8-foot path were established today, this degree of bluff retreat would threaten the available space for a safe public path and fencing.

Work near the bluff must be done by hand due to the fragility of the marine terrace deposits. This limits constructability and increases costs. Additionally, the available right-of-way varies and is most constrained in the area immediately east of Saxon Avenue. In that location, the fence was previously relocated in 2023 to preserve an 8-foot-wide path without removing encroachments, with the fence set approximately 10 feet from the bluff. The current distance between the property line and the bluff edge in this location is approximately 20 feet.

Should the Council direct staff to pursue construction of a new pathway in this location, the first step would be to retain a civil engineer to perform a feasibility study that examines constructability, drainage requirements, geotechnical constraints, and long-term viability. If the path is determined to be feasible, a design process would follow. This approach would require considerable staff time for fieldwork, legal coordination, outreach, and design; as well as funding to support trail grading, surfacing, and fencing.

As an alternative, the City could consider permanent closure of the pathway at Saxon Avenue, similar to the 2017 closure. This would require a Coastal Development Permit and may be subject to appeal to the Coastal Commission.

Another option is to revisit bluff stabilization strategies, such as those proposed by the Ad Hoc Depot Hill Bluff Group in 2018, including filling undercut areas or constructing groins or seawalls. While potentially effective in preserving the pathway long-term, these strategies carry significant cost, permitting requirements, and environmental impacts.

<u>Fiscal Impact</u>: Removal of encroachments and construction of a new trail alignment would have a fiscal impact, though the total cost would depend on the scale of work and the need for surface improvements. Staff time requirements would be high, given the complexity of the coordination and legal boundaries involved. Closure of the pathway would be less costly in the near term but would permanently eliminate a segment of the Coastal Trail. Pursuing bluff stabilization would both involve higher levels of complexity,

long timelines, and varying levels of risk. Depending on Council direction, staff will return to Council with a time and cost estimate during consideration of the FY 2025-26 budget.

Attachments:

- 1. Geological Investigation Oakland to Saxon (Pacific Crest Engineering, 2025)
- 2. Geological Investigation Oakland to Saxon (Pacific Crest Engineering, 2023)
- 3. Geological Investigation Hollister to Oakland (Zinn Geology, 2017)

Report Prepared By: Jessica Kahn, Public Works Director

Reviewed By: Julia Gautho, City Clerk

Approved By: Jamie Goldstein, City Manager



GEOTECHNICAL | ENVIRONMENTAL | CHEMICAL | MATERIAL TESTING | SPECIAL INSPECTIONS

3 April 2025

Project No. 2381

Item 9 A.

City of Capitola, Public Works Attention: Jessica Kahn, Public Works Director 420 Capitola Ave Capitola, California 95010 Phone: (831) 475-7300 jkahn@ci.capitola.ca.us

Re: Updated geological investigation of recent coastal bluff failure Grand Avenue footpath near intersection with Oakland Avenue and Saxon Avenue Capitola, California 95010

Dear Jessica:

This letter presents an update to the prior results of our limited geological investigation of the ongoing bluff failure that has undermined portions of the footpath along Grand Avenue between its intersection with Oakland Avenue and Saxon Avenue (see Plate 1). This is update focuses on the most recent failure of the bluff this spring centered around where a storm drain culvert daylights in the coastal bluff.

The reader should refer to our prior letter written for this area in 2023 for a detailed explanation of the long term and short term processes that are impacting the coastal bluff in this area. Nothing that has happened recently has changed our understanding of the ongoing retreat at this location.

EXISTING CONDITIONS

The coastal bluff appears to have recently failed further at this location, centered roughly around where a plastic corrugated CMP daylights out of the top of the bluff face. Pieces of the CMP lie within the landslide debris on the beach, so it is clear that landsliding tore off a portion of the CMP.

What is unclear is precisely what precipitated the failure and what the CMP role was in that failure, due to landsliding destroying the evidence. It is also unclear at this point as to whether the bedrock failed due to notching at the base of the bluff intersecting a bluff parallel joint set because the base of the bluff is covered with landslide debris and beach sand at this location. We would normally look to see if there is still an existing notch in the base of the bluff, or if the bluff face is flush with no notch indicating a recent failure.

An arcuate erosional scar has developed around the remnant of CMP within the blanket of soil (Marine Terrace Deposits) that lies atop the bedrock shelf. This is likely due to ongoing

erosion from storm water out of the CMP hitting the Marine Terrace Deposits soil and eroding them.

The Marine Terrace Deposits are very steep, nearly vertical, at the location of the recent landsliding (see photo below and the geological cross section on Plate 1).



WHAT WILL HAPPEN TO THIS SITE IN THE FUTURE?

If left alone, the Marine Terrace Deposits at this site will continue to erode back to an average angle of 38 degrees where they are over steepened, laying back to approximately where the drop inlet is located on the landward edge of the footpath. This may come about in one to three rainy seasons, particularly in the area centered on the CMP. Since this region is subject to wet and dry cycles that can last for years, we need to assign a range of years to the concept of one to three rainy seasons. The conservative analysis would assume that we will have back-to-back wet seasons for the next several years, which may lay back the marine terrace deposits to the angle of repose. A more liberal analysis would assume that we will enter a drought period of three to five years, followed by wet year. Using those ranges implies that the top of the bluff may retreat significantly within one to six vears.

During the course of this investigation, the concept of plugging the drop inlet that feeds the CMP was explored to try and arrest the ongoing erosion that is occurring around the CMP. It appears that a large area drains toward the drop inlet and that there are no other nearby storm drains in the area. If the drop inlet is plugged, storm water will pond in the vicinity of the drop inlet. If no provision is made to remove the ponded water (i.e. pumped out to a different drop inlet or storm drain) the ponded water will percolate into the soil on the inboard side of the footpath. This in turn will saturate the blanket of soil (the Marine Terrace



Deposits) that lies atop the uplifted bedrock shelf and will likely trigger a much larger and extensive failure of the Marine Terrace Deposits out of the face of bluff.

This is a situation where a choice must be made regarding the size of the failure that the drainage is causing. At this point, the existing damaged culvert that lies seaward of the drop inlet is eroding the area right around and below the outfall, causing the Marine Terrace Deposits to retreat in that location. As noted above, plugging the drop inlet may trigger a much more extensive failure of the bluff. Hence, if the smallest possible area to be affected is desired, we would recommend NOT plugging the culvert at this time.

As noted in our 2023 letter, the fate of the bluff and the retreat is always tied to what is happening at the base of the bluff with respect to notching and formation of sea caves. We have not factored in the collapse of the bluff bedrock or the landsliding and subsequent retreat that would occur at this site in the event of a large magnitude earthquake. If that process is factored in and occurs within the time period of one to six years, the amount of bluff retreat may be even greater.

FINDINGS

Turning to Plate 1, the reader may note that our projected one to six year bluff retreat line continues to impinge upon the seaward end of the residential properties. The prior projections in the 2023 letter have only been driven further landward by this recent event. This implies that even if the footpath is pushed landward and snugged up against those properties, it may be undermined and threatened in less than a decade.

The marine terrace deposits exposed in the upper bluff are in a very fragile state with respect to landsliding. The usage of heavy equipment within 15 feet of the top of the bluff, particularly if the soils are wet, may trigger further landsliding of the marine terrace deposits.

Plugging the drop inlet may trigger larger catastrophic landsliding out of the Marine Terrace Deposits, unless the resulting ponded storm water is not allowed to seep into the soil and is transported in a hard pipe out of the area.

Any drainage improvements made to current CMP arrangement may only have an effective shelf life of 10 years or less, depending upon the next series of failures in the bedrock and the Marine Terrace Deposits.

RECOMMENDATIONS

1. The City should consider the effective life of the footpath when contemplating short term and long term expenditures for keeping the footpath open. In the long term, the City will need to protect the entire bluff from further erosion and landsliding with very expensive topto-bottom armoring methods if they want to keep the existing alignment of the footpath open.



2. Any work performed on the footpath between Oakland Avenue and Saxon Avenue should be done by hand within 15 feet of the top of the bluff. The use of heavy vibratory equipment should be avoided if possible, to lessen the possibility of triggering further landsliding of the bluff. If heavy equipment is used, the work should only be performed when the marine terrace deposits are dry, typically late spring (May) through fall (October).

3. If improvements to the currently damaged CMP are pursued, we recommend that a Civil Engineer be retained to design drainage improvements with input from Pacific Crest Engineering. It is essential to understand the process of retreat at this location and what will drive the failure of any design implemented at this location.

This concludes our geological letter regarding the impacts of landslide and bluff top retreat for the Grand Avenue footpath between its intersection between Saxon Avenue and Oakland Avenue. Please do not hesitate to contact us if you have any questions about this letter or our work or need further assistance.

Sincerely,

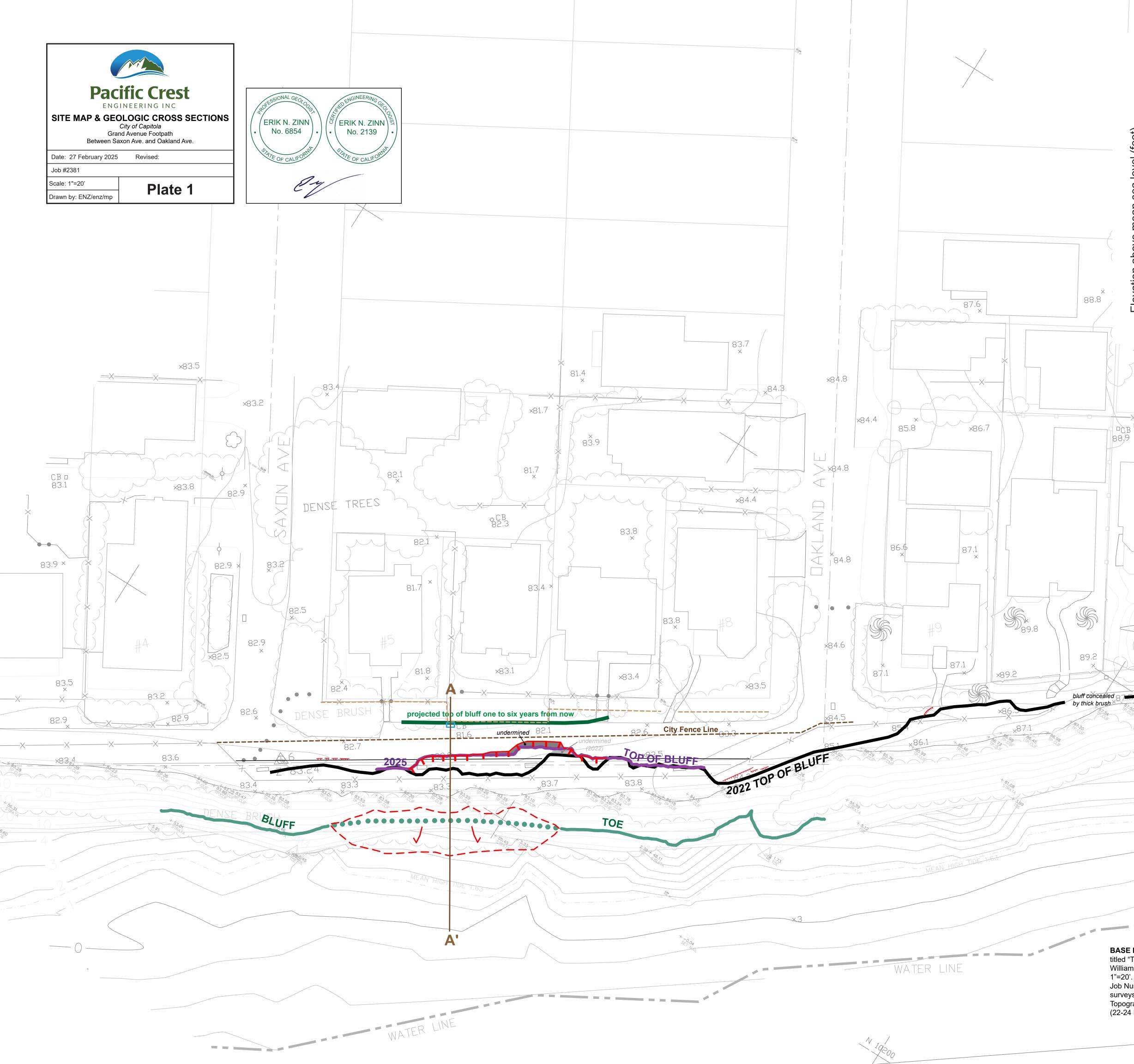
PACIFIC CREST ENGINEERING INC.

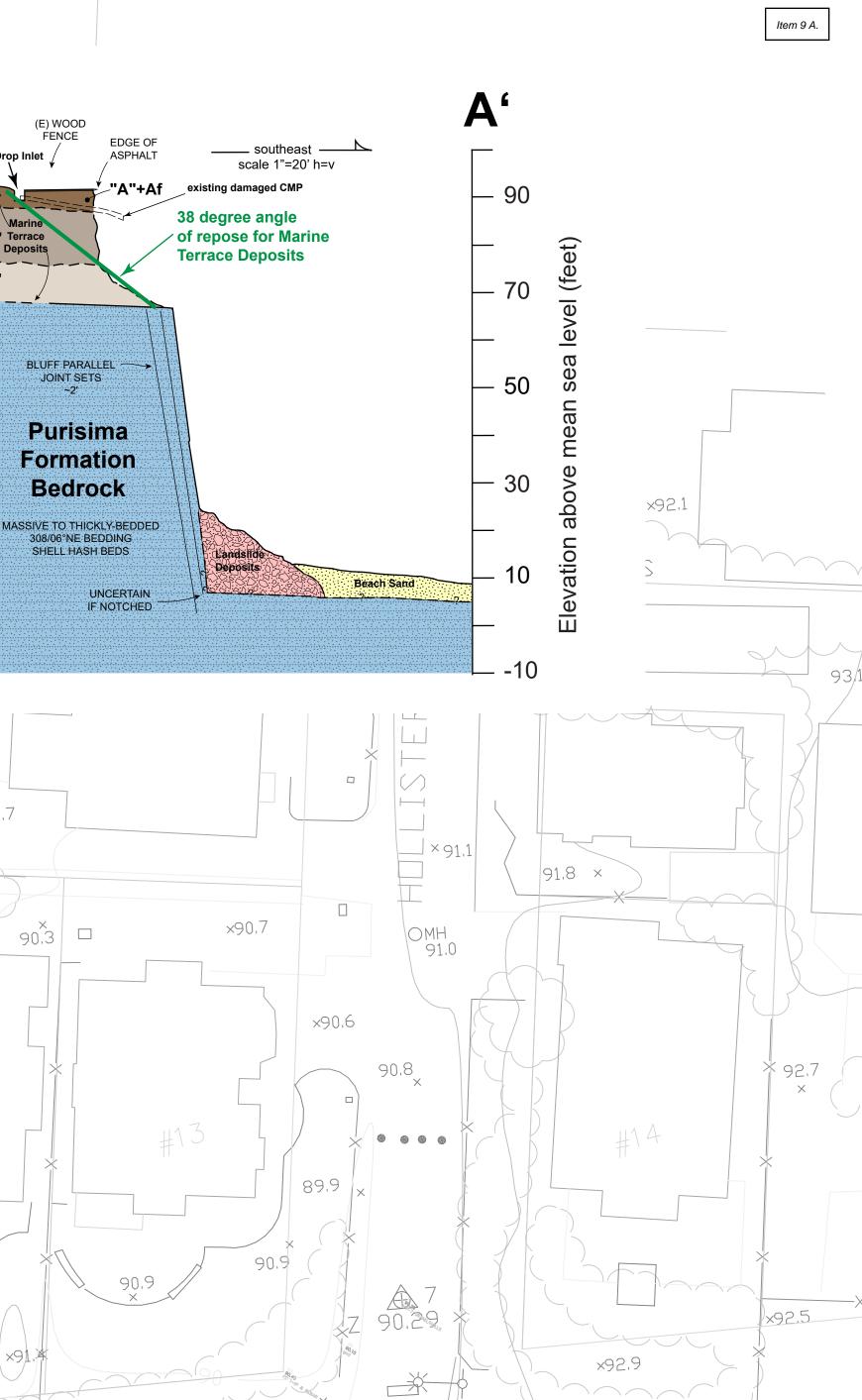


Principal Geologist P.G. #6854, C.E.G. #2139

Attachments: Plate 1 – Site Map & Geologic Cross Section







BASE MAP: Digitally excerpted from AutoCAD file of topographic map sheets titled "Topographic Map - Grand Avenue & Vicinty", prepared by Bowman & Williams - Consulting Civil Engineers with an intended publication scale of 1"=20'. The map respresents topography compiled from Aero-Geodetic Corp. Job Number 996942 (dated photgraphy 6 June 1999) and Bowman & Williams surveys (4 June 1999, 8-10 November 1999, 22-24 November 199). Topography along beach and toe of cliff was during low tide -1.3 feet (22-24 November 1999).

Α

80

60

40

20

-20

×89.7

90.6

(feet)

Ð

Ω

S C C C C

Ð

atio

Ш

(E) Drop Inlet

"C"

x-,3

Feet

40

0 10 20



GEOTECHNICAL | ENVIRONMENTAL | CHEMICAL | MATERIAL TESTING | SPECIAL INSPECTIONS

9 June 2023

Project No. 2381

City of Capitola, Public Works Attention: Jessica Kahn, Public Works Director 420 Capitola Ave Capitola, California 95010 Phone: (831) 475-7300 jkahn@ci.capitola.ca.us

Re: Limited geological investigation of coastal bluff failure Grand Avenue footpath near intersection with Oakland Avenue and Saxon Avenue Capitola, California 95010

Dear Jessica:

This letter presents the results of our limited geological investigation of the bluff failure that has undermined portions of the footpath along Grand Avenue between its intersection with Oakland Avenue and Saxon Avenue (see Plate 1).

Over the long term, the bluff below the footpath has been episodically retreating as the soil and bedrock exposed on the bluff face erodes and fails in the form of shallow landslides, debris flows and rock falls, mostly in response to intense storms, wave erosion and earthquakes. The most recent shallow landslides that have caused the top of the bluff to retreat and undermine the footpath this winter appear to have been driven by saturation of the marine terrace deposits soil that caps the underlying Purisima Formation bedrock, as well as toppling failures of slabs of the bedrock from top to bottom (see Plate 2).

The overall failure process for the coastal bluff at this location is a two-part process. The Purisima Formation bedrock exposed in the lower bluff is eroded and notched by waves until the notch intersects a nearly vertical bluff-parallel joint set, at which point a slab of bedrock topples, typically from top to bottom for the exposed slab. The bedrock topple process also takes the overlying marine terrace deposits along with it leaving a very steeply dipping to nearly vertical scar in the bluff face that freshly exposes both the bedrock and marine terrace deposits. At that point, the wave scour process begins anew at the base of the bluff, eventually carving another notch into the bedrock. The marine terrace deposits concurrently begin to erode and slide in a piecemeal fashion as they seek the angle of repose of about 38 degrees for the sand and gravels that compose that formation. This process continues unabated until the bedrock topples again in the future, resetting the entire retreat process geometry and clock.

We mapped the position of the bluff and the exposed formations using the base map by Bowman and Williams provided to us by the City of Capitola. We relocated the top of the bluff on that map as well as the fence line because the bluff has apparently receded since the last time that portion of the map was modified and the fence at the top of the bluff has been relocated in locations in response to the bluff failures.

The bluff is in various states of failure between Saxon and Oakland Avenues. Portions of the bluff failed from top to bottom in response to intense storms of this past winter. In some locations, the bedrock exposed in the bluff is dilated and appears to be primed for toppling. Deep notches within the bedrock at the base of the bluff and sea caves were observed during our field reconnaissance on 14 May 2023. Extensional fractures (marked by red hachured lines on Plate 1) were observed on the ground surface in several locations, which indicates that the Marine Terrace Deposits in the bluff face are continuing to fail in reaction to this past winter's landslide.

The base of the bluff where it intersects with the modern day wave cut platform (called the "shoreline angle") was covered by sand, landslide deposits and rubble during our 14 May 2023 reconnaissance. It is likely that the wave carved notches into the bedrock at the base of the bluff are even deeper than observed.

We also reviewed a geological report for the Depot Hill Geological Hazard Abatement District, prepared on 12 April 2000 by Rogers Johnson and Associates. The report documents a past calculated long term bluff retreat rate of about 1.0 feet per year at that time which seems reasonable based upon our experience with past geological investigations in this area. The authors also cautioned the reader that the bluff had been severely undercut at that point, implying that a large failure of the bluff was imminent. This process described by them isn't a one time event – as noted above this is an ongoing cyclical process that is constantly driving the face of the bluff landward.

As noted at the beginning of this letter, the fate of the bluff and the retreat is always tied to what is happening at the base of the bluff with respect to notching and formation of sea caves. We noted two distinct conditions with respect to that observation for the area studied:

1. Various portions of the bluff between Saxon and Oakland Avenues that occurred this winter appear to have been triggered by toppling of undercut bedrock (see Plate 2). Although we could not observe the absolute bottom of the base of the bluff in this area, since it is still obscured by sand and landslide debris, the volume of large sandstone blocks in the debris indicates that bedrock portion of the bluff failed, perhaps more than five feet of the undercut bluff face.

2. Some of landslides that occurred this winter between Saxon and Hollistr Avenues, appear to have been within the marine terrace deposits only (see Plate 2). The bedrock bluff face in some of those areas appears to be undercut by at least five feet and is primed to topple.



3. Although no landsliding occurred this past winter in some locations between Saxon and Oakland Avenues (see heavily vegetated areas on bluff face on Plate 2), the bedrock is primed to topple at this location due to being notched at the base.

Most of the marine terrace deposits in this area are over steepened and will likely lay back to an average angle of about 38 degrees. This may come about in one to three rainy seasons. Since this region is subject to wet and dry cycles that can last for years, we need to assign a range of years to the concept of one to three rainy seasons. The conservative analysis would assume that we will have back-to-back wet seasons for the next several years, which may lay back the marine terrace deposits to the angle of repose. A more liberal analysis would assume that we will enter a drought period of three to five years, followed by wet year. Using those ranges implies that the top of the bluff within Blocks A and C may retreat significantly within one to six years.

A review of the most recent El Nino status by NOAA (which can be accessed here: https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.pdf) indicates that "A transition from ENSO-neutral to El Niño is favored during May-July 2023, with chances of El Niño increasing to greater than 90% into the winter 2023-24." Although El Nino climatic conditions do not always result in greater than average precipitation and large storm waves, the condition itself raises the probability of those types of events impacting central California. If we have a repeat of this past storm season next year, the top of the bluff may retreat significantly by the end of next winter in the study area.

We have projected where the top of the bluff will retreat if the marine terrace deposits lay back to the angle of repose of about 38 degrees on two cross sections and the site map (see Plate 1). Using just this analysis pushes the top of the bluff back between 11 to 19 feet from the current position. This line represents the retreat that could happen in one to six years.

We have not factored in the collapse of the undercut portion of the bluff bedrock or the landsliding and subsequent retreat that would occur in the event of a large magnitude earthquake. If either of those processes are factored in and occur within that time period of one to six years, the amount of bluff retreat may be even greater.

On a final note, we understand that if the footpath is to be reopened, it will need to be repositioned further landward from its current position. Any work toward that end should be completed in a manner that will not exacerbate the tenuous stability of the marine terrace deposits exposed in the bluff face.



BLUFF TOP BETWEEN OAKLAND AND HOLLISTER AVENUES

We also mapped the current position of the top of the bluff between Oakland and Hollister Avenues. Portions of the bluff have continued to retreat since the author of this letter last looked at it in 2017 (Zinn Geology, 2017). The portion of the bluff nearest to the residence on the northeastern side of Oakland Avenue (402 Oakland Avenue) appears to have retreated the most in the last five years since we looked at this area, with very little of the original 2017 footpath remaining.

FINDINGS

Turning to Plate 1, the reader may note that our projected one to six year bluff retreat line impinges upon the seaward end of the residential properties. This implies that even if the footpath is pushed landward and snugged up against those properties, it may be undermined and threatened in less than a decade.

The marine terrace deposits exposed in the upper bluff are in a very fragile state with respect to landsliding. The usage of heavy equipment within 15 feet of the top of the bluff, particularly if the soils are wet, may trigger further landsliding of the marine terrace deposits.

RECOMMENDATIONS

1. The City should consider the effective life of the footpath when contemplating short term and long term expenditures for keeping the footpath open. In the long term, the City will need to protect the entire bluff from further erosion and landsliding with very expensive topto-bottom armoring methods if they want to keep the existing alignment of the footpath open.

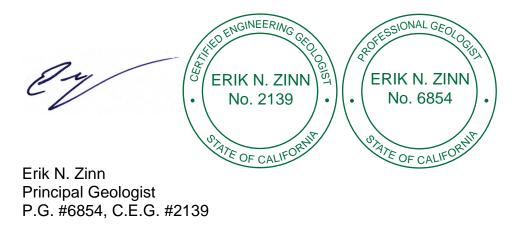
2. Any work performed on the footpath between Oakland Avenue and Saxon Avenue should be done by hand within 15 feet of the top of the bluff. The use of heavy vibratory equipment should be avoided if possible, to lessen the possibility of triggering further landsliding of the bluff. If heavy equipment is used, the work should only be performed when the marine terrace deposits are dry, typically late spring (May) through fall (October).



This concludes our geological letter regarding the impacts of landslide and bluff top retreat for the Grand Avenue footpath between its intersection between Saxon Avenue and Oakland Avenue. Please do not hesitate to contact us if you have any questions about this letter or our work or need further assistance.

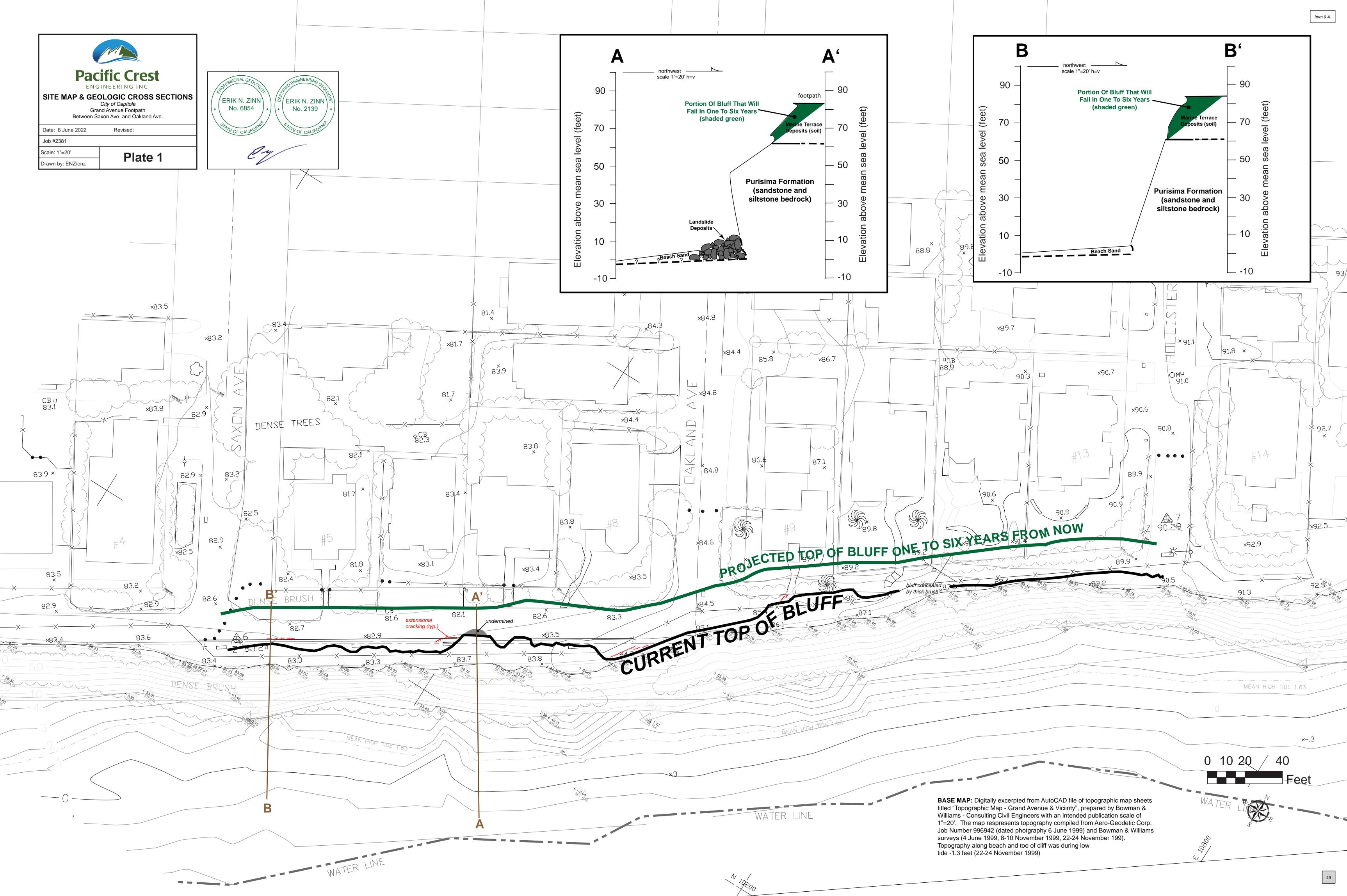
Sincerely,

PACIFIC CREST ENGINEERING INC.



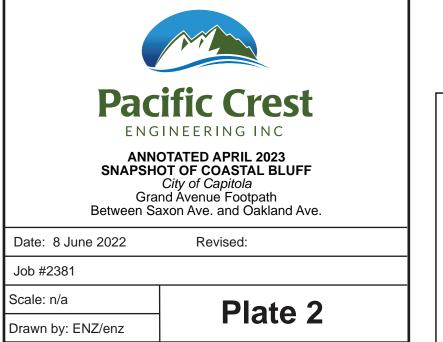
Attachments: Plate 1 – Site Map & Geologic Cross Sections Plate 2 – Annotated April 2023 Snapshot Of Coastal Bluff



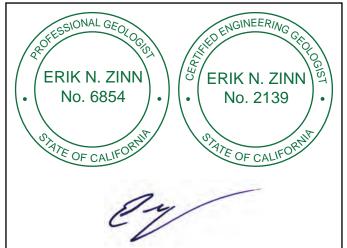


2023 04 04 Capitola Depot Hill and Esplanade





BASE PHOTO: Screen shot taken of "2023 04 04 Capitola Depot Hill and Explanade" by Misa Burich; drone video can be accessed at https://www.youtube.com/watch?v=Lt5N3-Gl5zM&t=1s



Contract of the second second

Marine Terrace Deposits

Purisima Formation Bedrock

The line water

••• •• ••



Revised 15 May 2017

Job #2017013-G-SC

City of Capitola, Public Works Attention: Steve Jesberg, Public Works Director 420 Capitola Ave Capitola, California 95010 Phone: (831) 475-7300 sjesberg@ci.capitola.ca.us

Re: Limited geological investigation of coastal bluff failure Grand Avenue near intersection with Oakland Avenue and Hollister Avenue Capitola, California 95010

Dear Mr. Jesberg:

This letter presents the results of our limited geological investigation of the bluff failure that has undermined the footpath along Grand Avenue between its intersection with Oakland Avenue and Hollister Avenue (see Plate 1).

The bluff below the footpath has been episodically retreating as the the soil and bedrock exposed on the bluff face erodes and fails in the form of shallow landslides, debris flows and rock falls, mostly in response to intense storms, wave erosion and earthquakes. The most recent shallow landslides that have caused the top of the bluff to retreat and undermine the footpath this winter appear to have been mostly driven by saturation of the marine terrace deposits soil that caps the underlying Purisima Formation bedrock.

The overall failure process for the coastal bluff at this location is a two-part process. The Purisima Formation bedrock exposed in the lower bluff is eroded and notched by waves until the notch intersects a nearly vertical bluff-parallel joint set, at which point a slab of bedrock topples. The bedrock topple process also takes the overlying marine terrace deposits along with it. This typically leaves behind a very steeply dipping to nearly vertical scar in the bluff face that exposes both the bedrock and marine terrace deposits. At that point, the wave scour process begins anew at the base of the bluff, eventually carving another notch into the bedrock. The marine terrace deposits simultaneously begin to erode and fail in a piecemeal fashion as they seek the angle of repose of about 38 degrees for the sand and gravels that compose that formation. This process continues unabated until the bedrock topples again in the future, resetting the retreat process clock.

Engineering Geology \otimes Coastal Geology \otimes Fault & Landslide Investigations

Limited geological investigation City of Capitola - Grand Avenue foot path Revised 15 May 2017 Page 2

We mapped the position of the bluff and the exposed formations using the base map by Bowman and Williams provided to us by the City of Capitola. We relocated the top of the bluff on that map because the bluff has apparently receded since the last time that portion of the map was modified.

The portion of the bluff studied for this investigation can be broken into three distinct zones based upon the stage of failure of the bedrock at the base (see Figure 1). The portion of the bluff nearest to the Oakland Avenue, designated "Block A", involved a toppling failure this past winter of the undercut bedrock and the marine terrace deposits. Additional failure of just the marine terrace deposits also occurred with Block A due to intense storms that saturated the slope of the upper bluff.

The portion of the bluff designated "Block B" on Figure 1 did not failure this winter. This block is marked by a vegetated upper bluff and a significantly undercut bedrock bluff face mid- and lower-bluff. This block is primed and ready to fail in a fashion similar to Block A.

The portion of the bluff designated "Block C" on Figure 1 failed only within the marine terrace deposits on the upper portion of the bluff. The bedrock exposed in the bluff face for this portion is undercut in a fashion similar to Block B and will likely fail in the near future.

We also reviewed a geological report for the Depot Hill Geological Hazard Abatement District, prepared on 12 April 2000 by Rogers Johnson and Associates. The report documents a past calculated long term bluff retreat rate of about 1.0 feet per year at that time which seems reasonable based upon our experience with past geological investigations in this area. The authors also cautioned the reader that the bluff had been severely undercut at that point, implying that a large failure of the bluff was imminent.

As noted at the beginning of this letter, the fate of the bluff and the retreat is always tied to what is happening at the base of the bluff with respect to notching and formation of sea caves. We noted two distinct conditions with respect to that observation for the area studied:

1. The landslide that occurred this winter closest to Oakland Avenue within Block A appears to have been triggered by toppling of undercut bedrock. Although we could not observe the base of the bluff in this area, since it is still obscured by landslide debris, the volume of large sandstone blocks in the debris indicates that bedrock portion of the bluff failed, perhaps as much as five to eight feet of the undercut bluff face.

2. The landslide that occurred this winter closest to Hollister Avenue in Block C, appears to have been within the marine terrace deposits only. The bedrock bluff face in this area appears to be undercut by at least ten feet and is primed to topple.

Limited geological investigation City of Capitola - Grand Avenue foot path Revised 15 May 2017 Page 3

3. Although no landsliding occurred within Block B, between the end blocks A and C, the bedrock is primed to topple at this location due to being notched at the base and overhung above the base (see Figure 1).

The marine terrace deposits within Blocks A and C are over steepened and will likely lay back to an average angle of about 38 degrees. This may come about in one to three rainy seasons. Since this region is subject to wet and dry cycles that can last for years, we need to assign a range of years to the concept of one to three rainy seasons. The conservative analysis would assume that we will have back-to-back wet seasons for the next several years, which will lay back the marine terrace deposits to the angle of repose. A more liberal analysis would assume that we will enter a drought period of three to five years, followed by wet year. Using those ranges implies that the top of the bluff within Blocks A and C may retreat significantly within one to six years.

A review of the most recent El Nino status by NOAA (which can be accessed here: <u>http://www.cpc.ncep.noaa.gov/products/analysis monitoring/lanina/enso evolution-status-fcsts-web.pdf</u>) indicates that El Nino neutral conditions are present, with increasing chances for El Nino development by late summer and fall. If we have a repeat of this past storm season next year, the top of the bluff may retreat significantly by the end of next winter.

We have projected where the top of the bluff will retreat if the marine terrace deposits lay back to the angle of repose of about 38 degrees on two cross sections and the site map (see Plate 1). Using just this analysis pushes the top of the bluff back from the its current 20 to 22 feet. This line represents the retreat that could happen in one to six years.

We have not factored in the collapse of the undercut portion of the bluff or the landsliding and subsequent retreat that would occur in the event of a large magnitude earthquake. If either of those processes are factored in and occur within that time period of one to six years, the amount of bluff retreat may be even greater.

Turning to Block B, we note that the marine terrace deposits are over steepened AND the bedrock is significantly undercut. Although there a is little bit more of a buffer between the top of the bluff and the current foot path for this block as compared to the other two blocks, the buffer is not enough push an expected time to undermining of the foot path beyond one to six years. Seismic shaking from a nearby earthquake (which can happen at any time) or another winter with large damaging waves will trigger a toppling failure of the bedrock, that will trim Block B and bring it in line with Block A.

On a final note, we understand that if the footpath is to be reopened, it will need to be repositioned further landward from its current position. Any work toward that end should be completed in a manner that will not exacerbate the tenuous stability of the marine terrace deposits exposed in the bluff face.

Limited geological investigation City of Capitola - Grand Avenue foot path Revised 15 May 2017 Page 4

FINDINGS

Turning to Plate 1, the reader may note that our projected one to six year bluff retreat line impinges upon the seaward end of the residential properties. This implies that even if the footpath is pushed landward and snugged up against those properties, it may be undermined and threatened in less than a decade.

The marine terrace deposits exposed in the upper bluff are in a very fragile state with respect to landsliding. The usage of heavy equipment within 15 feet of the top of the bluff, particularly if the soils are wet, may trigger further landsliding of the marine terrace deposits.

RECOMMENDATIONS

1. The City should consider the effective life of the footpath when contemplating short term and long term expenditures for keeping the footpath open. In the long term, the City will need to protect the entire bluff from further erosion and landsliding with relatively expensive armoring methods if they want to keep the footpath open.

2. Any work performed on the footpath between Oakland Avenue and Hollister Avenue should be done by hand within 15 feet of the top of the bluff. The use of heavy vibratory equipment should be avoided if possible to lessen the possibility of triggering further landsliding of the bluff. If heavy equipment is used, the work should only be performed when the marine terrace deposits are dry, typically late spring (May) through fall (October).

Sincerely, ZINN GEOLOGY

Erik N. Zinn Principal Geologist P.G. #6854, C.E.G. #2139



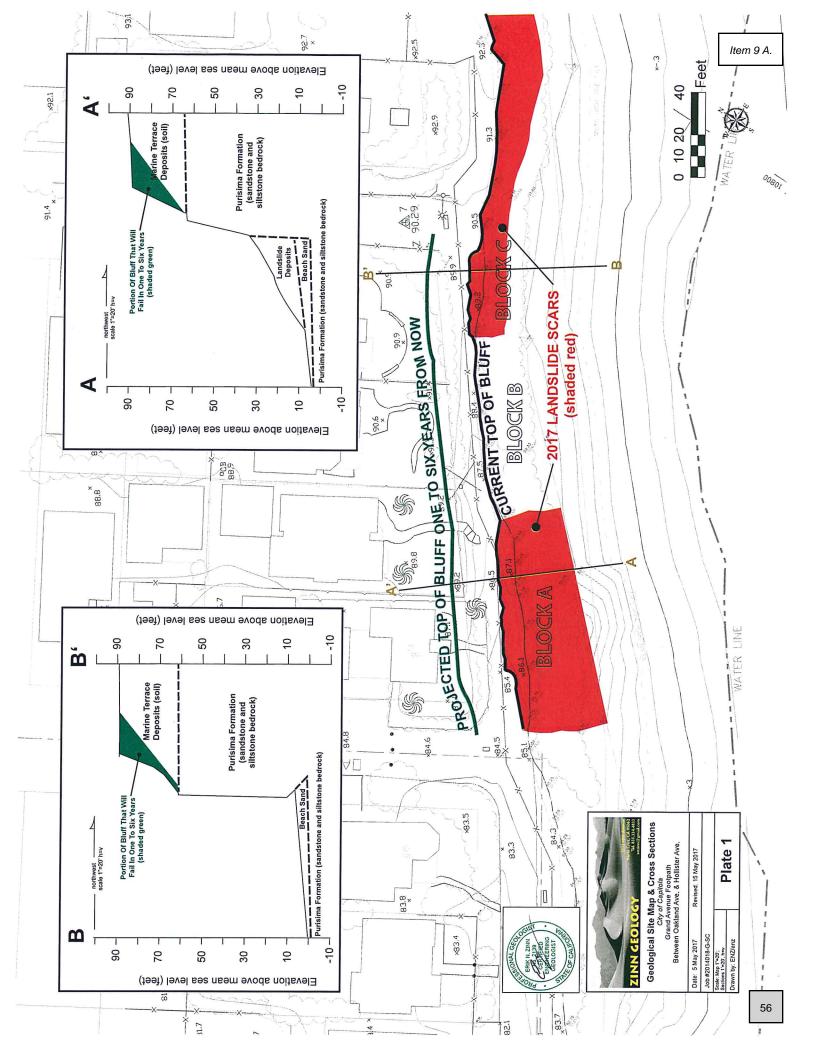
Attachment: Figure 1 - Oblique Photo Of Study Area On 19 April 2017 Plate 1 - Geologic Site Map And Cross Sections

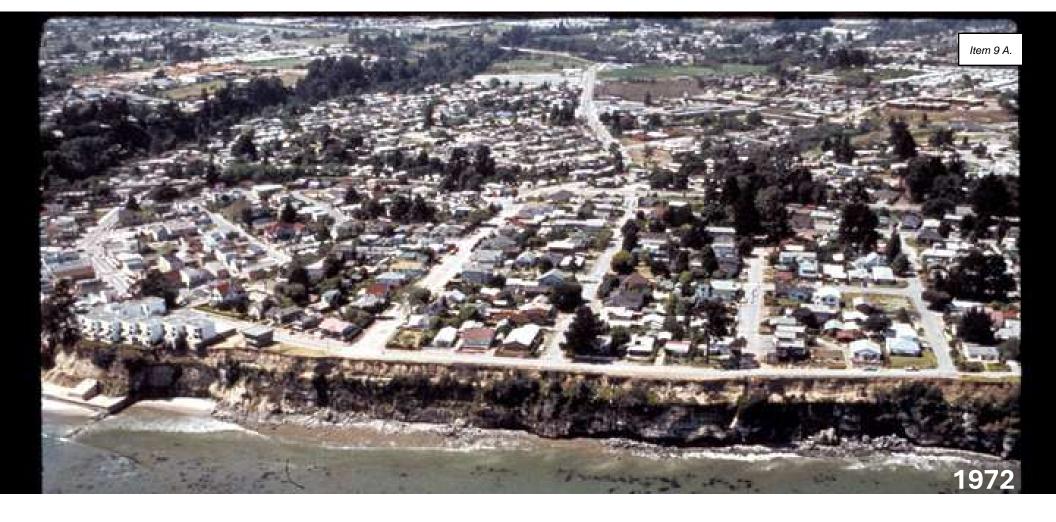


JOB # 2017013-G-SC **Oblique Photo Of Study Area On 19 April 2017** *City of Capitola* Grand Avenue Coastal Bluff Footpath Capitola, California

Item 9 A.







Grand Avenue Pathway

City Council

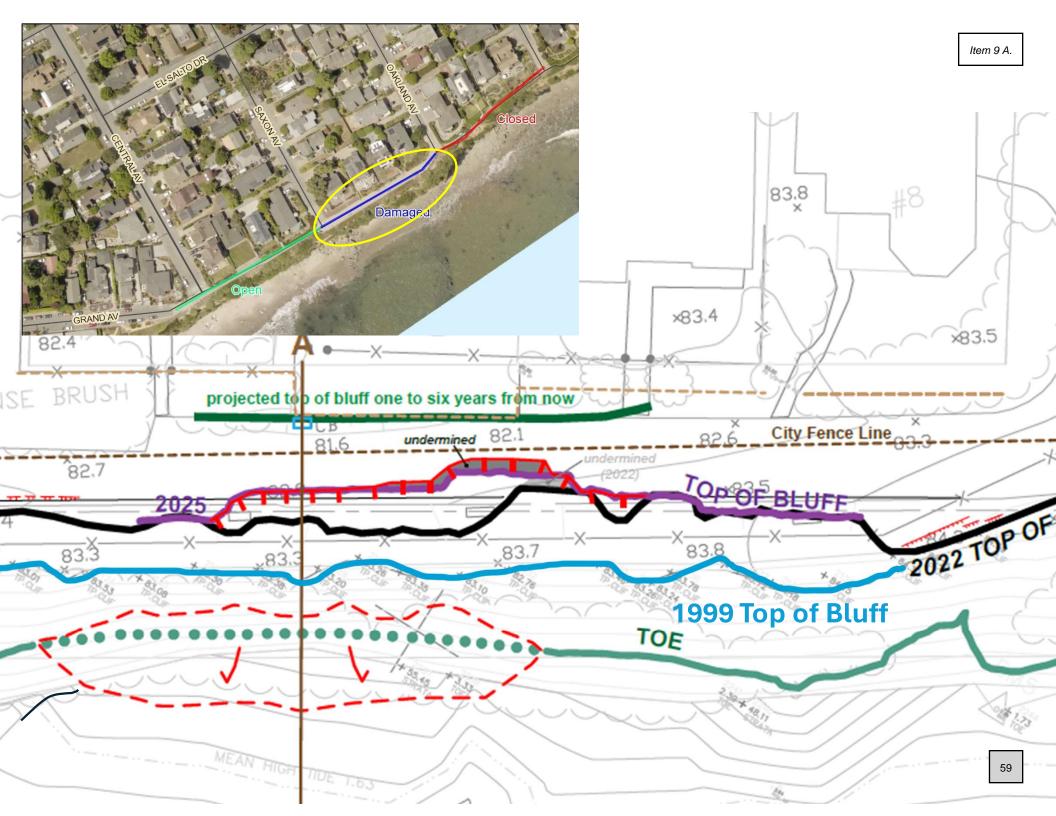
April 10, 2025

Grand Avenue Pathway Bluff Erosion Process



- Current pedestrian path: Central Avenue to Oakland Avenue
- Due to erosion, has faced multiple closures and relocations since 1980's
- Part of California Coastal Trail
- Previous efforts, including proposed seawall, denied due to concerns about effectiveness and environmental impact
- Damaged

Grand Avenue Pathway



Grand Avenue Pathway Bluff Erosion Process

Episodic Bluff Retreat

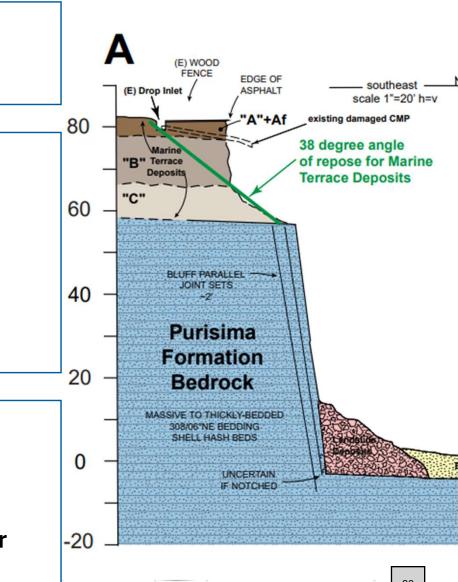
• Storms, wave action, earthquakes, and saturation of soil

Two-Part Failure Process:

- **1. Wave Erosion of Bedrock**
 - Waves notch into Purisima Formation bedrock until slab topples
- 2. Collapse of Upper Bluff
 - Overlying marine terrace soils collapse
 - Leaves a steep bluff face

Why It Keeps Failing:

- Loose sand/gravel from marine terrace deposits erodes gradually
- Naturally settle toward a **38-degree slope**
- Wave action restarts the cycle: erosion never fully stops



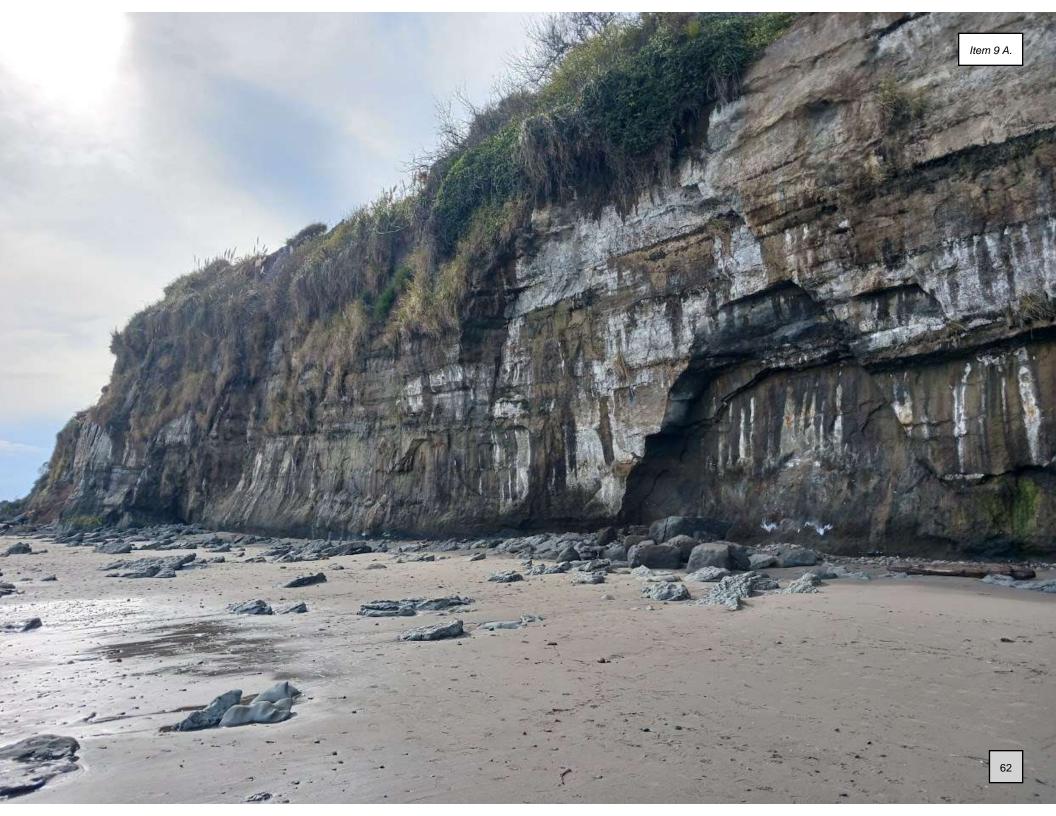






BASE PHOTO: Screen shot taken of "2023 04 04 Capitola Depot Hill and Explanade" by Misa Burich; drone video can be accessed at https://www.youtube.com/watch?v=Lt5N3-Gl5zM&t=1s





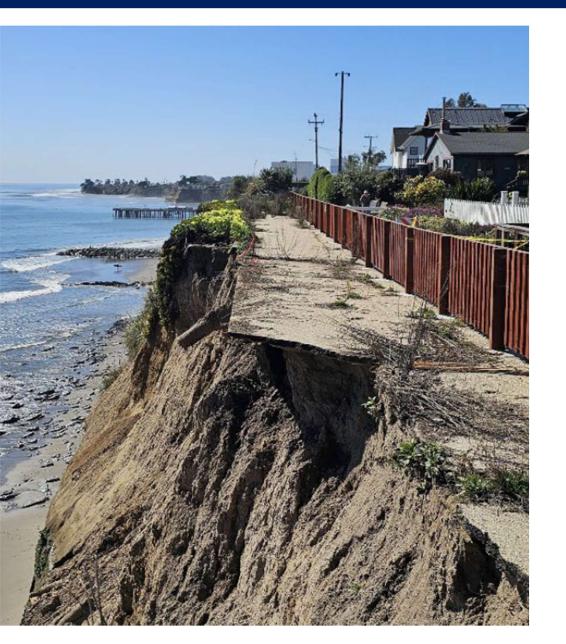
Grand Avenue Pathway Recent Developments





- February 2025: storms caused bluff failures between Saxon Avenue and Oakland Avenue.
- Undermined pedestrian path, damaged storm drain infrastructure
- Existing fencing, installed in 2023, remains but is no longer secure or safe

Grand Avenue Pathway Constrained Spaces and Challenges

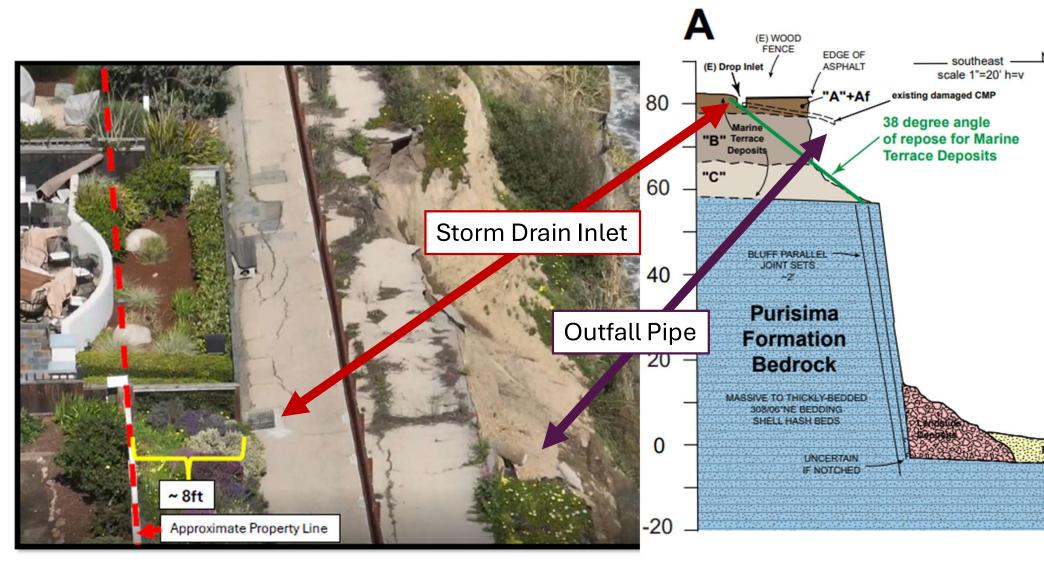


- Pathway is situated atop a narrow bluff (limited space for relocation)
- Encroachments from adjacent private properties further restrict available space



Grand Avenue Pathway Saxon Avenue to Oakland Avenue





Expected failure 1-6 years

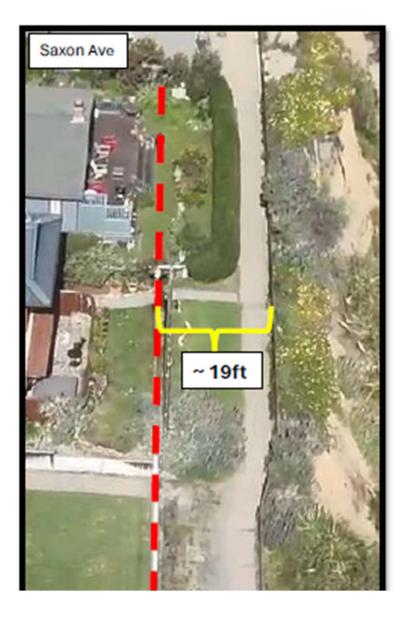
Grand Avenue Pathway Oakland Avenue to Hollister Avenue





Grand Avenue Pathway Central Avenue to Saxon Avenue







Challenges with Relocating the Path Inland

Item 9 A. Item 9 A.

Requires Engineering Design

Grand Avenue Pathway

- Drainage, slope stability, and safe pathway alignment.
- Engineering recommendations would include slope stabilization

Without Stabilization or Reinforcement

- 1 to ~6 year lifespan
- High failure risk
- Estimated Cost: hundreds of thousands
 - Drainage system reconstruction
 - o Encroachment removal
 - o Path grading
 - $_{\odot}$ Extensive hand labor due to constrained site

Grand Avenue Pathway Considerations for Engineered Pathway



Project Complexity

- Requires full engineering for drainage, slope, and safety
- Existing easements must be removed, presenting potential legal and logistical issues

Cost Estimate – Stabilization and Path

• Industry input indicates **multi-million-dollar** costs due to constrained site, specialized labor, and drainage design

Lifespan

 Even if built to current standards, the path may last only 10–20 years without full slope stabilization, due to ongoing natural bluff erosion

Grand Avenue Pathway Other Alternatives

Permanent Closure

- Close the pathway at Saxon Avenue (as done in 2017)
- Drainage improvements
- Would require a Coastal Development Permit
 - Potential mitigation
 - Could be appealed
- Costs in the \$100k range, depending on mitigation

Bluff Stabilization

- Revisit options like undercut filling, groins, or seawalls (e.g., 2018 Ad Hoc proposals)
- Potentially prohibitively high cost, permits, and environmental impacts



Grand Avenue Pathway Summary of Pathway Alternatives



Option	Estimated Cost	Lifespan	Key Challenges
Permanent Closure	Low - Moderate (staff time + permit + drainage/mitigation)	N/A	Loss of access, Coastal Development Permit (CDP) required, plaques
Relocate Without Engineering	Moderate (hundreds of thousands)	1 – ~6 years	High failure risk, CDP, no reinforcements, limited benefit
Relocate With Engineering	High (millions)	10–20 years	Requires design, CDP, drainage, easement removals, hand labor
Bluff Stabilization	Very High (many millions)	Long-term (if feasible)	Regulatory hurdles, environmental impacts, major permits (CDP+)

Capitola City Council Agenda Report

Meeting:April 10, 2025From:Public Works DepartmentSubject:Filtered Tobacco Products



<u>Recommended Action</u>: Provide direction to staff on whether to prepare a draft ordinance on the prohibition on the sale of filtered tobacco products for City Council consideration.

<u>Background</u>: In May 2023, the Santa Cruz County Board of Supervisors (Board) formed the Tobacco Waste Ad Hoc Subcommittee to develop consistent regional policy concerning tobacco waste. Over the 16 months leading to the adoption of the ordinance, the Subcommittee conducted community outreach, including managing and participating in numerous Countywide community outreach events (e.g., beach clean-ups, tabling events, student presentations). The Subcommittee also met with various local, regional, and environmental stakeholders and gave presentations to retailers, business interests, residents, and community leaders.

A dedicated website (<u>https://www.santacruzcountyca.gov/TobaccoWasteSubcommittee.aspx</u>) was launched as a central hub for information regarding tobacco waste and its public and environmental health impacts. The site includes news, event listings, and resources for individuals who want to quit smoking.

On October 29, 2024, the Santa Cruz County Board of Supervisors (Board) unanimously adopted an ordinance amending Chapter 5.60 of the Santa Cruz County Code (SCCC) regarding tobacco retailing licenses to prohibit the sale of filtered tobacco products in the unincorporated areas of the County (Attachment 1). The ordinance added subsection (J) of SCCC 5.60.040, which states that it shall be a violation of Chapter 5.60 "for any tobacco retailer or any of the tobacco retailer's agents or employees to sell or offer for sale, or to possess with intent to sell or offer for sale, Partially Inconsumable Cigarettes or Partially Inconsumable Cigars." "Partially Inconsumable" tobacco products contain embedded components or parts that are not intended to be consumed and are commonly referred to or marketed as "filters." The ordinance became effective on November 29, 2024, thirty-one days after final adoption. However, enforcement of subsection (J) of SCCC 5.60.040 will not begin until January 1, 2027, or on the date that at least two additional jurisdictions in Santa Cruz County approve a similar ordinance, whichever occurs later.

By adopting Ordinance No. 5461, Santa Cruz County became the first County nationwide to ban the sale of filtered tobacco products. Importantly, the ordinance specifically bans the sale of filtered cigarettes and cigars, rather than implementing an outright ban on tobacco products.

Regional Policy Efforts

The Subcommittee invited representatives from each of the four incorporated cities. Council Member Pederson was invited to participate on behalf of the City of Capitola and, in 2024, requested an informational presentation regarding the process of adopting a similar ordinance be agendized for a future City Council meeting.

Currently, the County and all four incorporated cities have adopted resolutions declaring tobacco waste as a threat to public health and the environment. The Capitola City Council adopted Resolution No. 4339 on October 12, 2023 (Attachment 2). The City of Santa Cruz is addressing the issue of tobacco waste through its Health in All Policies (HiAP) subcommittee and is hosting a tobacco retailers' meeting in April

2025 to gather input from businesses. A first reading of their draft ordinance is tentatively scheduled for June 2025.

On March 19, 2024, the City of Capitola Commission on the Environment received a presentation from the Public Health Division of the HSA regarding the County's ordinance. The Commission unanimously voted to recommend that Capitola City Council adopt a similar ordinance, prohibiting the sale of filtered tobacco products within the City of Capitola.

Environmental Impacts

Cigarette filters are composed of a form of plastic called cellulose acetate, which breaks down into microplastics that can persist in our environment for hundreds of years. In addition to being a major form of global plastic pollution, cigarette filters are toxic waste that leach hazardous chemicals such as lead, arsenic, and nicotine into the environment. Tobacco filters also provide no known health benefits to smokers and are found to cause more harm by increasing a smoker's frequency of puffs and causing deeper inhalations of smoke into their lungs (Attachment 3).

Cigarette filters are the most littered item in the world and a major source of plastic pollution in Santa Cruz County and Monterey Bay. The Office of National Marine Sanctuaries National Oceanic and Atmospheric Administration (ONMS NOAA) published a study in October of 2023 which analyzed marine debris data collected along the entire 276 miles of Monterey Bay National Marine Sanctuary (MBNMS) shoreline between January 1, 2017, and December 31, 2021. The study found that 24.5% of beach trash was smoking-related, with cigarette filters comprising 94.4% (Attachments 4 and 5).

To help address this issue locally, the City contracts with Save Our Shores to conduct public Capitola Beach cleanup events. During Fiscal Year 2023-24, Save Our Shores conducted four cleanups and during Fiscal Year 2024-25, they conducted six cleanups. For each cleanup event, Save Our Shores records data provided by volunteers on the types and total amounts of litter collected. During Fiscal Year 2023-24, cigarette butts were consistently among the most commonly collected items, with 430 cigarette butts collected over four beach cleanups (Attachment 6).

<u>Discussion:</u> HSA has identified a list of ten active cigarette tobacco retailers within the City of Capitola selling filtered tobacco products that would be impacted by a potential ordinance (Attachment 7), including five gas stations, four liquor stores, and one market. County staff confirmed that none of the retailers currently rely solely on the sale of filtered tobacco products for revenues, however, businesses may experience a decline in sales.

If Council directs staff to proceed, the City will coordinate with the Capitola Police Department and HSA staff to confirm the list of affected businesses and begin community outreach. This outreach would focus on tobacco retailers and other stakeholders. Staff will also identify resources to support compliance and assist with implementation.

<u>Fiscal Impact</u>: There is no direct fiscal impact at this time. Implementing the ordinance would incur staffing costs for the Police Department to ensure compliance and could result in a limited reduction in sales tax revenue. However, the exact fiscal impacts cannot be determined at this time.

Attachments:

- 1. Santa Cruz County Ordinance No. 5461
- 2. City of Capitola Resolution No. 4339
- 3. Special Communication Article from San Diego State University School of Public Health (Novotny and Hamzai, 2023)
- 4. ONMS NOAA Fact Sheet
- 5. MBNMS Marine Debris Final Report 2023 <u>https://montereybay.noaa.gov/resourcepro/reports/2023marinedebris-</u> <u>report.html#:~:text=Key%20findings%3A,up%20during%20MBNMS%20beach%20cleanups</u>.
- 6. Save Our Shores Annual Report for Capitola Beach Cleanups (Fiscal Year 2023-2024)

7. List of Active Cigarette Tobacco Retailers within the City of Capitola

This report was modified on April 9, 2025 to correct the COE meeting date where this topic was discussed.

<u>Report Prepared By</u>: Erika Senyk, Environmental Projects Manager <u>Reviewed By</u>: Julia Moss, City Clerk, Jessica Kahn, Public Works Director <u>Approved By</u>: Jamie Goldstein, City Manager



BEFORE THE BOARD OF SUPERVISORS OF THE COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA

ORDINANCE NO. 5461

ORDINANCE AMENDING CHAPTER 5.60 OF THE SANTA CRUZ COUNTY CODE REGARDING TOBACCO RETAILING LICENSE TO PROHIBIT SALE OF FILTERED TOBACCO PRODUCTS

The Board of Supervisors of the County of Santa Cruz hereby finds and declares the following:

WHEREAS, cigarette filters, or butts, are the most littered item on Santa Cruz County's riverways and beaches, where they are washed into the Monterey Bay and contribute to a common form of litter in the world's oceans; and

WHEREAS, cigarette butts are an unsightly blight on Santa Cruz County sidewalks, parks, playgrounds, recreation trails, and other public spaces; and

WHEREAS, cigarette butts are made of cellulose acetate, a nonbiodegradable plastic, which breaks down into microplastics and bioaccumulates in marine organisms; and

WHEREAS, cigarette butts are not just litter but toxic waste, leaching dangerous chemicals such as lead, arsenic, and nicotine in the environment; and

WHEREAS, improperly discarded cigarette butts can poison small children, pets, wildlife, and marine life; and

WHEREAS, improperly discarded cigarette butts are a fire hazard, responsible for burning 88,898 acres in California since 1980; and

WHEREAS, cigarette butts do not actually filter out harmful chemicals from cigarette smoke and provide no demonstrated health benefits to smokers; and

WHEREAS, emerging forms of tobacco waste include electronic cigarettes or vaping devices, and the e-juice, cartridges, batteries, and accessories associated with them; and

WHEREAS, tobacco waste is a health equity issue, disproportionately found in lower income communities and communities of color; and

WHEREAS, tobacco manufacturers take no responsibility for tobacco waste, forcing the physical and financial burden of cleanup onto local government agencies and volunteer organizations; and

WHEREAS, previous approaches including anti-litter laws, anti-smoking signage, increased waste disposal containers, smoking prohibitions in public places and robust cleanup efforts have failed to solve the problem; and

WHEREAS, on May 16, 2023, the Board of Supervisors of the County of Santa Cruz adopted Resolution No. 101-2023 that declared tobacco waste a public health and environmental threat to the residents of the County of Santa Cruz; and

WHEREAS, Resolution No. 101-2023 also created a tobacco waste ad hoc committee to work with County staff and local stakeholders to create a process for advancing policies to reduce or eliminate cigarette butt litter, including drafting an ordinance that would prohibit the sale of plastic filtered tobacco products in the County of Santa Cruz; and

WHEREAS, it is appropriate to update certain provisions of Chapter 5.60 of the Santa Cruz County Code to prohibit the sale of filtered tobacco products;

NOW, THEREFORE, the Board of Supervisors of the County of Santa Cruz hereby ordains as follows:

SECTION I

Subsections (B) and (C) of Section 5.60.010 of the Santa Cruz County Code are hereby amended to read:

5.60.010 Purpose and application.

(B) State law permits local governments to enact local tobacco retail licensing ordinances and allows for the suspension or revocation of a local license for a violation of any State tobacco control law. State law further permits local governments to restrict the sale of tobacco products beyond the restrictions that have been imposed by the State legislature.

(C) This chapter is adopted to (1) ensure compliance with business standards and practices of the County; (2) encourage responsible tobacco retailing; (3) discourage violations of tobacco-related laws; and (4) address the environmental harm and reduce the clean-up costs to the County that arise from the widespread availability of cigarettes and cigars which are marketed as "filtered." This chapter is not intended to expand or reduce the degree to which

the acts regulated by federal or State law are criminally proscribed or otherwise regulated.

SECTION II

Section 5.60.020 of the Santa Cruz County Code is hereby amended to read:

5.60.020 Definitions.

(A) "Characterizing flavor" means a taste or aroma, other than the taste or aroma of tobacco, imparted either prior to or during consumption of a tobacco product or any byproduct produced by the tobacco product, including, but not limited to, tastes or aromas relating to menthol, mint, wintergreen, fruit, chocolate, vanilla, honey, candy, cocoa, dessert, alcoholic beverage, herb, or spice; provided, however, that a tobacco product shall not be determined to have a characterizing flavor solely because of the use of additives or the provision of ingredient information.

(B) "Cigar" means any roll of tobacco wrapped entirely or in part in leaf tobacco or any substance containing tobacco.

(C) "Cigarette" means:

(1) any roll of tobacco wrapped in paper or in any substance not containing tobacco; and

(2) any roll of tobacco wrapped in any substance containing tobacco which, because of its appearance, the type of tobacco used in the filler, or its packaging and labeling, is likely to be offered to, or purchased by, consumers as a cigarette described herein.

(D) "Consumer" means a person who purchases a tobacco product for consumption and not for sale to another.

(E) "Department" means the Santa Cruz County Health Services Agency.

(F) "Drug paraphernalia" shall have the definitions set forth in California Health and Safety Code Section 11014.5, as that section may be amended from time to time.

(G) "Electronic smoking device" means any device that may be used to deliver any aerosolized or vaporized substance to the person inhaling from the device, including, but not limited to, an e-cigarette, e-cigar, e-pipe, vape pen, e-hookah, or similar product. Electronic smoking device includes any component, part, or accessory of the device, and includes any substance that may be

aerosolized or vaporized by such device, whether or not the substance contains nicotine.

(H) "Flavored tobacco product" means any tobacco product or tobacco paraphernalia that imparts a characterizing flavor.

(I) "Health Officer" means the Health Officer of the County of Santa Cruz or their designee.

(J) "Labeling" means written, printed, or graphic matter upon any tobacco product or any of its packaging, or accompanying such tobacco product.

(K) "Law Enforcement Officer" means a California Certified Peace Officer and/or County of Santa Cruz Sheriff's Office designated Community Service Officer.

(L) "License" means a tobacco retailer license issued by the County pursuant to this chapter.

(M) "Licensee" means any proprietor holding a license issued by the County pursuant to this chapter.

(N) "License fee" means the charge established by resolution of the Board of Supervisors, calculated to recover the reasonable regulatory costs of issuing and administering licenses, retailer education, performing investigations, inspections, and the administrative enforcement and adjudication thereof.

(O) "Manufacturer" means any person, including any repacker or relabeler, who manufactures, fabricates, assembles, processes, or labels a tobacco product; or imports a finished tobacco product for sale or distribution into the United States.

(P) "Package" or "packaging" means a pack, box, carton, or container of any kind or, if no other container, any wrapping (including cellophane) in which a tobacco product is sold or offered for sale to a consumer.

(Q) "Partially Inconsumable Cigar" means any Cigar containing an embedded component or part commonly referred to or marketed as a filter that is not intended to be consumed, whether it is made of any material including, but not limited to, plastic, cellulose acetate, other fibrous plastic material, or any other inorganic, organic, or biodegradable material.

(R) "Partially Inconsumable Cigarette" means any Cigarette containing an embedded component or part commonly referred to or marketed as a filter that is not intended to be consumed, whether it is made of any material including, but not limited to, plastic, cellulose acetate, other fibrous plastic material, or any other inorganic, organic, or biodegradable material.

(S) "Person" means any natural person, partnership, cooperative association, corporation, personal representative, receiver, trustee, assignee, or any other legal entity.

(T) "Proprietor" means a person with an ownership or managerial interest in a business. An ownership interest shall be deemed to exist when a person has a 10 percent or greater interest in the stock, assets, or income of a business other than the sole interest of security for debt. A managerial interest shall be deemed to exist when a person can or does have or share ultimate control over the day-to-day operations of a business.

(U) "Sale" or "Sell" means any transfer, exchange, barter, gift, offer for sale, or distribution for a commercial purpose, in any manner or by any means whatsoever.

(V) "Self-service display" means the open display or storage of tobacco products or tobacco paraphernalia in a manner that is physically accessible in any way to the general public without the assistance of the retailer or employee of the retailer and a direct person-to-person transfer between the purchaser and the retailer or employee of the retailer. A vending machine is a form of selfservice display.

(W) "Tobacco paraphernalia" means any item designed or marketed for the consumption, use or preparation of tobacco products.

(X) "Tobacco product" means:

(1) Any product containing, made, or derived from tobacco or nicotine that is intended for human consumption, whether smoked, heated, chewed, absorbed, dissolved, inhaled, snorted, sniffed, or ingested by any other means, including but not limited to cigarettes, cigars, little cigars, chewing tobacco, pipe tobacco, or snuff;

(2) Any electronic smoking device; and

(3) Any component, part, or accessory intended or reasonably expected to be used with a tobacco product, whether or not sold separately.

"Tobacco product" does not include drugs, devices, or combination products authorized for sale by the United States Food and Drug Administration, as those terms are defined in the Federal Food, Drug and Cosmetic Act.

(Y) "Tobacco retailer" means any person or business who sells, offers for sale or distribution, exchanges, or offers to exchange for any form of consideration, tobacco, tobacco products, or tobacco paraphernalia without regard to the quantity sold, distributed, exchanged, or offered for exchange.

(Z) "Tobacco retailing" means selling, offering for sale, exchanging, or offering to exchange for any form of consideration, tobacco, tobacco products, or tobacco paraphernalia without regard to the quantity sold, offered for sale, exchanged, or offered for exchange.

SECTION III

Subsection (A) of Section 5.60.030 of the Santa Cruz County Code is hereby amended to read:

5.60.030 Mandatory tobacco retail license.

(A) Any person intending to act as a tobacco retailer shall obtain a tobacco retailing license for each location at which tobacco retailing is to occur. No person shall engage in tobacco retailing in the County of Santa Cruz without first obtaining and maintaining a valid License for each location from which tobacco retailing is to occur.

SECTION IV

Subsection (J) of Section 5.60.040 of the Santa Cruz County Code is hereby added to read:

5.60.040 Issuance of tobacco retail license.

(J) It shall be a violation of this chapter for any tobacco retailer or any of the tobacco retailer's agents or employees to sell or offer for sale, or to possess with intent to sell or offer for sale, Partially Inconsumable Cigarettes or Partially Inconsumable Cigars.

(1) There shall be a rebuttable presumption that a tobacco retailer in possession of four or more packages containing any Partially Inconsumable Cigarettes or Partially Inconsumable Cigars possesses such packages of Partially Inconsumable Cigarettes or Partially Inconsu

SECTION V

Subsection (A) of Section 5.60.090 of the Santa Cruz County Code is hereby amended to read:

5.60.090 Inspections, investigations and enforcement.

(A) Compliance with this chapter shall be monitored by the Department or any law enforcement officer. Employees of the Department or a law

enforcement officer may conduct inspections and investigations, including but not limited to youth decoy operations. All licensed premises must be open to inspection by the Department or any law enforcement officer during regular business hours.

SECTION VI

The adoption of this ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15061(b)(3) because there is no reasonably foreseeable significant impact on the environment and CEQA Guidelines Section 15308 because the actions taken is for the protection of the environment.

SECTION VII

Should any section, clause, or provision of this Ordinance be declared by the courts to be invalid, the same shall not affect the validity of the Ordinance as a whole, or parts thereof, other than the part so declared to be invalid.

SECTION VIII

This ordinance shall take effect on the 31st day after final adoption. Enforcement of subsection (J) of SCCC 5.60.040 shall begin January 1, 2027 or on a date that two additional jurisdictions in the County approve a similar ordinance, whichever date is later.

PASSED AND ADOPTED by the Board of Supervisors of the County of Santa Cruz, State of California, this <u>29th</u> day of <u>October</u>, <u>2024</u>, by the following vote:

AYES: Supervisors Koenig, Friend, Hernandez, McPherson, and Cummings NOES: None ABSENT: None ABSTAIN: None

Justin (ummings

11/15/2024

Justin Cummings Chair of the Board of Supervisors

ATTEST:

11/15/2024

Juliette Rezzato Clerk of the Board

Juliette Reggato

RESOLUTION NO. 4339

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CAPITOLA RECOGNIZING TOBACCO WASTE AS A PUBLIC HEALTH AND ENVIRONMENTAL THREAT

WHEREAS, cigarette butts are the most littered item on Santa Cruz County's riverways and beaches, where they are washed into the Monterey Bay and contribute to a common form of litter in the world's oceans; and

WHEREAS, cigarette butts are an unsightly blight on City of Capitola sidewalks, parks, playgrounds, recreation trails, Capitola Beach, and other public spaces; and

WHEREAS, Since 2018, local nonprofit Save Our Shores has collected 116,748 cigarette butts from Monterey Bay beaches, open spaces, and public areas; and

WHEREAS, cigarette butts are made of cellulose acetate, a non-biodegradable plastic, which breaks down into microplastics and bioaccumulates in marine organisms; and

WHEREAS, cigarette butts are not just litter but toxic waste, leaching dangerous chemicals such as lead, arsenic, and nicotine into the environment; and

WHEREAS, improperly discarded cigarette butts can poison small children, pets, wildlife, and marine life; and

WHEREAS, improperly discarded cigarette butts are a fire hazard, responsible for burning 88,898 acres in California since 1980; and

WHEREAS, cigarette butts do not actually filter out harmful chemicals from cigarette smoke and provide no demonstrated health benefits to smokers; and

WHEREAS, emerging forms of tobacco waste include electronic cigarettes or vaping devices, and the e-juice, cartridges, batteries, and accessories associated with them; and

WHEREAS, tobacco waste is a health equity issue, disproportionately found in lower income communities and communities of color; and

WHEREAS, Big Tobacco takes no responsibility for its toxic waste, forcing the physical and financial burden of cleanup onto local government agencies and volunteer organizations; and

WHEREAS, previous approaches including anti-litter laws, anti-smoking signage, increased waste disposal containers, and robust cleanup efforts have failed to solve the problem.

NOW, THEREFORE, BE IT RESOLVED, that the Capitola City Council hereby recognizes and declares tobacco waste a public health and environmental threat to the residents of the City of Capitola.

I HEREBY CERTIFY that the foregoing Resolution was passed and adopted by the City Council of the City of Capitola, California, at a regular meeting held this 12th day of October, by the following vote:

AYES:	BROOKS, CLARKE, PEDERSEN, BROWN, KEISER
NOES:	NONE
ABSENT:	NONE
ABSTAIN:	NONE
	DocuSigned by:
	Margaus keiser

ATTEST: Jula Gautus 405294CAF17F40B... Margaux Keiser, Mayor

Julia Gautho, City Clerk



School of Public Health, San Diego State University, San Diego, California, USA

Correspondence to

Professor Thomas E Novotny; tnovotny@sdsu.edu

Received 6 January 2023 Accepted 4 April 2023 Published Online First 18 April 2023

Cellulose acetate cigarette filter is hazardous to human health

Thomas E Novotny 💿 , Laila Hamzai

ABSTRACT

The World No Tobacco Day 2022 theme emphasised tobacco's adverse environmental effects, including through agriculture, manufacturing, distribution, use and the disposal of tobacco product waste. A main concern regarding this toxic waste is the cigarette filter, which is attached to nearly all commercial cigarettes and is predominantly made from a plant-based plastic (cellulose acetate). Laboratory studies have demonstrated the chemical toxicity of discarded cigarette butts, and there is growing public concern regarding environmental plastic pollution resulting from single-use cellulose acetate filters. Important considerations are whether the filter has any protective role against the harms of smoking and whether it should be regulated as a plastic environmental pollutant. There is persistent misunderstanding among smokers and policy makers about the implied value of the cigarette filter. The cellulose acetate filter is simply a marketing tool that encourages smoking initiation and reduces intentions to guit smoking. This is because it makes smoking easier and implies added safety through the presumed filtration of inhaled smoke. The sale of filtered cigarettes should be prohibited to protect public health and the environment.

INTRODUCTION

The harms of smoking have been recognised for decades, yet almost 6 trillion commercial cigarettes are sold globally each year, and an estimated 8 million people die each year due to smokingattributable diseases. Recently, scientists and advocates have described the toxicity and potential ecological impacts resulting from the environmental deposition of trillions of cigarette butts. WHO's World No Tobacco Day 2022 addressed tobacco's life cycle impact on the environment.¹ In 2021, the California Tobacco Control Program (CTCP) of the California Department of Public Health commissioned a review of the science, tobacco industry responses and policy approaches regarding tobacco product waste.²

The environmental focus on tobacco's harms is not new, as the evidence for harms to non-smokers by exposure to secondhand smoke has been understood for many years.³ In addition, recent research has described the health risks of third-hand smoke pollution (the toxic residues left behind in enclosed environments even after all smoking in these environments has ceased).⁴ Increasingly, environmentalists and tobacco control advocates understand the life cycle environmental harms from tobacco growing, manufacturing, distribution and disposal.⁵ A main concern regarding this toxic waste is

A main concern regarding this toxic waste is the cigarette filter, which is attached to nearly all

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ FIltered cigarettes do not protect people who smoke against the harms of smoking, yet plastic filters continue to be attached to almost all commercial cigarettes. They are the main component of tobacco product waste, the single most picked up item of trash globally.

WHAT THIS STUDY ADDS

⇒ This study summarises the history, marketing, industry deceptions, ecotoxicity, and misunderstandings regarding cellulose acetate filters. It redefines these cigarette components as tobacco additives that are harmful to human health and the environment.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study calls for regulatory policies on cellulose acetate filters as unecessary singleuse plastics. It suggests additional research is needed on the potential environmental and human harms due to toxic tobacco product waste.

commercial cigarettes and is predominantly made from a plant-based plastic (cellulose acetate).⁶ Discarded cigarette butts are known to leach out toxic tobacco chemicals, are poorly degradable across a variety of environmental conditions and may be a significant source of microplastic waste in aquatic and terrestrial environments.⁷ They have been the single most picked up waste item on beach and urban clean-ups for decades.⁸ Because of these environmental concerns, WHO, public health researchers and environmental advocates have called for a prohibition on the sale of single-use cigarette filters, no matter their composition.¹ In New York in 2021, legislators introduced the Tobacco Product Waste Reduction Act, banning the sale of filtered cigarettes and single-use e-cigarettes; it is still 'In Committee'.² In California, lawmakers introduced the Smoking Waste Pollution Prevention Act in 2022, which would have, as originally drafted, banned single-use tobacco products.² In March 2022, the United Nations Environment Assembly established a committee to draft a treaty to address the global plastic crisis. This committee met in November 2022 to plan treaty negotiations, and tobacco control advocates participated as stakeholders in this process in order to include prohibiting the single-use plastic filter in the treaty.

Because there are still widespread beliefs that the word 'filter' means that filtered cigarettes are safe

Check for updates

© Author(s) (or their employer(s)) 2024. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

To cite: Novotny TE, Hamzai L. *Tob Control* 2024;**33**:663–668. than unfiltered cigarettes, policy makers have been reluctant to take on the tobacco industry with regard to banning cellulose acetate filters.¹⁰ This Special Communication, based on the recently published CTCP white paper,² will review (1) the history of the cellulose acetate filter; (2) environmental concerns regarding cellulose acetate filters; (3) health concerns regarding the use of filtered cigarettes; and (4) the challenges in addressing the cellulose acetate filter as a health and environmental hazard.

The history of the cellulose acetate filter

Most available historical information is USA oriented, including key documents from the University of California San Francisco Truth Tobacco Industry Documents Library (https://www. industrydocuments.ucsf.edu/tobacco/). Filters were first used in the 1860s to keep loose tobacco out of smokers' mouths.¹¹ In the 1930s and 1940s, they were marketed to protect smokers from 'poisons', such as nicotine.¹² Although they were a popular novelty at first, filtered cigarettes did not affect unfiltered cigarette sales in the early 20th century.¹² By the mid-1950s, carcinogens such as arsenic, 3,4-benzpyrene and radioactive polonium were identified in cigarettes,¹³ implicating them as a contributor to the reported increase in lung cancer incidence.¹⁴ Internal tobacco industry documents reveal that their research units also identified carcinogens in tobacco and tobacco smoke,^{15–17} but the industry did not publicly report or acknowledge these findings. As tobacco companies focused on ways to eliminate carcinogens from their product, the research on filters increased in intensity.¹² Implicit and explicit product marketing focused on the presumed 'safety' of filtered cigarettes.¹² However, according to a 1958 internal company memo, Philip Morris scientists recognised that selective filtration of harmful compounds was 'a thermodynamic impossibility'.¹⁸ As for the cellulose acetate filter, industry researchers evaluated this in 1932 and determined that there was very little difference in nicotine content delivered between regular and filtered cigarettes.¹⁹ There were also other problems with the filter, such as fibres disbursing and being inhaled by smokers.^{20 21}

By the 1950s, cellulose acetate was the most commonly used filter material. In cooperation with tobacco companies, major chemical manufacturers (Hoechst Celanese and Tennessee Eastman) provided these filters.²² Cellulose acetate production for filters increased from 3 million tons in 1953 to 22 million tons in 1955. In 1957, a congressional committee investigation addressed 'false and misleading' advertisements by tobacco companies on the implied benefits of cigarette filters and concluded that the tobacco companies deceived the public regarding the safety of their products.¹²

The industry's overall shift to filtered cigarettes continued into the 1960s because of two important historical events. First, in 1962, the UK's Royal College of Physicians published *Smoking and Health*, highlighting the link between smoking and lung cancer and other diseases.²³ Second, the US Surgeon General's Advisory Committee on Smoking and Health published the landmark *Report on the Health Consequences of Smoking* in 1964, concluding that cigarette smoking is a cause of lung cancer and laryngeal cancer and the most important cause of chronic bronchitis.²⁴ These reports resulted in enormous press attention and likely encouraged tobacco industry marketing to emphasise the value of filtered cigarettes.

Almost all commercial cigarette filters are now made of cellulose acetate fibres along with paper and plasticisers. Some filters include activated charcoal, which may remove some gas-phase chemicals but not particulates or carbon monoxide.^{25 26}

86

According to the 2020 Federal Trade Commission (FTC) Cigarette Report, the US market share for filtered cigarettes across all major manufacturers was 99.8%.⁶

In Robert Proctor's historical volume, *Golden Holocaust*, a chapter entitled 'Filter Flimflam' summarised the three reasons why filters are now part of almost all commercial cigarettes. These are: (1) to lower the cost of manufacturing (cellulose acetate is cheaper than tobacco leaf); (2) to keep tobacco bits from entering the mouths of smokers; and (3) to convince people into thinking that filtered brands were somehow 'safer' than unfiltered brands.¹²

Environmental concerns regarding cigarette filters

Cigarette butts, mainly the cellulose acetate filter, have been the most commonly picked up item on International Coastal Cleanup, held worldwide each September, for almost all of the last 30 years.⁸ In 2020, nearly a million were collected, but this was far less than the more than 5 million picked up globally in 2019 (likely a result of the COVID-19 pandemic, with widespread reduction in group activities, non-essential travel and socialisation).⁸ Clean-up activities call attention to the problem of tobacco product waste, but because of the ubiquity of this waste source, they do not represent a valid surveillance system for quantifying tobacco waste or an intervention to substantially reduce it; they collect only a small proportion of the discarded tobacco waste products.

The negative impacts of cigarette filters on ecosystems and the organisms inhabiting them are now a growing field of research (table 1).²⁷ Recent reports mainly involve laboratory studies with microorganisms as well as with larger aquatic and terrestrial organisms. There is increasing concern about environmental microplastic contamination in general, including that derived from discarded cigarette filters.²⁸ A cigarette filter has 12000-15 000 cellulose acetate strands, and if discarded into aquatic or terrestrial environments, these fibres can disperse into ecosystems. Belzagui *et al*²⁹ modelled this process in a laboratory setting and estimated that a typical filter releases approximately 100 microfibres per day, most of which are less than 0.2 mm in size. They estimated that roughly 0.3 million tons of cellulose acetate filters are disposed of annually worldwide. The released microfibres may harm small aquatic organisms. In fact, microplastics have been found in fish and shellfish that may become part of the human food chain. Although the human health risks of aquatic microfibre pollution are uncertain, it is clear that humans are exposed to them and to the toxins that adhere to them through aquatic contamination.³⁰ Toxic chemicals, pharmaceuticals and microorganisms may sorb onto microplastics disposed into the environment, providing potential risks to human health.³¹

Approximately 800 chemical constituents were detected in one laboratory study of fresh and saltwater cigarette butt leachates;³² nicotine was the most abundant, which is a hazardous chemical previously used as a pesticide. Also found were diacetin and triacetin, which are plasticisers used in filter fabrication and attachment. Thirty-eight compounds found in the saltwater leachates were also identified in laboratory-exposed mussels.³² These leachates appeared to produce positive in vitro responses in these organisms for genotoxicity (increased activation of the aryl hydrocarbon receptor (a transcription factor that regulates gene expression)) and cytotoxicity (on the oestrogen receptor-p53 loop). In another leachate study, some leached nicotinic alkaloids were found to bioaccumulate in exposed rainbow trout.³³ These and other laboratory studies suggest a potential

Author (date)	Organism	Findings
Microbial		
Quéméneur et al (2020) ⁴⁹	Bacterial strains	Smoked cellulose acetate filters change diversity of microbial communities by depleting some microbes and enriching others. ⁴⁹
Aquatic		
Belzagui <i>et al</i> (2021) ²⁹	Water flea	Breakdown of cellulose acetate filter into microfibres induced more toxicity among water fleas than that from filter without microfibres, in some cases by fourfold. ²⁹
Green <i>et al</i> (2021) ⁵⁰	Mussel, macroalgae	Mussels exposed to leachates from whole butts with cellulose acetate filters had lower clearance rates, indicating increased toxicity compared with mussels exposed to other filters. Mesocosms exposed to cigarette butts with the cellulose acetate had lower chlorophyll content. ⁵⁰
Wright <i>et al</i> (2015) ⁵¹	Ragworm	Marine worms exposed to microfibre concentrations 60 times lower than those observed in urban run-off had negative behavioural and physiological changes, including longer burrowing time and significant weight loss. DNA damage was also twice that for exposed worms compared with unexposed worms. ⁵¹
Green <i>et al</i> (2020) ⁵²	Molluscs, flatworm	Exposure to leachates of five smoked cigarette butts (with cellulose acetate filters) per litre of water resulted in 60%–100% mortality of multiple mollusc species and flatworms within 5 days while lower concentrations showed reduction in activity among the organisms. ⁵²
Slaughter <i>et al</i> (2011) ⁵³	Fish	Unsmoked and smoked cigarette filter leachates were found to be toxic to both freshwater and marine fish. ⁵³
Lee and Lee (2015) ⁵⁴	Fish	Smoked cigarette filter leachates altered development of fish embryos and increased anxiety-like behaviour after hatching. At higher concentrations, both smoked and unsmoked filters increased mortality among the fish. ⁵⁴
Lawal and Ologundudu (2013) ⁵⁵	Frog, fish	Exposure to leachate from filtered cigarettes increased mortality among frogs. Exposure to smoked cigarette filter leachates was six and a half times more lethal to frogs and fishes compared with unsmoked filter leachates. ⁵⁵
Terrestrial		
Green <i>et al</i> (2019) ⁵⁶	Plants	Plants exposed to smoked filters, unsmoked filters or smoked filters with tobacco residue had significantly reduced germination success and initial growth. Alterations in chlorophyll content were also observed. ⁵⁶
Suárez-Rodríguez and Macías Garcia (2014) ⁵⁷	House finch	Finches use cellulose fibres from smoked cigarette butts to line their nests; genotoxic damage among the birds was positively associated with higher proportions of cellulose acetate, along with the adsorbed toxins in the filters, in the nests. ⁵⁷

risk to human health through consumption of cigarette butt-exposed biota. $^{\rm 34}$

Novotny *et al*³⁵ reviewed human and animal poison centre data for reports of accidental ingestion of tobacco products, including filters. The authors found that cigarette butt consumption by small children was a health concern likely due to indiscriminate eating behaviours and modelling adult behaviours. Veterinary reports of nicotine poisoning suggest that domestic animals have consumed butts and suffered serious gastrointestinal, central nervous system and cardiovascular effects.

Health concerns regarding use of filtered cigarettes

In 2001, the US National Cancer Institute (NCI) Monograph 13^{36} asserted that changes in machine-measured tar and nicotine yields in cigarette smoke due to filtration or other design changes (with the so-called 'FTC Method'³⁷) did not reduce smokers' actual exposure to tobacco toxicants. Chapter 6 (on 'Cancer') in the 2014 US Surgeon General's Report¹⁴ extensively reviewed the way changes in cigarette design have changed smoking-attributable lung cancer patterns. The population risks for lung cancer associated with smoking have increased over time, and for a particularly aggressive cell type of lung cancer (adenocarcinoma), incidence has increased. Incidence of other cell types (small cell, in particular) declined due to widespread smoking cessation. The evidence was sufficient to conclude that the increased risk of lung adenocarcinoma among smokers results from changes in the design and composition of cigarettes since the 1950s; however, the *Report* did not specify which changes these were.

A refinement to the filter, intended by the tobacco industry to lower the machine-measured tar and nicotine yields, is filter ventilation. This involves providing small holes in the filter that allow the dilution of the smoke when the cigarette is puffed. Because smokers need to extract sufficient nicotine to maintain their addiction, they obstruct the vents (so-called

Novotny TE, Hamzai L. Tob Control 2024;33:663-668. doi:10.1136/tc-2023-057925

compensatory smoking), and puff more deeply, thereby obviating any benefits from reduced toxin or nicotine delivery. The addition of ventilated filters has clearly changed the pattern of smoking, including more intense puffing, and this has changed the pattern of lung cancer incidence (ie, adenocarcinoma in particular). The elasticity of compensatory smoking negates any benefit from smoking low-tar, lownicotine yield (filtered) cigarettes.³⁸

Despite the accumulating evidence regarding the inability of 'filters' to eliminate toxic tobacco chemicals and the increase in lung adenocarcinoma incidence that is likely attributable to cigarette design changes,³⁹ there still seems to be uncertainty among the public⁴⁰ and some scientists about the health value of 'filters'. Notably, the 2014 US Surgeon General's Report on the Health Consequences of Smoking¹⁴ and the US NCI Monograph 13 reviewed previous longitudinal epidemiological studies showing potentially reduced risks from lowtar, low-nicotine yield cigarettes and concluded that filters and changes in design did not make cigarettes safer.³⁶ A more recent Research Letter concluded that smoking unfiltered cigarettes was 'more harmful than smoking filtered cigarettes'.⁴¹ The researchers found that, 'After adjustment, unfiltered cigarette smokers were nearly 40% (hazard ratio, 1.37; 95% CI, 1.10–1.17) more likely to develop lung cancer and nearly twice (hazard ratio, 1.96; 95% CI, 1.46-2.64) as likely to die of lung cancer compared with those who smoked filtered cigarettes'. However, it is important to recognise that this was a secondary analysis of data from a cohort study set up to assess the efficacy of tomographic (radiologic) screening in detecting lung cancer among high-risk smokers and not to assess the population-based risks of smoking unfiltered cigarettes.⁴² The limitations of that Research Letter are: (1) the population included in the study was extremely high risk (men and women aged 55-74 with >30 pack-year history or quit within the last 15 years); (2) there was limited adjustme

for socioeconomic status; and (3) the reported prevalence of unfiltered cigarette use in the study population was 11.4% (less than 1% of cigarette sales in the USA are of unfiltered cigarettes). Hence, that recent study mainly suggests there are multiple confounding factors that determine lung cancer mortality among those at the highest risk for lung cancer.

Conducting a study to measure the health effects of filtered versus unfiltered cigarettes would involve a clinical trial comparing exposures and disease incidence among those randomly selected to smoke filtered and unfiltered cigarettes. The logistical and ethical challenges for such a study would be extraordinary. To date, only a small pilot, proof-of-concept study has attempted such a controlled trial. It assessed perceptions, changes in smoking topography (inhalation and puffing patterns) and changes in exposure to nicotine and some carcinogens comparing filtered and unfiltered cigarette smoking.⁴³ Preliminary data from this trial suggest that committed smokers, when switched to unfiltered cigarettes, smoke fewer cigarettes per day and experience less satisfaction from their smoking.⁴⁴ They did not differ with respect to urinary cotinine (the main metabolite of nicotine) or selected carcinogen exposure (Eval Oren, personal communication, principal investigator).

Challenges in addressing the cellulose acetate filter as a health and environmental hazard

Many smokers and non-smokers still believe that filtered cigarettes are safer than unfiltered cigarettes, and most do not know that almost all commercial cigarettes have plastic filters. Using a population-based sample of 2979 adult nonsmokers, former smokers and current smokers, Patel et al. (2021) studied knowledge and beliefs around cigarette filters. The authors evaluated how these factors might inform support for policies aimed at reducing the environmental impact of discarded plastic filters.⁴⁰ Only about a quarter of the participants (28.9%) thought that cigarette filters contained plastic. Stratified by smoking status, 33.2% of smokers compared with 21.3% of non-smokers believed that filters reduce the harmful effects of smoking (p < 0.001). Epperson *et al* sought to assess knowledge, attitudes and beliefs about the environmental impact of filters among a sample of young adults.⁴⁵ Most respondents (89%) agreed that filters are harmful to the environment and not biodegradable, but only 43% knew that filters are made of plastic. Using data from a 2019 representative household survey of the German population aged 14 years and over, Kotz and Kastaun reported that the majority of both smokers and non-smokers did not know that cigarette filters were made of synthetic materials.⁴⁶

Based on the history and anatomy of the filter, it now seems appropriate to consider defining this additive differently. According to Google's Oxford Languages online dictionary (https://languages.oup.com/google-dictionary-en/), the definition of 'filter' is 'a porous device for removing impurities or solid particles from a liquid or gas passed through it'. Given this specification for how filters should function, it may be better to consider cigarette filters as product additives. It is clear that although filters may change the machine-smoked measures of nicotine and other toxic chemicals as well as reduce some of the particulates produced by combusted tobacco, they have not prevented the severe human harms due to smoking. If these additives had effectively functioned as 'filters' (ie, removing impurities or all solid particles from cigarette smoke), there would be evidence that the risks for

88

smoking-attributable diseases have declined since filtered cigarette smoking became normalised over the last 50 years. This is clearly not the case.⁴⁷ The filter ultimately has become nothing more than a fraudulent marketing tool, designed specifically to mislead smokers and young initiators that they are doing *something* to reduce their risks.²¹

CONCLUSION

The consensus among health scientists is that filtered cigarettes do not reduce the health risks of smoking and that they may damage ecosystems. The challenge now is to narrow the information gap among smokers, policy makers and regulatory bodies regarding the health and environmental harms of the cellulose filter. There is extensive misunderstanding about the potential value of filters, established through decades of fraudulent product marketing that implied that filters and other gimmicks reduced risks of smoking. Moreover, there is growing concern about the chemical and microplastic environmental contamination caused by trillions of filtered cigarettes discarded globally each year. Yet the global sale of filtered cigarettes continues without regulatory intervention.

In order to implement effective environmental and tobacco control policies regarding cellulose acetate filters, they should be included for regulatory consideration as part of the planned international plastics treaty. Information and advocacy materials should address misconceptions and misinformation about the composition and health risks of cigarette filters. Package warnings and point of sale messaging might be helpful in reducing these misconceptions, but upstream policy interventions to eliminate the cellulose acetate and other filters from the tobacco market will likely be more effective in reducing the adverse effects of these product additives. Ostensibly, regulatory agencies can eliminate the sale of filtered cigarettes altogether because of environmental concerns. This action should not raise concerns about product safety because filtered cigarettes do not reduce the harms of smoking.

More importantly, the cellulose acetate filter, attached to almost all globally sold commercial cigarettes, should be considered a health hazard and labelled as such. It encourages people to smoke, it deceives them into thinking a filtered cigarette is somehow safer than an unfiltered cigarette, it encourages young people to start smoking and it has led to an increased incidence of lung adenocarcinoma. Added to these concerns are the unmeasured long-term impacts of extensive environmental contamination due to discarded cigarette butts and other tobacco product waste. Increasingly, scientists concerned with the environmental impacts of discarded cellulose acetate filters are calling for a ban on these product additives.⁴⁸ There is no evidence-based health or environmental reason to allow cellulose acetate filtered cigarettes to be sold and misrepresented as beneficial to health.

Acknowledgements The authors are grateful to Liz Hendrix, MPP, and Rebecca Williams, DrPH, for their helpful review and comments.

Contributors TEN conceived the general subject matter for this Special Communication. LH conducted the initial research and drafting of the article. TEN edited, contributed additional material and finalised the submission.

Funding Funding for this work was provided by the California Tobacco Control Program of the California Department of Public Health under contract number 20-10206. TEN and LH also receive funds from the University of California Tobaccorelated Disease Research Program. TEN has received funding from WHO, the Truth Initiative and the US Food and Drug Administration (as a Westat subcontract).

Competing interests None declared.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

ORCID iD

Thomas E Novotny http://orcid.org/0000-0001-9235-0582

REFERENCES

- World no tobacco day 2022. n.d. Available: https://www.who.int/campaigns/worldno-tobacco-day/2022
- 2 Novotny TE, Bialous SA, Hill K, et al. Tobacco product waste in california: A white paper. California Tobacco Control Program, California Department of Public Health; 2022. Available: https://merg.sdsu.edu/tpwwp/
- 3 U.S. Department of Health and. National center for chronic disease prevention and health promotion, office on smoking and health. In: *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion.* 2006.
- 4 Protano C, Vitali M. The new danger of thirdhand smoke: why passive smoking does not stop at secondhand smoke. *Environ Health Perspect* 2011;119:A422:10...
- 5 Zafeiridou M, Hopkinson NS, Voulvoulis N. Cigarette smoking: an assessment of tobacco's global environmental footprint across its entire supply chain. *Environ Sci Technol* 2018;52:8087–94.
- 6 United States Federal Trade Commission. Federal trade commission cigarette report for 2020 and smokeless tobacco report for 2020. issued 2021. n.d. Available: https:// www.ftc.gov/reports/federal-trade-commission-cigarette-report-2020-smokelesstobacco-report-2020
- 7 Novotny TE, Slaughter E. Tobacco product waste: an environmental approach to reduce tobacco consumption. *Curr Environ Health Rep* 2014;1:208–16.
- 8 Ocean Conservancy. International coastal cleanup: 2020 report. n.d. Available: https://oceanconservancy.org/trash-free-seas/international-coastal-cleanup/annualdatarelease/
- 9 Global center for good governance in tobacco control. UN plastics treaty and negotiations. 2022. Available: https://files.ggtc.world/uploads/2022-12-19/15-37-15-693029/PT%20Negotiations_finalv6.pdf
- 10 Evans-Reeves K, Lauber K, Hiscock R. The "filter fraud" persists: the tobacco industry is still using filters to suggest lower health risks while destroying the environment. *Tob Control* 2022;31:e80–2.
- 11 Tobacco Asia. The history of filters. Lockwood Trade Journal Co., Inc; 2003. Available: https://web.archive.org/web/20030824115139/http://www.tobaccoasia.com/news. asp?id=534
- 12 Proctor RN. Golden holocaust: origins of the cigarette catastrophe and the case for abolition. Berkeley: University of California Press, 2011.
- 13 DOLL R. Etiology of lung cancer. Adv Cancer Res 1955;3:1-50.
- 14 United States Department of Health and Human Services. The health consequences of smoking: 50 years of progress. A report of the surgeon general. atlanta, GA: U.S. department of health and human services, centers for disease control and prevention. In: National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Printed with corrections, 2014.
- 15 Unknown. Report of progress technical research department 521224. brown & williamson records; minnesota documents; master settlement agreement. 1952. Available: https://www.industrydocuments.ucsf.edu/docs/ztlk0134
- 16 Rodgman A. The optimum composition of tobacco and its smoke. RJ reynolds records; minnesota documents; master settlement agreement. 1959. Available: https://www. industrydocuments.ucsf.edu/docs/mnfb0094
- 17 Philip Morris Incorporated. Tobacco and health R & D approach: presentation to R & D committee by dr. H. wakeham at meeting held in new york office on november 15, 1961. 1961 november 15. philip morris records; master settlement agreement. n.d. Available: https://www.industrydocuments.ucsf.edu/docs/yglf0164
- 18 O'Keefe AE. Selective filtration. 1958 september 16. philipmorris records; master settlement agreement. 1958. Available: https://www.industrydocuments.ucsf.edu/ docs/hhpb0122
- 19 Unknown. Action of cellulose filter-pads in cigarettes on the nicotine content of the smoke. american tobacco records; master settlement agreement. 1935. Available: https://www.industrydocuments.ucsf.edu/docs/xkbf0144
- 20 Wakeham H, Philip Morris Incorporated. Your memo of january 9, 1962 in re coughing by dual tareyton smokers. ness motley law firm documents. 1962. Available: https:// www.industrydocuments.ucsf.edu/docs/qgpb0040
- 21 Pauly JL, Mepani AB, Lesses JD, et al. Cigarettes with defective filters marketed for 40 years: what philip morris never told smokers. *Tob Control* 2002;11 Suppl 1(Suppl 1):151–61.

- 22 Chemical & Engineering News. Round, Firm, and Filtered. Philip morris records; maste settlement agreement. 1956. Available: https://www.industrydocuments.ucsf.edu/ docs/kjll0120
- 23 Royal College of Physicians of London. U.S exhibit 21,023, report, "Smoking and health. depositions and trial testimony (DATTA); RICO privilege downgrades collection. 1962. Available: https://www.industrydocuments.ucsf.edu/docs/hfwv0035
- 24 United States Public Health Service. Smoking and health: report of the advisory committee to the surgeon general of the public health service. Washington, DC: US Department of Health, Education, and Welfare; 1964. Available: https://profiles.nlm. nih.gov/101584932X202
- 25 Harris B. The intractable cigarette "filter problem." *Tob Control* 2011;20 Suppl 1(Suppl_1):i10–6.
- 26 Goel R, Bitzer ZT, Reilly SM, et al. Effect of charcoal in cigarette filters on free radicals in mainstream smoke. Chem Res Toxicol 2018;31:745–51.
- 27 Green DS, Tongue ADW, Boots B. The ecological impacts of discarded cigarette butts. *Trends Ecol Evol* 2022;37:183–92.
- 28 Moran K, Miller E, Mendez M, et al. A synthesis of microplastic sources and pathways to urban runoff. SFEI technical report: SFEI contribution # 1049. Richmond, CA: San Francisco Estuary Institute; 2021. Available: https://www.sfei.org/documents/ synthesis-microplastic-sources-and-pathways-urban-runoff
- 29 Belzagui F, Buscio V, Gutiérrez-Bouzán C, et al. Cigarette butts as a microfiber source with a microplastic level of concern. Sci Total Environ 2021;762:144165.
- 30 United States Environmental Protection Agency. What you should know about microfiber pollution. n.d. Available: https://www.epa.gov/sites/default/files/2020-07/ documents/article_2_microfibers.pdf
- 31 Prata JC. Microplastics in wastewater: state of the knowledge on sources, fate and solutions. *Mar Pollut Bull* 2018;129:262–5.
- 32 Wei H. Determination of organic compounds in smoked cigarette leachate and their bioaccumulation potentials in the marine mussel, mytilus galloprovincialis. Diego State University, San Diego, CA, San; 2018. Available: https://digitallibrary.sdsu.edu/ islandora/object/sdsu%3A22658
- 33 Yabes Y. Bioaccumulation of organic compounds from cigarette litter in the freshwater rainbow trout, oncoryhnchus mykiss. San Diego State University, San Diego, CA; 2018. Available: https://digitallibrary.sdsu.edu/islandora/object/sdsu% 3A24517
- 34 Xu EG, Richardot WH, Li S, et al. Assessing toxicity and in vitro bioactivity of smoked cigarette leachate using cell-based assays and chemical analysis. Chem Res Toxicol 2019;32:1670–9.
- 35 Novotny TE, Hardin SN, Hovda LR, *et al*. Tobacco and cigarette butt consumption in humans and animals. *Tob Control* 2011;20(Supplement 1):i17–20.
- 36 United States National Cancer Institute. Risks associated with smoking cigarettes with low machine-measured yields of tar and nicotine. *Tobacco Control Monograph*; Available: https://www.cancercontrol.cancer.gov/brp/tcrb/monographs/monograph-13
- 37 United States National Cancer Institute. The ftc cigarette test method for determining tar, nicotine, and carbon monoxide yields of u.s. cigarettes. report of the nci expert committee. *Tobacco Control Monograph*; Available: https://www.cancercontrol.cancer. gov/brp/tcrb/monographs/monograph-07
- 38 Song M-A, Benowitz NL, Berman M, et al. Cigarette filter ventilation and its relationship to increasing rates of lung adenocarcinoma. J Natl Cancer Inst 2017;109:djx075.
- 39 Thun MJ, Lopez AD, Hartge P. Smoking-related mortality in the united states. N Engl J Med 2013;368:1753.
- 40 Patel M, Cuccia AF, Folger S, et al. Support for cigarette filter waste policies among US adults. Tob Control 2021;32:118–20.
- 41 Tanner NT, Thomas NA, Ward R, et al. Association of cigarette type with lung cancer incidence and mortality: secondary analysis of the national lung screening trial. JAMA Intern Med 2019;179:1710–2.
- 42 Team NLSTR, Aberle DR, Berg CD. The National lung screening trial: overview and study design. *Radiology* 2011;258:243–53.
- 43 Oren E, Pulvers K, Romero DR, *et al*. Effects of unfiltered cigarettes on smoking behavior and toxicant exposure: protocol for a randomized crossover clinical trial. *JMIR Res Protoc* 2020;9:e19603.
- 44 Pulvers K, Tracy L, Novotny TE, et al. Switching people who smoke to unfiltered cigarettes: perceptions, addiction and behavioural effects in a cross-over randomised controlled trial. *Tob Control* 2023;32:520–3.
- 45 Epperson AE, Novotny TE, Halpern-Felsher B. Perceptions about the impact of cigarette filters on the environment and smoking-related behaviors. J Adolesc Health 2020;68:823–6.
- 46 Kotz D, Kastaun S. Do people know that cigarette filters are mainly composed of synthetic material? A representative survey of the German population (the DEBRA study). Tob Control 2021;30:345–7.
- 47 Stratton K, Shetty P, Wallace R, et al., eds. Eds. clearing the smoke: assessing the science base for tobacco harm reduction. In: *Institute of Medicine (US) Committee* to Assess the Science Base for Tobacco Harm Reduction. Washington (DC): National Academies Press (US), 2001.
- 48 Green DS, Almroth BC, Altman R, *et al.* Time to kick the butt of the most common litter item in the world: ban cigarette filters. *Sci Total Environ* 2023;865:161256.

Item 9 B.

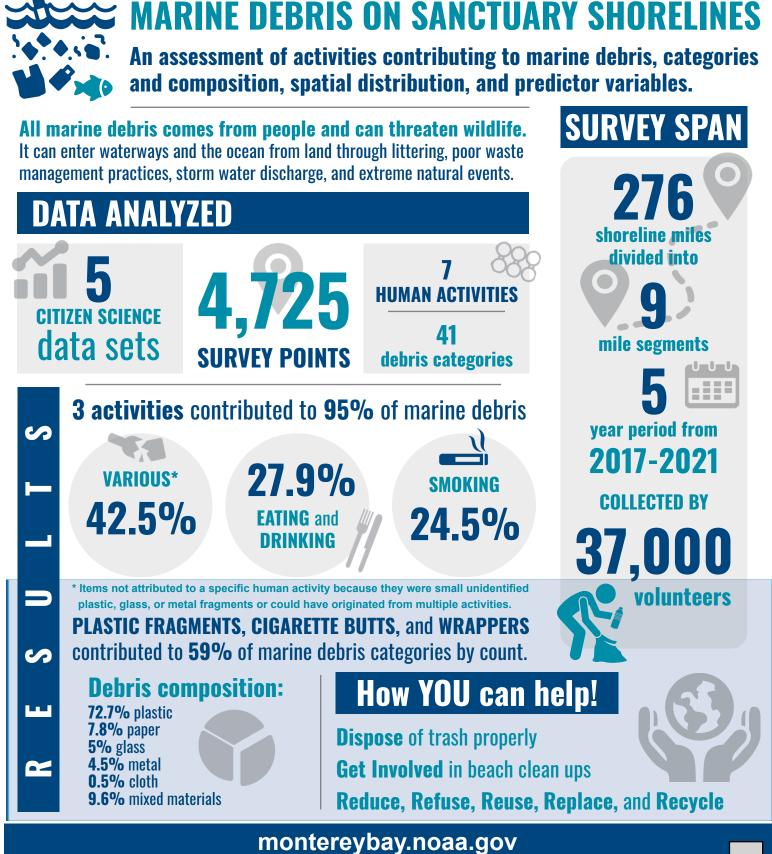
Special communication

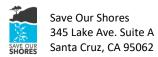
- 49 Quéméneur M, Chifflet S, Akrout F, et al. Impact of cigarette butts on microbial diversity and dissolved trace metals in coastal marine sediment. Estuar Coast Shelf Sci 2020;240:106785.
- 50 Green DS, Kregting L, Boots B. Effects of cigarette butts on marine keystone species (ulva lactuca L. and mytilus edulis L.) and sediment microphytobenthos. *Mar Pollut Bull* 2021;165:112152.
- 51 Wright SL, Rowe D, Reid MJ, et al. Bioaccumulation and biological effects of cigarette litter in marine worms. Sci Rep 2015;5:14119.
- 52 Green DS, Kregting L, Boots B. Smoked cigarette butt leachate impacts survival and behaviour of freshwater invertebrates. *Environ Pollut* 2020;266(Pt 3):115286.
- 53 Slaughter E, Gersberg RM, Watanabe K, et al. Toxicity of cigarette butts, and their chemical components, to marine and freshwater fish [published correction appears in tob control. Tob Control 2011(Suppl_1):i25–9.
- 54 Lee W, Lee CC. Developmental toxicity of cigarette butts an underdeveloped issue. *Ecotoxicol Environ Saf* 2015;113:362–8.
- 55 Lawal M, Ologundudu SO. Toxicity of cigarette filter leachates on hymenochirus curtipes and clarias gariepinus in nigeria. *J Environ Ext* 2013;11:7–14.
- 56 Green DS, Boots B, Da Silva Carvalho J, *et al*. Cigarette butts have adverse effects on initial growth of perennial ryegrass (gramineae: lolium perenne l.) and white clover (leguminosae: trifolium repens l.). *Ecotoxicol Environ Saf* 2019;182:109418.
- 57 Suárez-Rodríguez M, Macías Garcia C. There is no such a thing as a free cigarette; lining nests with discarded butts brings short-term benefits, but causes toxic damage. *J Evol Biol* 2014;27:2719–26.

90

MONTEREY BAY NATIONAL MARINE SANCTUARY



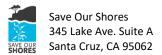






Capitola Beach Cleanups Fiscal Year 2023-2024

Prepared by: Save Our Shores Prepared for: City of Capitola Attn: Erika Senyk



May 23rd, 2024

Overview

In 2023 Save Our Shores (SOS) and the City of Capitola partnered to host quarterly public cleanup events at Capitola Beach throughout the 2023-2024 fiscal year. The four beach cleanup events recruited **176 community volunteers** who participated to aid in debris removal and the collection of community science data by recording the types and quantity of trash items collected. In total, we removed and prevented **656.5 pounds** of debris from littering Capitola Beach and entering the Monterey Bay National Marine Sanctuary.

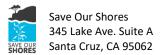


Event Details

Save Our Shores is the Monterey Bay regional leader in coordinating and hosting highly successful and impactful community beach cleanup events. Our team consists of experts in beach cleanup and safety protocols, data collection, and knowledge of the sites in need of cleanup around the bay. Our history, expertise, and operating procedures allow us to successfully engage diverse members of the public in stewardship of clean shores and healthy marine ecosystems of the Monterey Bay.

Save Our Shores hosted one beach cleanup per quarter at Capitola Beach during the fiscal year. Cleanups were prioritized to take place on weekends to recruit the most volunteers and engage with higher numbers of beach visitors. At each event, Save Our Shores staff and volunteers collected debris and recorded community science data on the types and quantities of litter found using the Save Our Shores Marine Tally mobile app or SOS paper data cards. The SOS cleanup leader began each event by delivering a welcome and safety talk to introduced participants to the concept of marine debris and its impact on the Monterey Bay National Marine Sanctuary, discuss the land to sea connection (watersheds), and marine debris prevention techniques. Participants received important safety information and instructions for proper data collection before cleanup activities commenced. Volunteers then proceeded to clean the beach for the duration of the event and return with the items and data they collected. At the end of the event, the cleanup leader hosted a debrief to discuss the categories of items collected and brainstorm techniques for litter prevention. Finally, the cleanup leader sorted, weighed, and disposed of all debris collected.

Outreach and volunteer recruitment for all cleanup events was conducted via the Save Our Shores website events calendar, SOS supporter monthly e-newsletters, paid advertisements in the Good Times, promotional flyers for City of Capitola newsletter distribution, and SOS social media posts and stories. Advanced volunteer registration for all events was required. The publicized event description and registration confirmation emails detailed how volunteers can prepare to participate and informed them of the meeting location, accessibility, and services available at the cleanup site.



Beach cleanup events serve as an excellent outreach and recruitment tool for cleanup and coastal stewardship activities in our communities. Visitors to the beach frequently participate unplanned and many mentioned how convenient it was that we were set up at the entrance with all the supplies available for people to use. These actions demonstrated the power of community engagement, and how conducting these events can attract attention and inspire action in the present and for future events. This incidental outreach paired with the direct messaging delivered to cleanup volunteers ensures that these events are meaningful and potentially transformative to both participants and observers.

Event Metrics & Cleanup Data

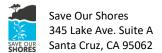
The data collected from these events follow the historic trends we see across all sites around Monterey Bay. The data continues to highlight a need to shift away from single-use plastic, disposable packaging in the food and beverage industry by prioritizing refill stations, incentivizing the use of reusable food ware, and developing sustainable packaging solutions.

Data was entered into the Save Our Shores debris database and analyzed to determine the most common trash items and identify items of concern. The data indicates that 4 of the top 5 items collected during these cleanups consisted of plastic materials. The top 5 items collected were: paper pieces (949), plastic pieces (912), plastic food wrappers (546), cigarette butts (430), polystyrene pieces (422).

Across all 4 cleanup events a total of 4,483 individual pieces of trash were removed from the environment. The results of our project suggest the continued need for beach cleanups to remove litter and prevent land-based trash from becoming harmful marine debris.

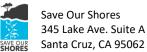
#	Event Date	# of Adults	# of Youth	Pounds of Trash	Pounds of Recycling
Totals		114	62	648	8.5
1	8/19/2023	14	2	26	0
2	11/12/2023	25	19	57	0.5
3	3/16/2024	36	20	173	7
4	5/11/2024	39	21	392	1

Table 1: Cleanup event metrics including number of volunteers (adults/youth) and pounds of debris collected (trash/recycling).



Date of Cleanup	8/19/2023	11/12/2023	3/16/2024	5/11/2024	TOTALS					
Common Items										
Cigarette Butts	18	224	28	160	430					
Plastic Pieces	122	316	228	246	912					
Plastic Food Wrappers	52	180	137	177	546					
Polystyrene Pieces (foam)	21	270	43	88	422					
Plastic To-Go Items	13	75	57	58	203					
Paper Pieces	67	550	177	155	949					
Plastic Items										
Shopping bags	7	5	2	4	18					
Balloons	2	2	3	2	9					
Plastic Bottles	7	8	23	9	47					
Bottle Caps and Rings	11	33	3	8	55					
Polystyrene Foodware										
(foam)	3	26	1	1	31					
Straws and stirrers	3	35	14	11	63					
Toys and Beach Accessories	2	16	12	0	30					
	•	Glass Items								
Glass Bottles	5	4	8	11	28					
Pieces and Chunks	3	28	63	23	117					
	•	Paper Items	· · · · · · · · · · · · · · · · · · ·							
Cardboard	0	24	1	5	30					
Food containers, cups,										
plates, bowls	18	9	7	10	44					
	•	Metal Items	· · · · · · · · · · · · · · · · · · ·							
Beer Cans	15	6	11	8	40					
Soda Cans	2	1	24	4	31					
Bottle Caps	3	15	14	13	45					
	H	lazardous Item	s	·						
Band aids	1	4	2	4	11					
Batteries	0	3	0	0	3					
Personal Hygiene	0	8	3	9	20					
Disposable lighters	0	0	0	0	0					
Syringes or needles 0		0	0	1	1					
Vape items/ E-smoking				 						
devices	0	0	0	0	0					
Smoking, tobacco (not e-										
waste or butts)	0	24	4	0	28					
Bagged Pet Waste	0	0	3	2	5					

Table 2: Itemized cleanup data collected per event and the totals across all cleanup events.



SHORES Salita Ciuz, CA 95062					
Personal Protective Equipment (masks, gloves)	0	0	5	2	7
	Ot	ther Items/Mis	с.		
Wood pallets, pieces, and processed wood	1	40	19	47	107
Fishing gear (lures, nets,					
etc.)	0	4	8	8	20
Clothes, cloth	0	28	24	14	66
Other, large	0	1	2	2	5
Other, small	5	17	75	63	160

Appendix

Figure 1: Example of promotional flyer created for City of Capitola newsletter distribution.



Figure 2: Example of paid event advertisement placed in the Good Times.



Active Cigarette Tobacco Retailers within the City of Capitola

License	Customer Legal Name	Site DBA Name	Street	City	State	Zip	Site City Code	License Start
091306811	BEVERAGES & MORE, INC	BEVERAGES & MORE #118	1820 41ST AVE STE A	CAPITOLA	CA	95010-2516	44053	9/12/2008
091235499	HOUTAN PETROLEUM, INC	CAPITOLA COAST	2178 41ST AVE	CAPITOLA	CA	95010-2009	44053	6/30/2004
091228167	VERUTTI INC.	VERUTTI LIQUORS 41ST AVE	1125 41ST AVE	CAPITOLA	CA	95010-3905	44053	6/30/2004
091382939	JCD INVESTMENT INC	GRADYS MARKET	509 BAY AVE	CAPITOLA	CA	95010-3304	44053	12/16/2016
091314209	PENINSULA PETROLEUM LLC	CAPITOLA SHELL	1649 41ST AVE	CAPITOLA	CA	95010-2916	44053	5/22/2009
226011264	GAWFCO ENTERPRISES, INC	CAPITOLA UNION 76	2195 41ST AVE	CAPITOLA	CA	95010-2041	44053	11/15/2019
091265888	AJ'S FUEL MARKET OF CAPITOLA, INC	AJ'S FUEL MARKET OF CAPITOLA	836 BAY AVE	CAPITOLA	CA	95010-2143	44053	5/16/2005
234503424	41ST LIQUOR & MARKET INC	41ST LIQUOR & MARKET	2155 41ST AVE	CAPITOLA	CA	95010-2041	44053	6/21/2019
234869440	QUALITY MARKET & LIQUOR INC.	QUALITY MARKET & LIQUOR, INC.	300 CAPITOLA AVE	CAPITOLA	CA	95010-3278	44053	9/23/2021
091260358	CHEVRON STATIONS INC	CHEVRON #1707	1650 41ST AVE	CAPITOLA	CA	95010-2917	44053	12/15/2004



Filtered Tobacco Products City Council April 10, 2025



Regional Policy Efforts

<u>May 2023</u>

Santa Cruz County Board of Supervisors formed the Tobacco Waste Ad Hoc Subcommittee to develop consistent regional policy

Capitola Representation

Council Member Pedersen participated on Subcommittee; requested agenda item to consider of adopting an ordinance





Capitola Regulations





Municipal Code Chapter 8.38

Prohibits smoking in enclosed indoor public places and specific outdoor public places, such as Capitola Beach, the Esplanade, and designated parks, among others.

Municipal Code Chapter 5.38

Prohibits the sale of flavored tobacco products by tobacco retailers.

Resolution No. 4339

Adopted October 12, 2023. Identifies tobacco waste as a threat to public health and the environment.

SC Board Bans Sale of Filtered Tobacco Products

County Ordinance No. 5461

Adopted October 29, 2024. Prohibits sale of filtered tobacco products in unincorporated areas of the County.

Enforcement begins on January 1, 2027, or on a date that at least two additional jurisdictions in the County approve a similar ordinance, whichever occurs later. Item 9 B



Commission on the Environment





March 19, 2025 COE Meeting

Capitola COE received a presentation from the Public Health Division of the Santa Cruz Health Services Agency.

COE unanimously voted to recommend that Capitola City Council adopt a similar ordinance, prohibiting the sale of filtered tobacco products within the City of Capitola.

Guest Speakers



Tara Leonard, MPH Senior Health Educator Tobacco Education and Prevention Public Health Division Santa Cruz County Health Services Agency





Health Services Agency Public Health Division





Tara Leonard, MPH

Project Director, Tobacco Education and Prevention

Capitola City Council April 10, 2025

The most littered item on the planet

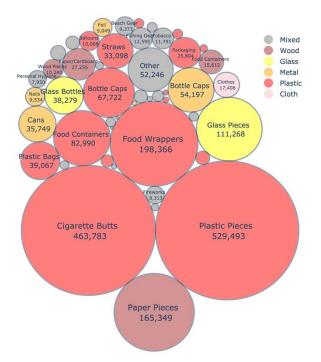


4.5 trillion cigarette butts worldwide 4,500,000,000

Item 9 B.

And on local beaches and riverways

In ten years, Save Our Shores volunteers have collected almost half a million cigarette butts during local cleanup events.



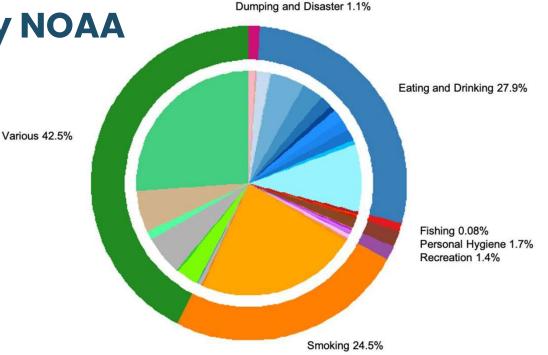
Capitola beach cleanups

Since 2023, Save Our Shores has conducted quarterly cleanup events at Capitola Beach. Cigarettes butts are among the top five items collected.

ltem	8/19/23	11/12/23	3/16/24	5/11/24	8/24/24	9/21/24	11/9/24	1/18/25	3/15/25	TOTALS
Plastic Pieces	122	316	228	246	315	59	393	317	329	2325
Paper Pieces	67	550	177	155	149	0	447	214	94	1853
Plastic Food Wrappers	52	180	137	177	96	68	163	117	286	1276
Polystyrene Pieces	21	270	43	88	44	88	43	159	341	1097
Cigarette Butts	18	224	28	160	78	19	219	87	113	946

Data supported by NOAA research

24.5% of all litter collected on the shores of the Monterey Bay National Marine Sanctuary between 2017 and 2021 was attributed to smoking.



Marine debris on the shoreline of Monterey Bay National Marine Sanctuary: An assessment of activities contributing to marine debris, categories and composition, spatial distribution, and predictor variables, National Oceanic and Atmospheric Administration, 2023

Remnants of a deadly, addictive product

Deaths in California from Smoking			
Adults who die each year from their own smoking	40,000		
Kids now under 18 and alive in California who will ultimately die prematurely from smoking	441,000		

Smoking kills more people than alcohol, AIDS, car crashes, illegal drugs, murders, and suicides combined – and thousands more die from other tobacco-related causes – such as fires caused by smoking (more than 1,000 deaths/year nationwide) and smokeless tobacco use.

Tobacco products kill 500,000 people in the United States every year, including 40,000 Californians.

https://www.tobaccofreekids.org/problem/toll-us/california

Filters are microfiber pollution

One cigarette butt contains over 12,000 microfibers comprised of cellulose acetate with a suite of chemical additives and "plasticizers."

Cigarette filters release about 0.3 million tons of microfibers into the aquatic environment per year.



NOAA Interagency Marine Debris Coordinating Committee (IMDCC). (2024). Report on Microfiber Pollution. 149 pp. https://marinedebris.noaa.gov/interagency-marine-debris-coordinatingcommittee-reports/report-microfiber-pollution

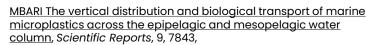
Found throughout the water column

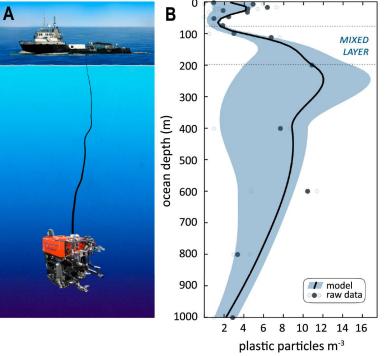
Cigarette butt microfibers break down into microplastics. According to MBARI, microplastics are now found in all layers of the Monterey Bay water column.

Microplastics are present in the seafood we eat, with potential risks to human health.

"Ingestion of food and water contaminated with microplastics is the main route of human exposure."

Alberghini L, Truant A, Santonicola S, Colavita G, Giaccone V. Microplastics in Fish and Fishery Products and Risks for Human Health: A Review. Int J Environ Res Public Health. 2022 Dec 31;20(1):789. doi: 10.3390/ijerph20010789. PMID: 36613111; PMCID: PMC9819327.





Toxic to plants, animals and marine life



photo credit: Karen Mason

Slaughter et al: Toxicity of Cigarette Butts and their Chemical Components to Marine and Freshwater Fish, 2011

Global impacts across the supply chain

One cigarette:

- Water footprint of 3.7 liters
- Fossil fuel depletion of 3.5g of oil
- Climate change impact of 14g of CO2 emissions

Six trillion cigarettes are produced annually.

According to WHO, "Tobacco companies are a top global plastic polluter whose production and manufacturing directly contribute to climate change and deforestation."



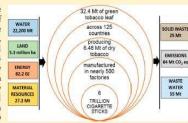
Cigarette Smoking: An Assessment of Tobacco's Global Environmental Footprint Across Its Entire Supply Chain

Maria Zafeiridou,[†] Nicholas S Hopkinson,[‡] and Nikolaos Voulvoulis*[†]

[†]Centre for Environmental Policy, Imperial College London, London, SW7 1NA, England
[‡]National Heart and Lung Institute, Royal Brompton Hospital Campus, Fulham Road, London SW3 6NP, England

G Supporting Information

ABSTRACT: While the health effects of cigarette smoking are well recognized and documented, the environmental impacts of tobacco are less appreciated and often overlooked. Here, we evaluate tobacco's global footprint across its entire supply chain, looking at resource needs, waste, and emissions of the full cradie-to-grave life cycle of cigarettes. The cultivation of 32.4 Mt of green tobacco used for the production of 6.48 Mt of dry tobacco in the six trillion cigarettes manufactured worldwide in 2014, were shown to contribute almost 84 Mt CO₂ equiv emissions to climate change—approximately 0.2% of the global total, 490 000 tonnes 1,4-dichlorobenzene equiv to ecosystem ecotoxicity levels, and over 22 billion m³ and 21 Mt oil equiv to water and fossil fuel depletion, respectively. A typical cigarette



was shown to have a water footprint of 3.7 L_{s} a climate change contribution of 14 g CO₂ equiv, and a fossil fuel depletion contribution of 3.5 g oil equiv. Tobacco competes with essential commodities for resources and places significant pressures on the health of our planet and its most vulnerable inhabitants. Increased awareness, as well as better monitoring and assessment of the environmental issues associated with tobacco, should support the current efforts to reduce global tobacco use as an important element of sustainable development.

World Health Organization. Tobacco and its environmental impact: an overview. Geneva: World Health Organization; 2017

Filters don't even work

According to the World Health Organization cigarette filters have "no benefit in preventing the adverse health effects of smoking."

According to a 1958 internal memo, Philip Morris scientists recognized that "selective filtration of harmful compounds in cigarette smoke was…a thermodynamic impossibility."



Tobacco Product Waste in California: A White Paper. California Department of Public Health, February, 2022.

O'Keefe AE. Selective filtration. September 16, 1958. Philip Morris records; Master Settlement Agreement. Available: https://www.industrydocuments.ucsf.edu/ docs/hhpb0122

Big Tobacco takes no responsibility



The tobacco industry externalizes their costs, forcing the physical and financial burden of tobacco waste onto government agencies and volunteer organizations.

Significant financial burden

The Center for Tobacco and the Environment at San Diego State University has created a model that communities can use with local data to estimate how much tobacco waste costs their area.

Example: Proportional Estimation, California Cities

Large California Cities (2020 IJERPH paper)

- Proportional estimation approach using commonly available data from largest U.S. cities
- Estimate cost of TPW based fixed 25% parameter
- LA: \$19,703,611
- San Diego: \$7,066,021
 - San Jose: \$3,908,981
 - San Fran: \$4,195,867

Santa Cruz

- Santa Cruz provided data on costs of all litter mitigation
- Estimate cost of TPW based fixed 25.3% parameter (average of 3 studies)
- Result: \$2,067,654

https://cte-dev.sdsu.edu/tobacco-product-waste-economic-model/

Current efforts rely on "downstream" solutions

- Garbage cans
- No smoking signs
- Education campaigns
- Litter enforcement

Focus on Individual Behavior Change

Instead of Policy and Systems Change



Current Capitola tobacco ordinances

8.38 Smoking Regulations

Where smoking is prohibited in indoor and outdoor public places.

Smoking is prohibited in specifically delineated outdoor public spaces including:

- Capitola Beach
- Any portion of the Esplanade rightof-way
- Capitola Wharf
- Many other outdoor locations including specific roads, parks, and properties

5.38 Tobacco Retail License

Where, how, and which tobacco products can be sold.

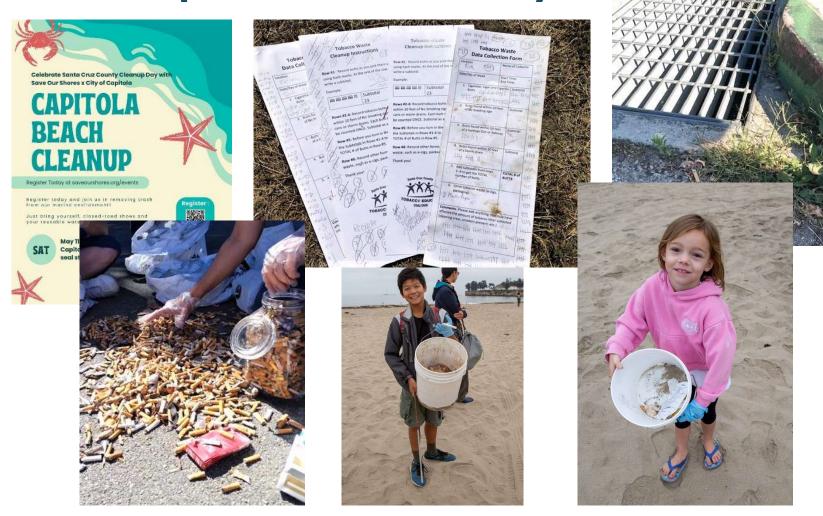
- Retail application process
- Product definitions
- Limitations on products sold
- Fees and penalties
- Enforcement

TPW education started in 2017

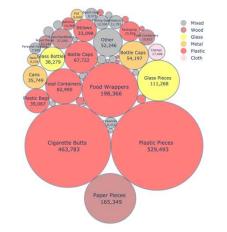


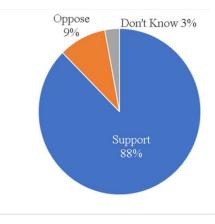


Cleanups across the county



A data- and science-driven approach





Tobacco Control Visit this Journal BMJ

► Tob Control. 2002 Mar;11(Suppl 1):i40–i50. doi: <u>10.1136/tc.11.suppl 1.i40</u>

Cigarette filter ventilation is a defective design because of misleading taste, bigger puffs, and blocked vents

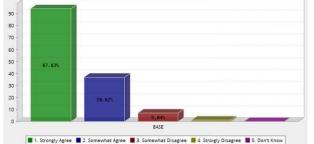
L Kozlowski, R O'Connor

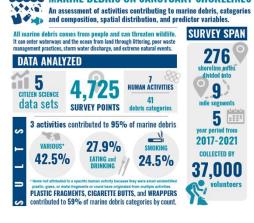


MARINE DEBRIS ON SANCTUARY SHORELINES

Q2. Cigarette butts and other tobacco litter are a problem in your community.







Public policy meetings early and often



Tobacco product waste (TPW) resolutions

By 2024 all five county jurisdictions passed resolutions recognizing tobacco waste as a public health and environmental threat:

- City of Santa Cruz, 2021
- City of Watsonville, 2021
- County of Santa Cruz, 2023
- City of Capitola, 2023
- City of Scotts Valley, 2024



The Board of Supervisors' resolution





Serving the Community | Working for the Future

Passed on May 16, 2023 the BOS resolution:

- Created a TPW ad hoc committee to study policy options
- Specified a deadline of January 2025 for returning to the Board with a policy recommendation
- 3. Committed to contacting the other four jurisdictions urging collaborative action

Ad hoc committee 5/23 to 10/24

- Engaged community leaders, non-profit partners, youth, environmental advocates, and members of the public
- Held education and outreach events including a meeting with County tobacco retailers
- Assessed the latest data on tobacco waste and its environmental and health impacts
- Evaluated a variety of policy approaches
- Worked with County Counsel to develop policy language









Policy evaluation process

Policy Options

- Prohibit the sale of all tobacco products
- Prohibit the sale of single-use tobacco products
- Prohibit the sale of cigarettes and cigars with an embedded single-use filter
- Prohibit the sale of electronic smoking devices (e-cigs)
- Prohibit the sale of single-use e-cigs
- Prohibit the sale of other plastic tobacco products (lighters, packaging)
- Require hazardous waste tracking and handling
- Retailer density restrictions
- TPW mitigation fees
- Deposit/return programs (EPR)

Evaluation Criteria

- Impact on litter reduction
- Ability to enforce
- Public support
- Impact on tobacco retailers
- Impact on jurisdiction
- Impact on current tobacco users
- Likelihood of tobacco industry pushback
- Legal precedence
- Impact on public health
- Focus of responsibility
- Others

The County's product definition language

Partially Inconsumable Cigarette/Cigar

Any cigarette/cigar containing an embedded component or part commonly referred to or marketed as a filter that is not intended to be consumed, whether it is made of any material including, but not limited to, plastic, cellulose acetate, other fibrous plastic material, or any other inorganic, organic, or biodegradable material.

- Only embedded filters
- Broad filter material language limits an unreliable industry's ability to skirt regulation

Impact on County sales tax revenue

According to the County Administrative Office, the 2019 flavored tobacco sales ban led to a 3.1% decline in sales tax revenue over the initial six months, followed by **double-digit increases** as consumer behavior adjusted.

The County has 76 tobacco retailers.

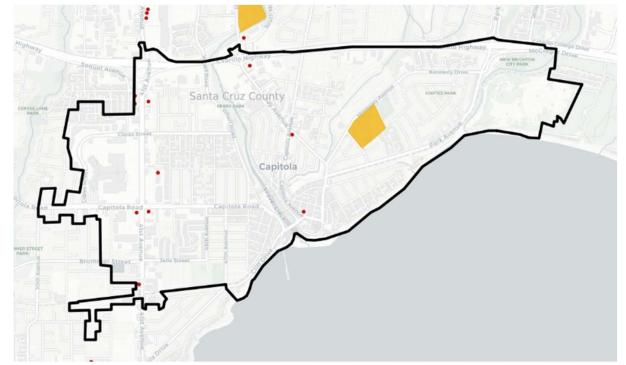
Tobacco Products... ---- 4YR Avg \$60,000 \$50,000 Flavor Ban: \$40,000 \$30,000 \$20,000 24 2019 \$10,000 \$0 2019Q3 2019Q2 2019Q1 2018Q4 2018Q3 2018Q3 2018Q1 2018Q1 2017Q4 2017Q1 2016Q4 2016Q3 2016Q3 2016Q1 2016Q1 2015Q3 2015Q3 2022Q1 2021Q4 2021Q3 2021Q2 2021Q1 2022Q1 2020Q4 2020Q3 2020Q2 202001 202203 20220 2023Q 023Q4

Estimated County Unincorporated Sales Tax Revenue

Capitola tobacco retailers

Capitola has ten tobacco retailers.

- Beverages and More
- Capitola Coast
- Verutti Liquors
- Grady's Market
- Capitola Shell
- Capitola Union 76
- AJ's Fuel
- 41st Liquor & Market
- Quality Market & Liquor
- Chevron



Cigarette use is trending down

According to the 2022 California Health Interview Survey, 6% of adults use cigarettes.

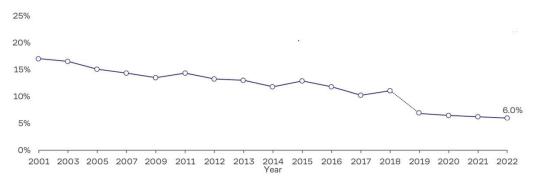
According to the 2024 California Youth Tobacco Survey 1.3% of high school students report using cigarettes in the last 30 days.

Tobacco Product Use

Adult Tobacco Product Use

Fewer adults are smoking cigarettes than ever before. In 2022, 6.0% (1.8 million) of California adults reported current cigarette smoking. Current tobacco use in this report is the use of any tobacco product in the past 30 days.

Figure 1. Current cigarette smoking among adults aged ≥18 years—California Health Interview Survey, 2001 to 2022



The dotted lines indicate a break in trend due to a methodology change. Prior to 2019, the survey was administered via computer-assisted telephone interview. Since 2019, the survey was administered via computer-assisted web interview and computer-assisted telephone interview. This methodology change significantly impacted cigarette smoking rates. Current vape use was first collected of all adults in 2017. See <u>Additional Notes</u> section for more information.

Source: California Health Interview Survey. CHIS 2001 to CHIS 2022 Adult Files. Los Angeles, CA: UCLA Center for Health Policy Research; October 2023.

Won't smokers get these products online?

NO. Assembly Bill 3218 went into effect on January 1, 2025.

Any provisions in a local tobacco retail licensing ordinance will automatically apply <u>with equal force to online and</u> <u>delivery sales</u>.



132

Item 9 B.

Broad community support

- Breathe California
- The Cigarette Surfboard
- Fishwise
- Monterey Bay National Marine Sanctuary Foundation & Advisory Council
- Ocean Conservancy
 - MONTEREY BAY NATIONAL MARINE SANCTUARY

SFISHWISE

- Pajaro Valley Prevention and Student Assistance
- Santa Cruz County Tobacco Education Coalition
- Save Our Shores
- Save the Waves
- Surfrider
- Trash Talkers
- And many more...



SAVE OUR



santa Cruz County

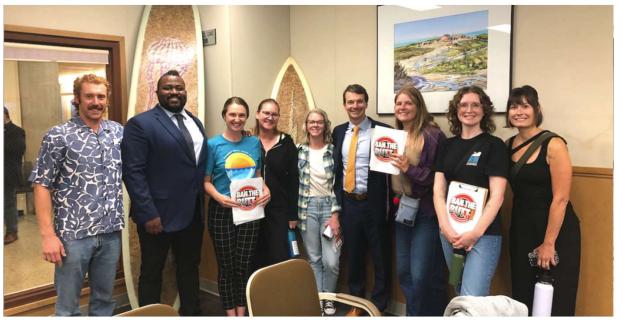
TOBACC® EDUCAT





Policy success!

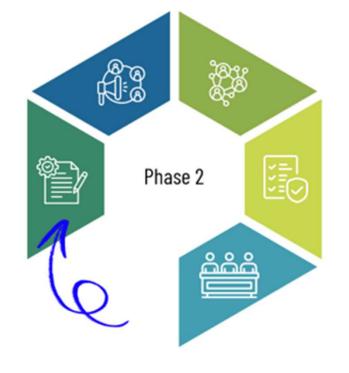
On October 8, 2024, the Santa Cruz County Board of Supervisors voted unanimously to ban the sale of filtered tobacco products.



"Enforcement...shall begin on January 1, 2027 or on a date that two additional jurisdictions in the County approve a similar ordinance, whichever date is later."

The City of Santa Cruz

The City of Santa Cruz is approaching this issue through its Health in All Policies (HiAP) subcommittee. In April, they will host a tobacco retailers' meeting. The item is tentatively agendized for the full council on June 10.



Staff Recommendation



Provide direction to staff on whether to prepare a draft ordinance on the prohibition on the sale of filtered tobacco products for City Council consideration.



Questions? Thank You





Capitola City Council Agenda Report

Meeting: April 10, 2025

From: City Manager/Police Department

Subject: E-Bike Safety



<u>Recommended Action</u>: Receive report regarding existing City e-bike safety initiatives and direct the Mayor to sign a letter regarding proposed State legislation for e-bike safety to Representatives Dawn Addis, Gail Pellerin, and Senator John Laird.

<u>Background</u>: The use of electric bikes (e-bikes) has increased significantly in recent years. This trend has a number of positive community benefits, including:

- Environmental benefits: e-bikes are a lower environmental impact alternative to cars, significantly reducing greenhouse gas emissions and air pollution. They contribute to cleaner urban environments and help combat climate change.
- Health and fitness: Riding an e-bike promotes physical activity while allowing riders to adjust the level of assistance based on their fitness or terrain, making cycling accessible to a broader range of people, including those with limited mobility or endurance.
- Cost-effective and efficient transportation: e-bikes are a cost-effective mode of transportation, with lower operating and maintenance costs compared to cars. They also help reduce traffic congestion and provide a faster, more flexible way to navigate urban areas.

However, the use of e-bikes has created some issues in the community. In particular, some e-bike users are not familiar with the "rules of the road." This unfamiliarity can create hazards for other uses, particularly when e-bikes fail to stop at stop signs, ride on sidewalks, travel on the wrong side of the road, or operate with more passengers than the e-bike is designed to allow.

Under California law, e-bikes are limited to motors of 750 watts or less and are divided into three different categories, or Classes, as follows:

Class 1 = Pedal assist to up to a maximum of 20 mph

Class 2 = Throttle and pedal assist to up to a maximum of 20 mph

Class 3 = Throttle up to 20 mph. Pedal assist up to a maximum of 28 mph. Must be 16 years of age or older.

<u>Discussion</u>: The City has launched several local initiatives to enhance e-bike safety. These include raising awareness through education, hosting community events, leveraging social media campaigns, partnering with local businesses, and enforcing existing safety regulations.

Education: The Capitola Police Department's Traffic Unit presents annually to New Brighton Middle School students about e-bike safety. The workshop is interactive and involves students by informing riders of the rules of the road, proper e-bike handling, safe riding habits, and helmet use.

Community Events: The Police Department has partnered with the California Highway Patrol organizing "bike rodeos" at the Capitola Mall to encourage youth engagement with local law enforcement and to distribute safety equipment and information. The events provide an good opportunity for education and outreach, promoting safe biking habits and vehicle code awareness within the community.

Public Awareness through Social Media: Social media has been an excellent tools to disseminate messages to the broader community. The Police Department posts several times a year to remind e-bikers about safety and being responsible riders.

Collaboration with Local Businesses: The City has implemented a "Capitola Star Card" program giving youth a punch card sponsored by Capitola Village businesses to provide treats when young e-bikers are being exemplary community ambassadors.

Enforcement: While education, incentives, and outreach are important components of ensuring public safety, enforcement is another tool to help ensure traffic safety rules are being followed. On an annual basis, at the start of the school year, the Traffic Safety Division conducts concentrated high visibility activity around e-bike safety near New Brighton Middle School. Typically, Police Officers will issue warnings during the initial phase of the annual enforcement cycle, followed by issuing citations and/or confiscating e-bikes when necessary. Officers often work directly with parents or guardians of the youth who are in possession of e-bikes with egregious violations.

Data regarding historic levels of e-bike-related accidents is not currently available, however, starting in 2024 the Department began using a specific code to flag all e-bike-involved accidents. Moving forward we will be able to track accidents to monitor the effectiveness of various programs.

Earlier this year, Capitola PD created a special two-week operation regarding youth and e-bike use. Police Officers were strategically present at the time school let out, to make contact with young riders. During those two weeks, the Police Department issued 13 warnings and 13 citations. The citations were for violations such as no helmet, unsafe turns, stop sign violations, cell phone use, and failure to obey traffic signs and signals. Warnings were given for minor traffic infractions, including riding on the sidewalk. Officers noted that the majority of juveniles observed were wearing helmets and following the vehicle code.

The Police Department also actively enforces the use illegal electric motorcycles, such as Talarias and Surrons. Two Talarias were impounded in March as part of this effort.

<u>Legislation</u>: While the City enforces existing regulations, at times it appears that regulations have not kept up with e-bike technology and actual usage patterns. Adopting Capitola-specific regulations would pose numerous challenges, most significantly that the City is only two square miles. Creating a unique regulatory scheme for such a small City would be very difficult to enforce and confusing to the public. As a result, staff is proposing the City send a letter to elected officials in Sacramento with conceptual new regulations the City could support to promote e-bike safety.

- 1. Establish a minimum age of 14 for Class 2 e-bikes: Class 2 bikes have a throttle and require no user pedaling input. Based on observations of rider behavior, the availability of a throttle on the Class 2 e-bikes can lead to less rider engagement and greater overall risk. Currently, there is no minimum age to ride a Class 2 e-bike. The minimum age to ride a Class 3 e-bike (assist up to 28 mph) is 16.
- Establish a written test/permit administered by the DMV for users less than 16 years old to use Class 2 e-bikes: Currently, there is no test or permit required for use of an e-bike for any age/person.
- 3. Require traffic safety education as essential core curriculum for schools: In some other countries traffic safety education is integrated into school curriculum and community practices. In the US, drivers education is the only required traffic training and it's for people to drive a car, but comprehensive education on how to be a pedestrian, a bike rider, a transit user, etc. are relegated to elective educational opportunities.

Fiscal Impact: Cost for current e-bike safety initiatives are included in the adopted FY 2024-25 Budget

Attachments:

1. Draft letter regarding proposed legislation

<u>Report Prepared By</u>: Jamie Goldstein, City Manager; Sarah Ryan, Chief of Police <u>Reviewed By</u>: Julia Gautho, City Clerk <u>Approved By</u>: Jamie Goldstein, City Manager



420 Capitola A Capitola, California 95010 Telephone: (831) 475-7300 FAX: (831) 479-8879 Website: <u>http://www.cityofcapitola.org</u>

ADDRESS

April 10, 2025

SUBJECT: E-Bike Safety for Youth

Dear REPRESENTATIVE

As Mayor of the City of Capitola, I am writing on behalf of our City to share concerns and recommendations regarding the regulation of electric bicycles (e-bikes). While we work diligently to enforce existing regulations at the local level, it is clear that these rules have not kept pace with advancements in e-bike technology and the rapid expansion of their use, particularly among our community's children and youth.

As you know, Capitola is a small coastal town with a footprint of just two square miles. Like many smaller cities, we face significant challenges in developing and enforcing a local regulatory framework to adequately address the complexities of e-bike use. A patchwork of local ordinances would not only be confusing to residents and visitors but it would also be difficult to enforce and be inconsistent with regional mobility patterns.

For this reason, we are urging the California Legislature to take the lead in establishing statewide e-bike regulations that prioritize safety while preserving the accessibility and environmental benefits of e-bike transportation. Below are three proposals we believe would have the most meaningful impact:

- 1. **Establish a minimum age of 14 for Class 2 e-bikes:** Class 2 bikes have a throttle and require no user pedaling input. Based on observations of rider behavior, the availability of a throttle on the Class 2 e-bikes can lead to less rider engagement and greater overall risk. Currently, there is no minimum age to ride a Class 2 e-bike. The minimum age to ride a Class 3 e-bike (assist up to 28 mph) is 16.
- Establish a written test/permit administered by the DMV for users less than 16 years old to use Class 2 e-bikes: Currently, there is no test or permit required for use of an e-bike for any age/person.
- **3.** Require traffic safety education as essential core curriculum for schools: In some other countries traffic safety education is integrated into school curriculum and community practices. In the US, drivers education is the only required traffic training and it's for people to drive a car, but comprehensive education on how to be a pedestrian, a bike rider, a transit user, etc. are relegated to elective educational opportunities.

We have reviewed these proposals for local and national bike advocacy groups, and we believe each of these proposals reflect a balanced approach—one that supports the benefits of e-bikes for sustainable transportation while addressing the very real safety concerns that are rising in communities like Capitola.



420 Capitola A Capitola, California 95010 Telephone: (831) 475-7300 FAX: (831) 479-8879 Website: http://www.cityofcapitola.org

I welcome the opportunity to bring a resolution to the Capitola City Council in support of any legislation that advances these goals and would be happy to further discuss these ideas with your office.

Thank you for your leadership and for your attention to this important issue.

In partnership,

Joe Clarke, Mayor City of Capitola



E-BIKES & YOUTH: SAFETY

April 10, 2025



E-Bikes: Pros & Cons

Community Benefits:

- •Reduce greenhouse gas emissions
- Promote active transportation and accessibility
- •Alleviate traffic and lowers transportation costs
- •Convenient for families & youth independence

Challenges:

- •Young riders unfamiliar with road rules
- •Unsafe riding behaviors
- •Vehicle design misuse (e.g., overloading)
- •Speeds up to 28 mph!

	CLASS 1	CLASS 2	CLASS 3
Pedal Assist	\checkmark	\checkmark	\checkmark
Throttle		\checkmark	
Max Speed	20 mph	20 mph	28 mph

Safety Concerns

Class 2

- No age restriction
- Throttle + speed = *potentially less rider engagement*

Class 3

• Age restricted to 16+

Safety Concerns:

- •No permit or test required for any Class ebike
- •Local regulation is challenging, given Capitola's size

Capitola PD Initiatives

Education & Outreach:

- Annual presentation at New Brighton Middle School
- "Bike Rodeo" with CHP at Capitola Mall
- Social media safety campaigns

Youth Engagement:

- Capitola Star Card incentives for safe riding
 - Connects Capitola Village businesses & youth



Capitola PD Enforcement

Special 2-week operation: early 2025

- 13 Warnings issued
 - Minor traffic violations (riding on sidewalk)

13 Citations issued

- No helmet
- Unsafe turns
- Stop sign violations
- Cell phone use
- Failure to obey traffic signs/signals
- Two Illegal e-motorcycles impounded



Item 9 C

Advocacy

Challenges with Local Regulation:

Capitola's small size (2 sq. miles) limits effectiveness
Consistency across jurisdictions

Proposed State Laws to Support:

1.Minimum Age 14 for Class 2 e-bike riders
2.DMV Written Test/Permit for under-16 Class 2 users
3.Traffic Safety Education in School Curriculum: core subject, like in many other countries

Recommended Action

- 1. Direct Mayor to sign and send a letter of support for proposed State legislation to:
 - Assemblymember Dawn Addis
 - Assemblymember Gail Pellerin
 - Senator John Laird

Proposed Language:

- 1. Establish a minimum age of 14 for Class 2 e-bikes: Class 2 bikes have a throttle and require no user pedaling input. Based on observations of rider behavior, the availability of a throttle on the Class 2 e-bikes can lead to less rider engagement and greater overall risk. Currently, there is no minimum age to ride a Class 2 e-bike. The minimum age to ride a Class 3 e-bike (assist up to 28 mph) is 16.
- 2. Establish a written test/permit administered by the DMV for users less than 16 years old to use Class 2 e-bikes: Currently, there is no test or permit required for use of an e-bike for any age/person.
- 3. Require traffic safety education as essential core curriculum for schools: In some other countries traffic safety education is integrated into school curriculum and community practices. In the US, drivers education is the only required traffic training and it's for people to drive a car, but comprehensive education on how to be a pedestrian, a bike rider, a transit user, etc. are relegated to elective educational opportunities.