PARKS, RECREATION, AND WATERFRONT COMMISSION

Regular Meeting
Wednesday, September 14, 2022, 7:00 P.M.

Parks and Waterfront Commission

PUBLIC ADVISORY: THIS MEETING WILL BE CONDUCTED EXCLUSIVELY THROUGH ZOOM VIDEOCONFERENCE AND TELECONFERENCE

- To access the meeting remotely: Join from a PC, Mac, iPad, iPhone, or Android device, join the meeting at the following public **URL**: https://us06web.zoom.us/j/89264197181
- If you do not wish for your name to appear on the screen, then use the drop-down menu and click on "rename" to rename yourself to be anonymous. To request to speak, use the "raise hand" icon by rolling over the bottom of the screen.
- To join by phone: Dial US: +1-669-900-6833,,89264197181#
- If you wish to comment during the public comment portion of the agenda, Press *9 and wait to be recognized by the Chair. **Note**: Your phone number will appear on the videoconference screen.

Agenda

The Commissions may discuss any items listed on the agenda, but may take action only on items identified as Action.

1. **Call to Order** (Chair).
2. **Roll Call** (Secretary).
3. **Action: Approval of Agenda** (Chair).
4. **Action: Approval of Minutes** for July 13, 2022 (Chair).*
5. **Public Comment**.
6. **Chair's Report**.
7. **Director's Report** (Ferris): Divisions: Recreation; Parks; Waterfront; Capital; Budget.
8. **Presentation: Berkeley Civic Arts Overview** (Zoe Taleporos, Public Art Program Lead).
9. **Action: Appoint PRW Commission liaison to Civic Art Commission** (Wozniak).
10. **Discussion: Update on FY2023 PRW CIP plan** (Ferris).
11. **Discussion/Action: PRW Commission Roadmap: a long-term action plan** (Floyd).*
12. **Discussion: Update on Civic Center Park Planning** (Diehm). *
13. **Information**: **Recent Council Reports. ***
14. **Future Agenda Items**: Workplan 2023; Parks Development Fee; One-time State funds PRW spending plan.
15. **Communications**. SF Exotic Landscape, SF Chron, 9-4-2022; Santa Fe ROW Park development community meeting, 10-05-2022; Fishing at the Berkeley Waterfront: What is it work?, SF State, 08-26-2022; The Owls Need a New Fence, M. Nicolaus, 09-10-2022.
16. **Next PRW Commission meeting**: Wednesday, October 12, 2022.

* document is attached to agenda packet and on the commission website.
** document will be provided at the meeting.

ADA Disclaimer: This meeting is being held in a wheelchair accessible location. To request disability-related accommodations to participate in the meeting, including auxiliary aids or services, please contact the Disability Services specialist at 981-6418 (V) or 981-6347 (TDD) at least three business days before the meeting date. Please refrain from wearing scented products to this meeting.

SB343 Disclaimer: Any writings or documents provided to a majority of the Commission regarding any item on this agenda will be made available for public inspection at Parks Recreation & Waterfront Department Office at 2180 Milvia Street, Berkeley, CA.

Communications Disclaimer: Communications to Berkeley boards, commissions or committees are public record and will become part of the City's electronic records, which are accessible through the City's website. **Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to a City board, commission or committee, will become part of the public record.** All communications to the Commission should be received at least 10 days before the meeting date. If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service or in person to the secretary of the relevant board, commission or committee. If you do not want your contact information included in the public record, please do not include that information in your communication. Please contact the secretary to the commission or committee for further information.

Commission Information: The agenda packets for the Parks and Recreation Commission and the Waterfront Commission are available for review at www.cityofberkeley.info/commissions; the Berkeley Main Library and the Parks Recreation & Waterfront Department Office at 2180 Milvia Street –3rd Floor, during their normal business hours. If you have questions, call Commission Secretary, Roger Miller at 981-6704 at 2180 Milvia Street, Berkeley, CA 94704 or by email at rmiller@cityofberkeley.info.

MISSION STATEMENT – PARKS AND WATERFRONT: Reviews and advises the City Council on issues related to all City/public parks, open space, greenery, pools, programs, recreation centers, the Waterfront, and resident camps: their physical conditions, policies, projects, programs, planning efforts, activities, and funding; early childhood education programs; and animal care issues in parks.

COMMISSION MEMBERS

Mayor - Gordon Wozniak	**District 3 -** Brandon Floyd	**District 6 -** Laurie Capitelli
District 1 - Kerry Birnbach	**District 4 -** Erin Diehm	**District 7 -** Davina Srioudom
District 2 - Claudia Kawczynska	**District 5 -** Brennan Cox	**District 8 -** Mark Humbert

Current Subcommittees: none

2022 Commission Meeting Dates

Name of Commission: Parks, Recreation, and Waterfront Commission

Commission Secretary: Roger Miller

Location: Frances Albrier Community Center, 2800 Park St

Month	Meeting Day and Date (2nd Wednesday per month)	Time	Notes
2022			
January	No meeting		
February	Wednesday, February 16	7:00 p.m.	Regular Mtg (Zoom)
March	Wednesday, March 9	7:00 p.m.	Regular Mtg (Zoom)
April	Wednesday, April 27	7:00 p.m.	Regular Mtg (Zoom)
May	Wednesday, May 11	7:00 p.m.	Regular Mtg (Zoom)
June	Wednesday, June 8	7:00 p.m.	Regular Mtg (Zoom)
July	Wednesday, July 13	7:00 p.m.	Regular Mtg (Zoom)
August	No meeting		
September	Wednesday, September 14	7:00 p.m.	Regular Mtg
October	Wednesday, October 12	7:00 p.m.	Regular Mtg
November	Wednesday, November 9	7:00 p.m.	Regular Mtg
December	Wednesday, December 14	7:00 p.m.	Regular Mtg
2023			
January	Wednesday, January 11	7:00 p.m.	Regular Mtg

PARKS AND WATERFRONT COMMISSION
Regular Meeting
Wednesday, July 13, 2022, 7:00 P.M., Zoom Meeting

Minutes – Draft

The Commissions may discuss any items listed on the agenda, but may take action only on items identified as Action.

1. **Call to Order** (Chair). 7:00pm.
2. **Roll Call** (Secretary). Present: Birnbach; Cox; Diehm; Floyd; Humbert; Kawczynska; Srioudom; Wozniak; Absent: Capitelli (LOA).
3. **Action: Approval of Agenda** with corrections (Chair). (M/S/C: Floyd/Diehm/U): Ayes: Birnbach; Cox; Diehm; Floyd; Humbert; Kawczynska; Srioudom; Wozniak; Noes: None; Absent: Capitelli (LOA).
4. **Action: Approval of Minutes** for June 8, 2022 (Chair).* (M/S/C: Kawczynska/Cox/U): Ayes: Birnbach; Cox; Diehm; Floyd; Humbert; Kawczynska; Srioudom; Wozniak; Noes: None; Absent: Capitelli (LOA).
5. **Public Comment**: Peter Shurman, Cesar Chavez Park; Camille Antinori, Cal Sailing, update on $15M from state and TOT tax to Marina; Susan Schwartz, Friends of Five Creeks, mowing; Sean O'Laughlin, Skate XP; Brittany Whitlock, Berkeley Way Mini-park off leash dog park; Kelly Hammargren, bird safe glass; Grant Shumann/Natalie, open space; Helen Walsh, accessibility and design at the Marina; Martin Nicolaus, bicycle lane issue at newly paved University Ave.
6. **Chair's Report** (Wozniak). Update on Transient Occupancy Tax (TOT) for Marina; road repair at University Ave.
7. **Director's Report** (Ferris): Divisions: Recreation; Parks; Waterfront; Capital; Budget. Update was provided.
8. **Discussion/Action**: **City-adopted PRW 2023/24 Operations and CIP Budget Update** (Ferris/Wozniak). Update provided. Public Comment: Virginia Browning, accessibility.
9. **Discussion: Berkeley Marina Area Specific Plan (BMASP) project** (Wozniak).* Public Comment: a) Camille Antinori; b) Ernest Isaacs; c) Maggie Goodman; d) Mickey Duxbury; e) Sally Nelson; f) Daniel Larlham; g) Martin Nicolaus; h) Robert Blomberg; i) Yvette; j) Anna Kamerow; k) Julie Cato; l) Chloe Chaudhury; m) Nick Despota; n) Wendy Patterson; o) Rachel Bradley; p) Jeff Malmuth; q) Kelly Hammargren; r) Jim McGrath; s) Virginia Browning; t) Daniel Borgstrom; u) Meryl Siegel; v) Julia Maas; w) Erik Radock; x) Gina; y) Haseeb Chaudhury; z) Lex Morris; aa) Marcy Darnovsky; bb) Celeste Agos; cc) Emma Chavalier; dd) David Fielder; ee) Paul Leondis; ff) Grant Shumann/Natalie; gg) Gael Alcock; hh) Gordon Stout; ii) Lucy Phenix; jj) Yar; kk) Mark Ziodis; mm) Emma Swachet; nn) Mark Lowe.
10. **Discussion: PRW Roadmap: a long-term action plan** (Floyd).* Held over.
11. **Discussion: In-person commission meetings** (Wozniak). Not discussed.
12. **Information**: **Recent Council Reports. ***
13. **Future Agenda Items**: Workplan FY2022-2023; Parks Development Fee; Parks Tax & Parking Space Exclusion; Solar panels at community centers; Art in Parks; One-time State funds PRW spending plan.
14. **Communications**. PRW Commission to Council re: Vision 2050, 6/10/2022; Black necked Stilts at Aq Pk, 07-13-2022); New sailing club article, 7-8-2022.
15. **Next PRW Commission meeting**: Wednesday, September 14, 2022
16. **Adjournment**: 9:55pm.

* document is attached to agenda packet and on the commission website.
** document will be provided at the meeting.

***Note**: For handouts distributed at the meeting, please see the Draft Minutes for July 13, 2022 on the Parks, Recreation, and Waterfront Commission webpage at the following link online:
https://berkeleyca.gov/your-government/boards-commissions/parks-recreation-and-waterfront-commission

Berkeley Municipal Code

Chapter 3.26 PARKS, RECREATION, AND WATERFRONT COMMISSION

Sections:

3.26.010 Established--Membership--Appointment.

A. A Parks, Recreation, and Waterfront Commission is established. The commission shall consist of nine members. Appointments to the commission shall be made, and vacancies on the commission shall be filled, in accordance with the provisions of Sections 2.04.030 through 2.04.145.

B. For purposes of determining term limits under Section 3.02.040, a commissioner's prior service on the Parks and Waterfront Commission, the Children, Youth, and Recreation Commission, or the Animal Care Commission shall be counted, provided that their prior service was terminated by their appointment to the Parks, Recreation, and Waterfront Commission. (Ord. 7794-NS § 1 (part), 2021)

3.26.020 Council representatives--Functions.

The City Council may appoint one of its members to act as a non-voting, uncompensated liaison representative to the Parks, Recreation, and Waterfront Commission. The functions of such liaison representatives are:

A. To attend meetings of said commission;

B. To advise the Council of the background, attitude and reasons behind decisions and recommendations of said commission; and

C. On request of any member of said commission, to advise the commission of policies, procedures and decisions of the council that may bear on matters under discussion by the commission. (Ord. 7794-NS § 1 (part), 2021)

3.26.030 Organization, meetings, rules and procedures.

A. The commission annually shall elect one of its members as the chairperson and one of its members as the vice-chairperson. An officer or employee of the City designated by the City Manager shall serve as secretary of the commission.

B. The commission shall establish a regular place and time for meeting. All meetings shall be noticed as required by law and shall be scheduled in a way to allow for maximum input from the public. The frequency of meetings shall be as determined by City Council resolution. The

scheduling of special meetings in addition to those established by City Council resolution, except special meetings that take the place of cancelled regular meetings, shall be subject to approval by the City Council. A request for a special meeting shall include the reason for the proposed meeting and should be expedited on the City Council's agenda, or in the alternative, placed before the Agenda Committee for approval.

C. The commission may make and alter rules governing its organization and procedures which are not inconsistent with this Chapter or any other applicable ordinance of the City.

D. A majority of the members appointed to the commission shall constitute a quorum and the affirmative vote of a majority of the members appointed is required to take any action.

E. The commission shall keep an accurate record of its proceedings and transactions. (Ord. 7794-NS § 1 (part), 2021)

3.26.040 Functions.

A. The Parks, Recreation and Waterfront Commission shall be an advisory board and shall review the following related to all City/public parks, open space, greenery, pools, programs, recreation centers, the Waterfront, and resident camps: their physical conditions, policies, projects, programs, planning efforts, activities, and funding; early childhood education programs; and animal care issues in parks, and shall advise the City Council on these matters.

B. The Parks, Recreation, and Waterfront Commission shall have the authority to adopt the minutes of the final meetings of the Parks and Waterfront Commission, the Children, Youth, and Recreation Commission, and the Animal Care Commission. (Ord. 7794-NS § 1 (part), 2021)

September 14, 2022
To: Parks, Rec and Waterfront Commission
From: Erin Diehm, Commissioner
Subject: Brief update on Civic Center Planning

This is a quick update on the planning process for the Civic Center Park and surrounding historic buildings - the VA Building and the Maudelle Shirek Building ("Old City Hall"), including links to 3 upcoming meetings:

Regular Monthly CCCC Meeting
Monday, Sept 19, 12noon
https://us02web.zoom.us/j/84610947314?pwd=MytWamtoR1VRSU5WMEZEclZyOEJNdz09

Civic Center Project Team Discussion of Design Elements with CCCC
Wednesday, September 21, 3pm
https://us02web.zoom.us/j/84610947314?pwd=MytWamtoR1VRSU5WMEZEclZyOEJNdz09
Meeting ID: 846 1094 7314
Passcode: 004451

Multi-Commission Meeting (Public Works, Parks, Landmarks, Civic Arts)
Thursday, September 29, 11:00 AM (PST)
Presentation of Initial Civic Center Conceptual Design Options.
https://us02web.zoom.us/j/81499570453?pwd=Qk9tU3BFbml2bFg0TWlmVGVTeHJGZz09
Webinar ID: 814 9957 0453 | Passcode: 528648
Or One tap mobile :
US: +16699009128,,81499570453# or +16694449171,,81499570453#

Key Milestones

- July 2019 - City Council entered into a contract with Gehl Studio for the Civic Center Vision and Implementation Plan
- Sept 2020 - City Council accepted the Plan, but held off on approving the recommended preferred Conceptual Design Option due to various concerns about the Plan
- Oct 2020 - CCCC forms to explore possible next steps
- For additional key dates see: berkeleycccc.org/background

Online Resources

- **City of Berkeley** - Civic Center Vision Plan Project
  - https://berkeleyca.gov/your-government/our-work/capital-projects/civic-center-vision-plan-project
- **CCCC** - Community for a Cultural Civic Center
  - https://berkeleycccc.org
- **Gehl Report** - Berkeley's Civic Center Vision and Implementation
  - https://neighborland.com/berkeleycc
- **Berkeleyside article** - September 4 2022
  - www.berkeleyside.org/2022/09/04/berkeley-civic-center-measure-l-downtown

PARKS AND WATERFRONT COMMISSION

RECENT COUNCIL REPORTS

The following council reports are available for review at the Parks Recreation & Waterfront Department administrative desk, 2180 Milvia Street, 3rd floor, or can be accessed from the City Council Website by using the following URL's:

September 13, 2022

15.-Lease Agreement: 80 (North Building), 82/84 & 90 Bolivar Drive in Aquatic Park with Waterside Workshops
URL: https://berkeleyca.gov/sites/default/files/documents/2022-09-13%20Item%2015%20Lease%20Agreement%2080%20%28North%20Building%29.pdf

16.-Donation: Memorial Bench at the Cesar Chavez Park in memory of Walt and Trudee Rowson
URL: https://berkeleyca.gov/sites/default/files/documents/2022-09-13%20Item%2016%20Donation%20Memorial%20Bench%20at%20the%20Cesar.pdf

17.-Donation: Memorial Bench at the Cesar Chavez Park in memory of Don Rothenberg
URL: https://berkeleyca.gov/sites/default/files/documents/2022-09-13%20Item%2017%20Donation%20Memorial%20Bench%20at%20the%20Cesar.pdf

18.-Donation: Memorial Bench at the Indian Rock Park in memory of Dave Altman
URL: https://berkeleyca.gov/sites/default/files/documents/2022-09-13%20Item%2018%20Donation%20Memorial%20Bench%20at%20the%20Indian.pdf

19.-Contract: Bellingham Inc. to Replace and Repair Docks at the Berkeley Marina
URL: https://berkeleyca.gov/sites/default/files/documents/2022-09-13%20Item%2019%20Contract%20%20Bellingham%20Inc.%20to%20replace.pdf

July 26, 2022

16.-Donation: New Sign at Berkeley Waterfront - from Caltrans
URL: https://berkeleyca.gov/sites/default/files/documents/2022-07-26%20Item%2016%20Donation%20New%20Sign%20at%20Berkeley%20Waterfront.pdf

17.-Contract: AE3 Partners, Inc. for Architectural Services for the African American Holistic Resource Center
URL: https://berkeleyca.gov/sites/default/files/documents/2022-07-26%20Item%2017%20Contract%20%20AE3%20Partners%2C%20Inc.pdf

18.-Extension of Exclusive Negotiating Agreement with Innovation Properties Group for 199 Seawall Drive
URL: https://berkeleyca.gov/sites/default/files/documents/2022-07-26%20Item%2018%20Extension%20of%20Exclusive%20Negotiating.pdf

19.-Approval of Funds for Electric Vehicle Charging Stations at Tuolumne Camp
URL: https://berkeleyca.gov/sites/default/files/documents/2022-07-26%20Item%2019%20Approval%20of%20Funds%20for%20Electric_0.pdf

One of San Francisco's most exotic landscapes is in a park that's 70 feet above ground

John King

Sep. 4, 2022

Howard Street in San Francisco's Financial District, near Salesforce Park, has less foot traffic these days than before the pandemic.

Felix Uribe/Special to The Chronicle

The very name is a corporate branding exercise. Your contemplation of serene landscapes can be shattered by tech bros striding by in loud conversation. There are a *lot* of people in yellow windbreakers wearing caps that say "SECURITY."

I acknowledge all this in advance, as well as the weirdness of a 5.4-acre size public park 70 feet in the air. None of which changes one basic fact: Salesforce Park, the rooftop

area above San Francisco's 4-year-old transit center, keeps getting better with age.

5

The elongated, oval greenspace is a semi-natural wonder, thick with 280 species of trees and plants arranged into 12 distinct gardens. There are nooks and crannies

where you can gather with friends or relax in isolation. Despite office towers on all sides, the people you encounter are a mix of ages and economic backgrounds.

Malavika Malik (left) and Akshay Murthy walk the path at Salesforce Park in San Francisco.

Felix Uribe/Special to The Chronicle

In other words, it's a constant joy in a part of the city that has needed all the help it can get since the pandemic arrived.

More from John King

S.F.'s Tunnel Tops park is open. But it might not be the best new park at the Presidio

Read Now

Downtown San Francisco's revival plan needs more than live music and light projections

Read Now

For those of you who haven’t stopped by the transit center — with its web-like, white metal skin that extends from Beale Street almost three blocks to the west, with alleys on either side — here’s a thumbnail history.

The idea dates to 2001, when the Transbay Joint Powers Authority was formed to replace the aged existing terminal with a new facility that would welcome East Bay commuter buses while also having underground platforms where passenger trains from the peninsula could pull in. By the time design work began in 2007, high-speed rail from Los Angeles had been added to the desired mix.

I'll leave out all the drama along the way, but the center finally opened in 2018 — and then closed for 10 months because two cracked structural girders were spotted by a worker. The $1.6 billion price tag had climbed to $2.259 billion. The second phase, with its rail service, was in limbo.

To help cover operating costs, the authority cut a $110 million, 25-year sponsorship deal with Salesforce. The homegrown tech firm helps pay for things like security and, in return, the facility is now officially called Salesforce Transit Center (sigh), with Salesforce Park on top (double sigh).

Given this back story, the park has received its share of brickbats. New Yorker writer Anna Weiner in 2019 characterized the "rooftop arcadia" as "expensive, sponsored, and surveilled." This July, Andrew Chamings in our sister publication SFGATE dismissed it as a "sanitized Teletubby garden."

Chamings' column was fueled by a legitimate gripe — an overscaled rooftop cafe space that shouldn't be there in the

first place (another bid for extra revenue) has a tenant that now intends to sell memberships with fees as high as $300,000 — not a typo! — for "curated" experiences,

though the Japanese restaurant that's planned will be open to all.

But good things in a big city often have flawed aspects if you look close. And with the local tech world such an easy target for snark and scorn, no wonder the lush rooftop suffers collateral damage.

So what makes the park enticing, and in ever more satisfying ways? For starters:

A close up view of a Gunnera tinctoria, or Chilean rhubarb, plant leaf that stands 8 feet tall along the path at Salesforce Park.

Felix Uribe/Special to The Chronicle

• It’s immersive. From day one, despite cost cutting elsewhere in the huge project, the landscape with its procession of gardens was a knockout. The transit authority never skimped on the range of plantings, from ordinary to exotic, or the sizes of what went into the ground.

“We wanted it to feel like a park on opening

day, not a roof deck," says Adam Greenspan of Peter Walker & Partners, the landscape architecture firm that conceived the space, working with Pelli Clarke Pelli architects.

That was in 2018. Now there are stretches where the trees close in above you, such as the segment above Fremont Street where strawberry trees with their smooth orangey trunks reach over the walkway and meet the European hornbeam across the way. Wonderful.

Drought Map

Track water shortages and restrictions across Bay Area

Updated to include drought zones while tracking water shortage status of your area, plus reservoir levels and a list of restrictions for the Bay Area's largest water districts.

Palm trees and fern plants are planted along the path at Salesforce Park in San Francisco.

Felix Uribe/Special to The Chronicle

• There’s variety. My favorite spot in some ways is the “wetland garden” at the east end, organized around two circular trios of birch trees ringed by golden granite seating. Plus one surrealistic plant choice for a seasonal hedge — “Gunnera Manicata,” a.k.a dinosaur food, which gets cut back to the ground in winter but in summer has individual leaves five feet wide. Trippy.

• Not everyone is a techie. Visit on weekends and prepare to encounter an abundance of families. During the week there are toddler playtimes; the one I walked by last Tuesday was accompanied by 27 parked strollers, with the target audience crawling or careening in all directions.

At other times during the week, adults sit by themselves reading books. Older people walk laps, safely removed from traffic

below. Newish nearby buildings include residential ones reserved for low-income seniors and families — and for that population, this is their neighborhood

Micheál McLaughlin soaks in the sun at Salesforce Park. Micheál says, “I’m from Ireland, and we don’t get much sun like this in my hometown.”

Felix Uribe/Special to The Chronicle

• The best is yet to come. Eateries are slowly opening along the alleyways, another small

hint of downtown San Francisco's fitful return. Authority officials hope to receive full funding next year for the $5 billion or so needed to expand high-speed rail and Caltrain into the massive concrete shell that was built a decade ago beneath the center's main hall. I also see more people in the park — and the more people who find their way up to the gardens, the more the overt security presence is diluted.

As for the name, the original plan was to call it simply City Park. As an indication of what this place could be, that still seems like an appropriate choice.

John King is The San Francisco Chronicle's urban design critic. Email: jking@sfchronicle.com Twitter: @johnkingsfchron

Written By

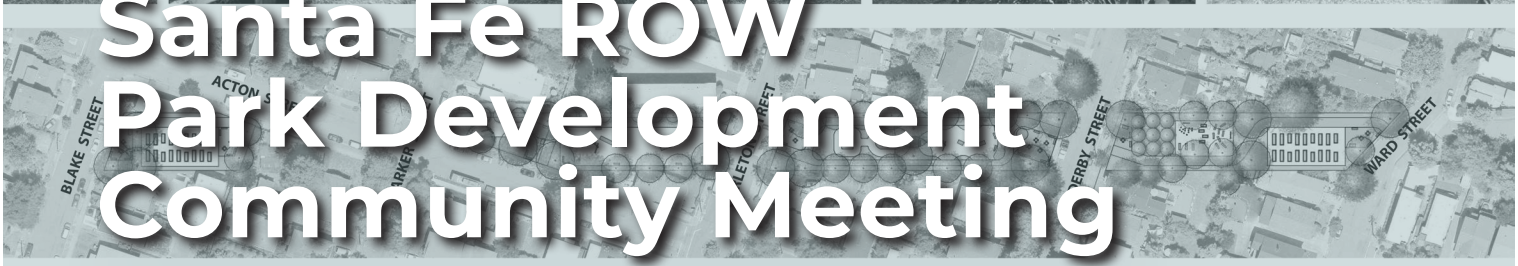
John King

Reach John on

John King is The San Francisco Chronicle's urban design critic, taking stock of everything from Salesforce Tower to sea level rise and how the pandemic is redefining public space. A two-time Pulitzer Prize finalist and author of two books on San Francisco architecture, King joined The Chronicle in 1992 and covered City Hall before creating his current post. He is an honorary member of the American Society of Landscape Architects.

Parks Make Life Better!

Santa Fe ROW Park Development Community Meeting



Wednesday, October 5, 2022

Please join us for a community meeting for updates on the new park planned at the former Santa Fe Railroad parcels (Blake Street to Ward Street), and come ready to provide input on future improvements including:

1. Community garden
2. Dog park
3. Age 2-5 playground
4. Community garden, orchard and outdoor classroom space

When:	Wednesday, October 5, 6:30pm–8:30pm
Zoom:	https://us06web.zoom.us/j/86996996880
Meeting ID:	869 9699 6880
Passcode:	746072
Phone:	+1(669)444-9171,,86996996880#

CITY OF BERKELEY

For questions, or to be added to the project's email list, contact Stacey Rutherford at SRutherford@cityofberkeley.info, and **visit:**
https://berkeleyca.gov/your-government/our-work/capital-projects/santa-fe-right-way-park

Fishing at the Berkeley Waterfront: What is it Worth?

DRAFT SUMMARY REPORT

Camille Antinori, Melisa Moises Banal, Philip King, and Matt Peterson

San Francisco State University

Photo credit: Marinas.com, n.d.

We are grateful for the generous financial support of the San Francisco State University Lam Family College of Business Community Engagement program and the California State University (CSU) Council on Ocean Affairs, Science & Technology (COAST).

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Executive Summary

Key findings:

- The Berkeley waterfront is a popular fishing site, not just for party and charter boats but also recreational shoreline fishing. Like many coastal activities in California, little is known about the extent and patterns of use. This report for the first time fills that gap for shoreline fishing, one of the least studied water-related sports in California.
- The data from an original intercept survey conducted in 2021 and 2022 reveals distinct patterns. First is frequency: the "average" Berkeley shoreline angler visits almost 37 times a year and travels 23 miles in Bay Area traffic and foresees continuing this pattern in the near future. If a pier akin to the one which closed in 2015 (~3000 feet in length) were reconstructed and area cleaned up, the stated frequency of visits would almost double, to 64 times a year on average.
- Second, Berkeley is a regional, mainly East Bay, recreational fishing amenity, with anglers coming from as far as Sacramento on a regular basis. The Berkeley waterfront is a top choice for many of them who have visited since their childhood and learned to fish from the previous generation. In addition to the walkers and sightseers, anglers state that they enjoy views of the bay as they fish for pleasure, food or bait.
- Third, shoreline angling cuts across socioeconomic groups. Anglers from lower income households were willing to travel farther to visit Berkeley's shoreline than those in higher income brackets. Should a new pier be constructed, this group reported the highest average frequency of visits. Those identifying as Black or African American visit most often, 42 times per year, followed by Hispanics who visited 38 times per year on average. Asians travel the furthest and visit least frequently as a group.
- Most anglers expressed a willingness to pay an extra direct fee of about $4.95 on average per day, in our study posed as a daily parking rate, but which could also be a pier entrance fee, if funds were applied to maintaining a rebuilt pier.
- Using travel cost analysis, we find that anglers visiting Berkeley primarily to fish its shoreline enjoy an economic benefit of $40 per trip and visit a predicted 32 times a year on average with the area in its current state. If the City of Berkeley builds a pier with minor quality improvements, the per trip benefit would be $35 for a predicted number of 56 trips per year on average.
- Based on estimated visitation rates, these results bring the total consumer surplus of shoreline fishing to $1.88 million per year, and $2.88 million per year with a public fishing pier. While we continue to work on refining these values, it is evident that shoreline fishing brings a sizeable benefit to the Bay Area's anglers and a valued water-oriented recreational activity.
- Access for all to coastal resources in California is a high priority for California's state agencies. This study indicates that shoreline fishing near the Berkeley Marina provides valuable access to exactly the types of disadvantaged communities that the State of California has prioritized.

Acknowledgements

Authors wish to acknowledge the Spring 2022 ECON 550 students for their contributions to the class project portion of this study: Ian Ardell, Ivan Barrales, Daniel Colton, Lorenza De Vriese, Christopher Figueroa, Atticus Flores, Nicholas Giorgio, Adam Kodzis, Somi Lee, Zhuoying Lu, Nathan Martinez, Melissa Ness, Maria Jose Olea Gerardo, Samuel Salas, Kean Szeto, Anna Weiner, and Jong Chan Yi, and Barrales and Figueroa for additional survey administration support. We also extend thanks to Cal Sailing Club members, especially Audrey Yen, for their assistance, and Peter Kuhn for invaluable input into project design. Finally, we would like to acknowledge the overall contributions of Dr. Nina Roberts (1960-2022), SFSU, to recreational parks and community engagement initiatives at SF State.
Corresponding author: Camille Antinori, antinori@sfsu.edu

1. Introduction

Over the past decade, there has been a growing awareness that access to California's coast is unequal.[1] This lack of access is exacerbated by the fact that living on and even visiting the coast are becoming more expensive. Planning agencies associated with the blue economy and water-based recreation increasingly express interest in advancing environmental and social justice (ESJ) goals aimed at bringing low-income and underrepresented groups, included those with disabilities, to the coast. For example, the San Francisco Bay Conservation and Development Commission (BCDC), in recognition of the cultural diversity of the waterfront, is considering amending its Bay Plan to address social equity in public access to shorelines and integrate environmental justice considerations into the policymaking process (BCDC 2020[2]), as has the California Coastal Act of 1976 (CCA 2021). Federal initiatives also exist with similar goals (e.g. White House, 2022, USACE 2022).

One coastal activity that has been given relatively little consideration in this discussion is recreational shoreline fishing. A few peer-reviewed studies exist on pier fishing, where California law allows fishing without a license. A Los Angeles study interviewed just over 3000 anglers in 2008-2009 and found that the majority (60.4%) identified as "Latino" and that as a whole these anglers were "demographically distinct" from other fishing communities, e.g., 78% *only* fish from piers and the majority speak English as a second language (Stevenson et al., 2012). A smaller survey study of pier fishing in Santa Barbara (Quimby et al., 2020) found that 88% of respondents reported annual household income below state median and 73% were non-white. No studies of shoreline recreational fishing in California could be found for our analysis, yet this activity also represents a low-cost, water-based recreational activity.

Simultaneously, the issue has importance for planning considerations, i.e. what value does boating or walking or fishing along a coastal waterfront bring to an urban community and how do those values compare against other uses of a waterfront? Across California there is a dire need for such information for coastal planning and development. The Center for a Blue Economy (2021) states "[b]ecause there is no systematic, regular assessment of coastal recreation in California it is difficult to make decisions about current and future uses of the coast" (p. 6).

This report is a preliminary analysis aimed at addressing these questions in regards to shoreline fishing along the stretch of City of Berkeley waterfront on the east shore of the San Francisco Bay. This project serves multiple purposes. First, shoreline fishing at the Berkeley waterfront increased significantly during the pandemic as people sought safe means of recreational activity. The data herein provides a systematic assessment on use patterns and shines a light on underreported values and interests. Second, the City of Berkeley is in the midst of a planning process for the marina and waterfront area that could significantly impact recreational uses, yet little information on shoreline fishing has been brought to bear on the discussion, especially in context of an indefinitely-closed pier once popular with local anglers. Finally, the study lays the groundwork for valuing shoreline access

[1] For example, see https://www.ioes.ucla.edu/wp-content/uploads/UCLA-Coastal-Access-Policy-Report.pdf.
[2] See in particular the BCDC SF Bay Plan (https://bcdc.ca.gov/plans/sfbay_plan.html) under Major Proposals (4), Recreation: Findings (b) (w), Recreation: Policies (1), (9), Public Access: Findings (b), Environmental Justice and Social Equity: Findings (g), Policies (3).

using widely accepted economic techniques to contribute to policymaking when coastal access may be traded off in many urban development projects (e.g. Cano 2022).

The study utilizes modeling and statistical measures common in the environmental economics profession to value activities not traded in everyday markets but which nevertheless have value, such as natural settings or a day spent shoreline fishing. In absence of significant secondary data sources, this project relies on original data from face-to-face surveys with fishermen engaged in fishing along the waterfront area. [3] Our efforts focus on characterizing recreational shoreline angling and estimating nonmonetary values with the area as-is and with a possible reopening of the pier. The following sections report summary statistics and econometric estimation results as well as qualitative, anecdotal statements provided by respondents, followed by a conclusion and discussion of future work.

2. Background

The waterfront examined in this study is located in Berkeley, California. The area, including Cesar Chavez Park, covers more than 100 acres of open space and seven miles of trails frequented by dog owners, birdwatchers, sailors, windsurfers, fishermen, bicyclists, kite flyers, and others enjoying the outdoors and expansive views of the bay. The area constitutes state public trust lands bequeathed to Berkeley in 1913 by the State Lands Commission (CSLC, 1913). Later statutes specifically protect the convenient access for the purpose of fishing (CSLC 1962, p. 343), as does the California Constitution regarding public lands (CC, n.d.). The shoreline 100 feet inwards from the bay waters falls under the Bay Conservation and Development Commission (BCDC) Bay Plan which balances current and future park and recreational uses with development (BCDC 2020).

The historical Berkeley pier, closed in 2015 due to seismic safety concerns, extended almost 3000 feet into the bay and was considered the best halibut fishing in the state of California and one of the most visited piers in California, unique along the Rodeo-Oakland-Hayward waterfront corridor for access to deeper water (Placzeck, 2017; Jones 2018). According to Jones (2018), it was the first pier funded by the Wildlife Conservation Board in 1959 and immediately revealed its cost effectiveness by the high numbers who frequented the pier after its opening. Since pier closure, fishermen frequent the shoreline, primarily on the west side facing the Golden Gate Bridge, throughout the year, with higher activity April through September in response to the local halibut runs. No entrance fee exists for the area and parking is free. Fishing along banks or beaches requires a license but is otherwise generally free.

To our knowledge, no study examines shoreline fishing in Berkeley, though some reports state the significance of fishing in California and the Bay Area. Pendleton and Rooke (2006) claim that California is second only to Florida in number of annual participants in both coastal recreation and saltwater fishing, with 17.6 and 2.7 million, respectively [p. 2]. Their investigation set direct market expenditures from

[3] The Pacific States Marine Fisheries Commission collects recreational fishing data through its RecFIN project (https://www.recfin.org/) for California, Oregon and Washington and California Recreational Fishing Survey through both telephone and field surveys (CDFW 2017). However, datapoints on shore-based fishing (beach/bank) or piers (manmade structures) at any particular site are too sparse for analysis.

$21 to $564 per day by fishermen in California and nonmarket[4] values of $15 to $90 per person per day, amounting to $305 million to $1.83 billion per year in the year 2000. All figures were expected to increase 12% by 2010 [p. 7].

In a travel cost study of the California halibut fishery, the Berkeley port ranked first in frequency of use for initiating party and charter boats trips for halibut (Barrientos et al. 2017, p. 7) and third of all California ports in average nonmarket value per year. The nonmarket value represented by the California halibut fishery as a whole, based on travel cost methodology, for charter/party boat halibut fishing trips was $43.51, amounting to $2.6 million per year in consumer net benefits [p. 15].

Figure 1: Fishing poles set up along Seawall Drive south of closed pier

Photo credit: *C. Antinori, 2022.*

Planning efforts under the Berkeley Pier/Ferry (https://www.cityofberkeley.info/parks/pier/) project and Berkeley Marina Area Specific Plan (BMASP, https://www.cityofberkeley.info/BMASP/) program are currently underway to invest in the marina and parks area after years of deferred maintenance. In late 2021, the city council moved forward with a feasibility study for a large-scale commercial ferry service with a shortened pier out to 300-600 feet.

Shoreline fishermen have been arguably less represented in policymaking processes, partly because there is no organizing focal point of communication and many come from outside of Berkeley. Other recreational sports at the waterfront often have social clubs, like swimmers, kayakers, windsurfers, canoers and even walkers at Cesar Chavez park, while small and large boat sailing and the private or party boat sport fishing operations have a physical presence.[5] The consultant study commissioned to reimagine the area makes mention of boating and other commercial activities and special events rather than ongoing shoreline activities (Hargreaves, 2020). The pier itself was not subject to redesign discussions during the BMASP process (BMASP, 2022b). A proposal to bring a ferry to the original pier and partially rebuild the pier introduces potential tradeoffs between shoreline and pier fishing and a ferry service operating from near shore. Public comments have expressed both desire to develop more

[4] A nonmarket value refers to the value of a good or service which is enjoyed but traded in the market like conventional goods. An example is a walk along an open shoreline.

[5] Community engagement has generally been a source of contention for the BMASP and pier/ferry process (CESP 2022, PRW 2022a, COB-WETA 2021b, and Pier-Ferry 2021.

public fishing amenities (City of Berkeley 2021) and concerns about a ferry/fishing space (COB-WETA 2021a,b).

Figure 2: Schematic of Berkeley Marina Area

Source: *Berkeley City Council, 2021.*

3. Survey Methodology

This project began in May 2021 as an environmental economic research study by Dr. Camille Antinori of San Francisco State University. Using the "intercept survey" approach whereby anglers are approached onsite while fishing, short surveys were administered along the most popular Berkeley shoreline fishing spots, specifically Seawall Drive both north and south of the old pier and the inner shore of the south basin near the former Hs. Lordships Restaurant. These onsite, face-to-face surveys are often more practical than a mail or telephone survey because the population of anglers within a general population is typically low. The basic core set of questions asked from what town the fisher was visiting from, frequency of visitation over a year, why they are fishing, alternative fishing sites frequented, and due to the planning context, opinions on a shoreline conditions, pier renovation and ferry terminal design and placement. On any given site visit, all anglers encountered were asked to participate in the survey which lasted about 10 minutes.

With financial support from SFSU and CSU in Spring 2022, Dr. Antinori expanded the survey to more closed-ended questions on visit frequency with pier renovation and socioeconomic characteristics with aim of quantifying a change in visit demand should a pier reopen. Adding site attributes or introducing quality changes has a long tradition in travel cost analysis (e.g. Ojumu et al, 2009; Whitehead et al. 2000). A direct "willingness-to-pay" question phrased as a parking fee question was added to elicit the

effect of access costs. Note that this approach was in no way meant to test any plan for parking fees. Rather, it is only a vehicle to understand further the demand for quality changes in the area for anglers. A pier entry fee would have worked just as well and in fact many fishers suggested that as a way to raise money for pier maintenance and preferred that over a parking fee, as it serves to limit congestion on the pier directly. We associated the question with pier restoration because in trials no one was willing to pay anything extra for site access in its current condition. Overall, this question should be thought of as an additional cost, above travel to the site, people are willing to pay if the pier were reconstructed.

For selecting times of collection, parameters were daylight hours and when water levels are above three feet from the mean lower low water (MLLW) mark for each day as determined by NOAA tide predictions tables (NOAA 2022). Survey enumerators were trained in standard practice in survey administration and handling the data. All interviews are anonymous and no personally identifiable information was collected or stored. Surveys were administered through June 2022 for a total of 183 interviews. To capture variances in fishing over time, we conducted site visits on a combination of weekdays and weekends each month, with more visits March to end of June to coincide with increased activity during halibut season.[6] Each survey represents one household. At the end of the survey, interviewees received a list of the City of Berkeley websites with information on the city planning process along with name and contact of the lead investigator. While fishers come from diverse backgrounds, most spoke English thus allowing use of an English language survey. Occasionally, predominantly Spanish speakers were encountered. As several survey enumerators spoke Spanish, they administered the survey in Spanish with on-the-spot translations. Only two survey interviews were declined due to a language barrier.[7]

4. Summary Data

The focus of study is shoreline anglers at the Berkeley waterfront, so we subset the full dataset to those who stated they came primarily to fish and traveled less than 200 miles, as we assume those with a point of origin >200 miles visited for other reasons not stated. This subset includes 169 observations and is the basis of the analysis below.

Travel cost and visit frequency

Travel cost is calculated as the round trip distance between an interviewee's given origin and zip code and the Berkeley marina, multiplied by 61.88 cents per miles as used by the American Automobile Association (https://exchange.aaa.com/automotive/aaas-your-driving-costs/) which assumes 15,000 miles/yr. driven and includes depreciation and maintenance costs. The zipcodeR program (Rozzi, 2021)

[6]By comparison with other small-scale data collection efforts, Quimby et al. (2020) collected 106 surveys at SoCal piers during the period of May to September over an unspecified number of days and Hanauer et al. (2017) collected 495 useable surveys on a heavily trafficked trail at a Sonoma county regional park over 16 days in one month.

[7] Survey instrument available on request.

in the R statistical programming language generated distances between the angler's origin zipcode centroids and the Berkeley marina area zipcode (94710).

Typically, we expect that as distance, and therefore cost, increases, visit frequency decreases.[8] Table 1. summarizes distance travelled and visitation frequency by town of origin, with Berkeley first and then

Figure 3: Fishing in south basin on windy day

Photo credit: *D. Fielder, 2022*

ordered by increasing distance. The list underscores that the Berkeley shoreline attracts fishermen from all over northern California, and we observe the expected trend of shorter distance with higher visitation rates. Average shoreline angling visits per year are 36.5 with a median of 24. To determine if an angler's current visitation pattern is representative of continued behavior, we asked how many times they expect to visit in the next twelve months. This average is 34.11, not statistically different from current visitation. With the hypothetical introduction of the pier, visits per year on average increase by about 74%, to 63.55 with a median of 52. All variables exhibit wide variation, as seen by the large standard deviations. Figure 4 show the distribution of fishers by their stated visitation rates per year.

[8] It is not unheard of that visits increase with travel costs in certain circumstances. In a study in Nepal, more faraway visitors came more often with the conservation of a particular national park (Lamsal et al. 2016).

Table 1: Visitation Data by town of origin

		Distance		Current Visits per year		Expected Visits in next year		Visits with Pier	
Origin	Count	Mean	SD	Mean	SD	Mean	SD	Mean	SD
BERKELEY	21	2.42	1.11	45.05	38.72	62.09	52.10	84.40	59.82
ALBANY	1	1.76	NA	52.00	NA	NA	NA	NA	NA
EL CERRITO	1	2.81	NA	1.00	NA	1.00	NA	24.00	NA
EMERYVILLE	3	2.97	0.00	86.67	60.04	52.00	NA	52.00	NA
EL SOBRANTE	3	5.93	0.00	42.67	53.12	54.67	46.36	59.00	41.61
RICHMOND	13	6.71	3.16	63.15	53.57	73.67	57.53	86.86	63.81
SAN PABLO	1	7.66	NA	60.00	NA	NA	NA	NA	NA
ALAMEDA	5	7.75	1.48	21.00	20.68	26.00	20.08	62.50	48.48
OAKLAND	38	7.80	2.59	49.61	65.46	44.92	38.70	84.38	79.90
PINOLE	2	8.44	0.00	10.50	2.12	9.00	NA	24.00	NA
HERCULES	2	10.20	0.00	12.50	16.26	4.00	NA	8.00	NA
SF-BAYVIEW	1	10.39	NA	12.00	NA	NA	NA	NA	NA
SAN FRANCISCO	4	10.68	1.31	43.00	54.06	15.00	12.73	28.50	33.23
RODEO	3	11.87	0.00	36.67	58.35	7.50	3.54	56.67	49.08
SAN LEANDRO	3	13.75	1.80	13.00	19.92	2.00	0.00	78.00	36.77
SAN LORENZO	1	16.07	NA	19.00	NA	19.00	NA	30.00	NA
CASTRO VALLEY	1	16.29	NA	12.00	NA	12.00	NA	24.00	NA
VALLEJO	5	18.24	1.17	88.80	102.87	52.20	49.77	138.60	94.13
HAYWARD	5	18.53	3.41	33.40	20.17	31.50	15.00	65.00	26.00
CONCORD	1	19.91	NA	1.00	NA	NA	NA	NA	NA
SAN RAMON	2	22.65	0.00	13.50	14.85	3.00	NA	6.00	NA
PITTSBURG	4	24.12	0.00	38.50	15.61	38.50	15.61	51.00	2.00
FREMONT	1	27.12	NA	24.00	NA	NA	NA	NA	NA
ANTIOCH	2	28.75	0.00	30.00	0.00	25.00	7.07	30.00	0.00
FAIRFIELD	2	32.40	0.00	26.50	36.06	4.00	NA	12.00	NA
LIVERMORE	2	33.71	0.00	30.50	41.72	60.00	NA	60.00	50.91
TRAVIS AIRFORCE BASE	1	34.63	NA	1.00	NA	NA	NA	20.00	NA
BRENTWOOD	1	35.21	NA	24.00	NA	NA	NA	NA	NA
OAKLEY	2	35.21	0.00	5.00	5.66	9.00	4.24	15.00	4.24
TRACY	1	40.59	NA	3.00	NA	2.00	NA	12.00	NA
VACAVILLE	2	41.56	1.82	27.00	35.36	27.00	35.36	67.00	89.10
SANTA ROSA	1	50.48	NA	2.00	NA	2.00	NA	52.00	NA
LODI	1	52.15	NA	1.00	NA	12.00	NA	24.00	NA
SAN JOSE	7	52.69	17.51	19.57	16.37	15.00	6.00	47.00	40.84
STOCKTON	2	53.87	0.00	2.00	1.41	24.00	NA	52.00	NA
SACRAMENTO	17	69.02	5.77	12.00	13.73	11.79	14.21	37.67	50.01
MODESTO	1	74.69	NA	1.00	NA	12.00	NA	18.00	NA
CLEAR LAKE	1	77.96	NA	24.00	NA	NA	NA	NA	NA
LAKE COUNTY	1	77.96	NA	5.00	NA	NA	NA	NA	NA
ROCKLIN	1	86.33	NA	1.00	NA	12.00	NA	12.00	NA
ATWATER	1	99.69	NA	24.00	NA	NA	NA	NA	NA
SONORA	1	104.72	NA	12.00	NA	36.00	NA	36.00	NA
PLACERVILLE	1	112.89	NA	12.00	NA	12.00	NA	24.00	NA
Total	**169**	**23.22**	**25.81**	**36.52**	**47.85**	**34.11**	**37.16**	**63.55**	**61.07**

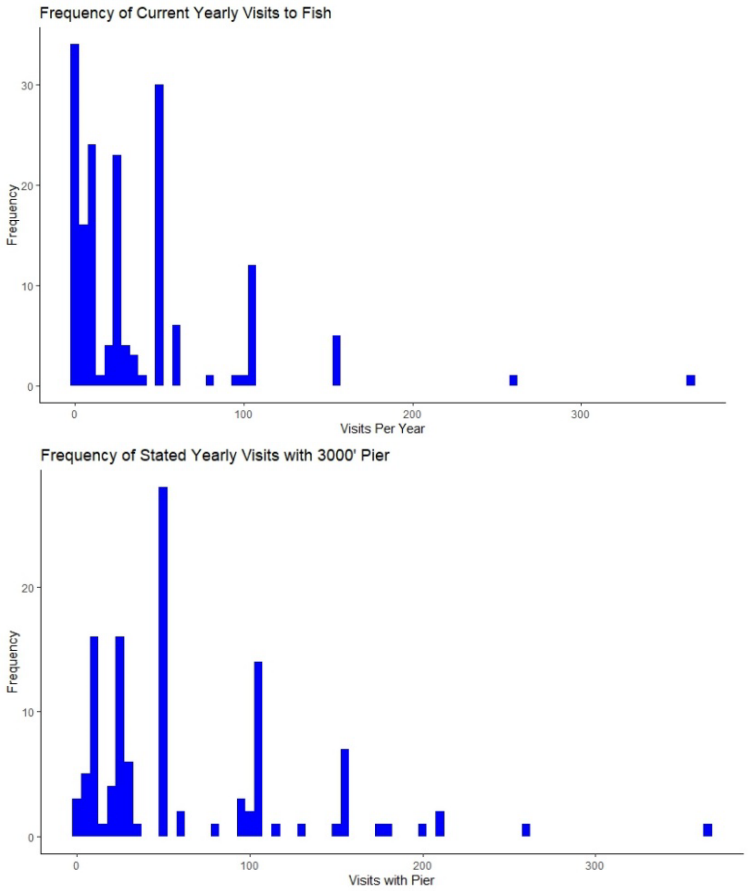


Figure 4: Distribution of yearly visits: current (top) and with a 3000' pier (bottom)

The Bay Area hosts numerous public fishing piers. Among our sample, Richmond, Alameda and Oakland are the most frequently cited alternative pier fishing spots. Besides those listed in the table, about 38% noted still other piers, such as Crockett (Eckley), Pacifica, Tracy, Oyster Point, and San Pablo. Despite its proximity to Berkeley, the Emeryville pier was cited with lower frequency as a fishing spot, possibly indicating that if given the choice to travel approximately the same distance, a fisher would choose the Berkeley shoreline over the Emeryville pier.

Table 2: Public piers sites visited by anglers

Pier Name	Count*	%*
Richmond	51	30.2%
Alameda	46	27.2%
Oakland	40	23.7%
Pinole	40	23.7%
Antioch	37	21.9%
San Leandro	29	17.2%
Pittsburg	25	14.8%
Emeryville	21	12.4%
Other	64	37.9%
*Multiple responses allowed		

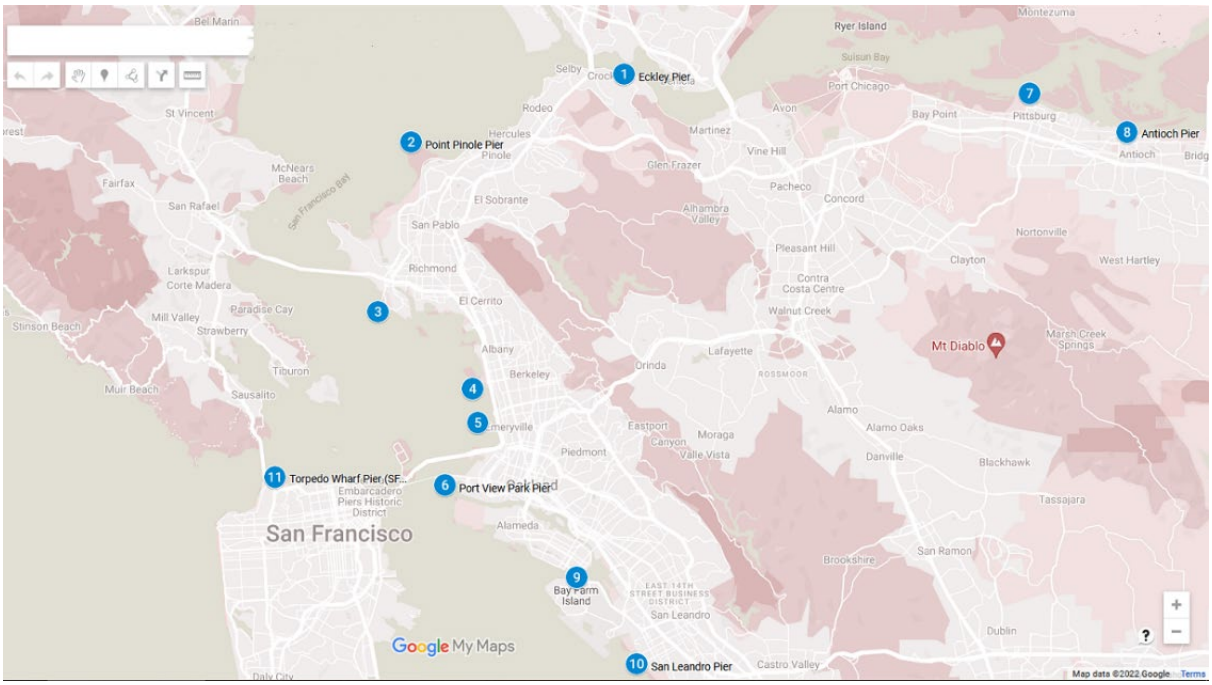


Figure 5: Other public piers frequented by Berkeley shoreline anglers

1. Eckley Pier
2. Point Pinole Pier
3. Pt. Richmond Pier
4. Berkeley Pier
5. Emeryville Pier
6. Point View Park Pier
7. Pittsburg Pier
8. Antioch Pier
9. Veteran's Pier
10. San Leandro Pier
11. Torpedo Wharf Pier

Table 3 pulls data associated with the top three most cited public fishing piers visited by the Berkeley anglers. Those that frequent Berkeley most often now and with any pier reopening visit Alameda's Veteran's fishing pier. Respondents who fish at Richmond's Ferry Point pier would come to Berkeley on average 69% more often with a new pier, suggesting that Berkeley may still be preferred for the majority of these fishermen. This is interesting when comparing to Oakland's Port View Park anglers, where respondents on average would only plan 36% more visits per year with a pier. Explanations could possibly be differences in fishing attributes at these other sites (e.g. catch rate, facilities, length of pier) but would require further study.

Table 3: Berkeley visits by anglers citing top three public pier fishing spots

		Average Distance Traveled to Berkeley		Current Visits per Year		Expected Future Visits per Year		Visits per Year w/ Pier	
Public Pier	Count*	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Oakland	40	14.94	15.08	50.10	72.36	34.57	32.46	68.33	60.82
Alameda	46	15.19	18.97	57.50	72.19	43.81	43.68	92.80	79.89
Richmond	51	16.48	17.21	45.41	48.65	37.15	39.23	76.67	75.87

*Multiple responses allowed. *Source:* Survey data.

Despite the large number of substitute sites, about 57% of survey respondents said they prefer Berkeley (Table 4). On average, fishermen who prefer Berkeley travel less distance and visit 45% more than those who do not. Many commented that their favorite spot depended on the season and catch rate at any given time. Some said Berkeley would be their favorite spot if the pier reopened. Almost all

interviewed had a license, fish from boats to get to deeper water and visit other shoreline angling spots, including lakes and rivers.

Table 4: Angler Visitation Data by Preference of Berkeley Pier

Prefer Berkeley Pier	Count	Distance Traveled		Current Visits per Year		Expected Visits per Year		Visits per Year w/ Pier	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
YES	97	20.60	22.69	43.00	49.86	40.80	38.45	70.16	63.17
NO	63	24.67	28.19	29.60	46.12	27.18	35.14	53.59	58.23
NA	9	41.37	34.33	14.33	17.99	10.00	10.46	81.80	58.39
Total	**169**	**23.22**	**25.81**	**36.52**	**47.85**	**34.11**	**37.16**	**63.55**	**61.07**

Pre-covid visits

The onset of COVID-19 pandemic caused a behavioral shift for many, during which a large proportion of the Bay Area population began seeking leisure outdoors. Looking to the anglers visiting the pier, 75% of respondents have visited the pier prior to the pandemic while 24% of respondents' first visits to the pier were after the pandemic. While this indicates that a good majority of anglers are repeats, a sizeable new crop is making an appearance.

Table 5: Pre-covid visitation

Response	Count	%
Yes	126	75%
No	41	24%
NA	2	1%
Total	**169**	**100%**

Motivation to fish

Table 6: Reasons for Fishing

Income Level	Count*	Percentage	Travel Cost		Current Visits per Year	
			Mean	SD	Mean	SD
Pleasure	160	95%	29.16	32.40	33.94	40.27
Food	92	54%	34.39	34.43	38.59	56.02
Bait	18	11%	29.13	27.69	54.64	67.19
Other	18	5%	27.35	30.03	50.33	44.54
Total	**169**		**28.74**	**31.94**	**36.53**	**47.85**

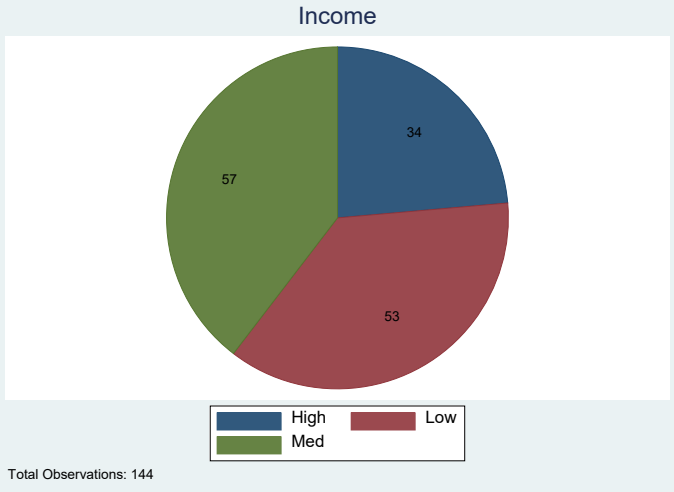
*Multiple responses allowed. *Source:* Survey data.

Almost all respondents said they fished for pleasure, while those who fished for food traveled furthest and, therefore, had the highest travel cost. Interestingly, those citing "bait" as a reason to catch fish have the highest average of current visits of about 55 per year but fishing for food or bait draws visits per year more than just pleasure fishing.

Socioeconomic profiles

One of the project goals is to understand the socioeconomic diversity of Berkeley shoreline fishers. Studies focusing on ethnic background include Poe et al (2015), Stevenson et al (2012), Quimby et al. (2020), and Bowker and Leeworthy (1998). Other fishing surveys have focused on consumption and health concerns (Burger 2013, Mazzillo et al. 2010, SFEI 2000). At the end of this study's survey, respondents answered only two socioeconomic questions, one on racial/ethnic background and one on income levels. The racial/ethnic background categories followed the standard US Census categories with an additional "mixed" category if the person stated more than one origin.[9] For income levels, we sought only broad categories of $50k/year, between $50,000 and $90,000/year and over $90,000. Results are summarized below.

Figure 6: Striped bass caught by survey respondent



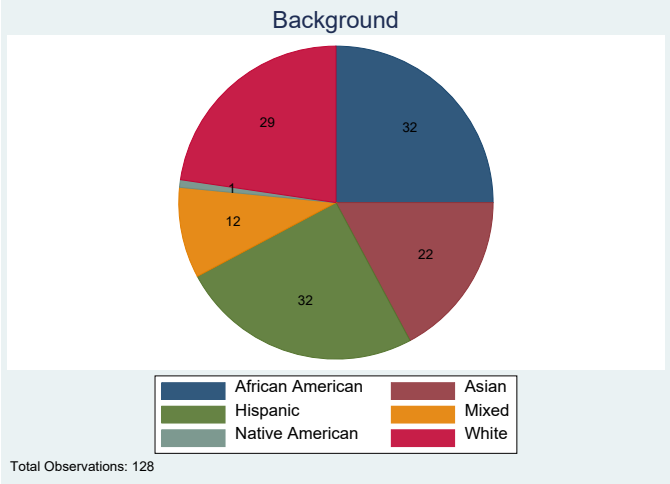


Figure 7: Survey income and race/ethnicity breakdown

A striking result is the relative balance of racial/ethnic backgrounds among the sample as compared to the general Berkeley population, who predominantly identify as white (Table 7), according to Census data which we aggregate from all zipcodes in Berkeley. Shoreline fishing draws underrepresented groups from both within Berkeley and the region, making this activity a recreational water sport for a racially diverse population.

[9] Categories were: Black or African American, white, Hispanic, Asian, Native American or Alaska Native, Native Hawaiian or Other Pacific Islander, and other. Interviewers first asked the question, often noting that one purpose of survey was to understand the diversity of backgrounds who visit the area. If the respondent was unsure of the question, interviewers could show or read the categories from the survey to pick.

Table 7: Sample v. Berkeley racial/ethnic background

	Sample		Berkeley Population	
Category	Count	%	Count	%
Black or Af. Amer.	32	25.00%	10600	7.04%
Asian	22	17.19%	32833	21.80%
Hispanic	32	25.00%	14505	9.63%
Mixed	12	9.38%	13302	8.83%
Native American	1	0.78%	905	0.60%
White	29	22.66%	86804	57.63%
Total	**128**	**100%**	**150616**	*

Sources: Survey data, U.S. Census Bureau, ACS, 2016-2020a

Of the groups for which race/ethnic background data is available (surveys from March 2022 onward, and other than the one observation for Native Americans), Black/African Americans visit most often, followed by Hispanics, who would visit most often with a pier. Black/African American fishers live the closest and Asians the furthest, on average.

Table 8: Visits by racial/ethnic background

	Travel Cost			Current Visits per Year			Future Visits per Year			Visits per Year w/ Pier		
Background	Mean	SD	Count	Mean	SD	Count	Mean	SD	Count	Mean	SD	Count
Black/AfAmer	16.53	24.56	32	41.65	40.25	31	36.58	36.75	20	62.13	51.81	23
Asian	36.47	33.70	22	17.43	19.79	22	16.18	14.24	17	40.18	30.66	17
Hispanic	32.34	29.05	32	38.44	41.75	32	40.12	44.78	26	76.52	76.15	29
Mixed	33.17	40.36	12	30.67	35.11	12	27.00	27.53	12	48.75	37.62	12
NA*	27.87	30.02	41	47.78	73.40	41	60.65	46.89	10	130.00	71.11	12
NatAmer	41.72	0.00	1	60.00	0.00	1	60.00	0.00	1	96.00	0.00	1
White	31.33	38.53	29	29.14	30.33	29	29.36	34.63	22	39.66	44.31	25
Total	**28.74**	**31.94**	**169**	**36.53**	**47.85**	**168**	**34.13**	**37.15**	**108**	**63.56**	**61.06**	**119**

Source: Survey data. *Early versions of survey prior to March 2022 did not collect racial/ethnic data.

This diverse pattern repeats for income. The income brackets used in the survey do not exactly match Census categories but the similarity allows comparison. Whereas about half of Berkeley residents earn above $100,000/year, about 76% of the Berkeley anglers earn less than $90,000/year.

Table 9: Sample v. Berkeley population, by income

	Sample		Berkeley Population	
Income Bracket	Count	Percentage	Count	Percentage
$90k+	34	23.61%		
$100k+			27692	49.02%
$50k-$90k	57	39.58%	12144	21.49%
< $50k	53	36.81%	16685	29.53%
Total	**144**	**100%**	**56521**	**100%**

Source: Survey data; U.S. Census Bureau, ACS, 2016-2020b

Summarizing travel costs by income categories, we see that on average, "high" income anglers ($90k+) have the highest travel cost and report lower visitation rates. This relationship coincides with general economic theory that states that as price goes up, quantity demanded goes down, a trend that should persist even as one's income rises. The medium and low income categories are on average traveling a shorter distance to the waterfront and have higher current visitation rates. However, note the large standard deviations (SD), mostly greater than the average itself for each statistic, which indicate major variations within each income category. Our econometric tests will further explore these relationships.

Table 10: Costs and visits by income category

Income Bracket	Count	Travel Cost Mean	Travel Cost SD	Current Visits per Year Mean	Current Visits per Year SD	Visits per Year w/ Pier Mean	Visits per Year w/ Pier SD	Visits per Year w/ Pier Count
High	34	31.74	37.54	32.46	50.13	53.16	58.53	29
Med	57	28.47	29.88	34.07	41.09	63.97	65.68	48
Low	53	28.93	31.92	35.65	32.09	68.59	58.58	40
Total	**144**	**29.41**	**31.94**	**34.26**	**40.26**	**62.87**	**61.35**	**117**

Source: Survey data

Variations by distance

Numerous travel costs studies (e.g. Blackwell et al. 2007 for Australian beaches, Zambrano et al. 2018 for Ecuadorian beaches, Grilli et al. 2018 for salmon fishing in Ireland) distinguish visitors by distance travelled, though often the scale considers domestic versus international visitors. Consumer surplus can differ significantly between these groups. For example, consumer surplus was found to be $9.62 per visit for domestic visitors to an Ecuadorian beach but $26 per visit for international visitors, for an average of $16.96. Given concerns for funding at local, county and state level in the Berkeley waterfront policymaking process, we sought to understand more deeply the pattern of usage geographically, even if anglers are predominantly in-state visitors. The data so far strongly underscore the regionality of the Berkeley waterfront area. However, for the sake of convenience, we define "local" as being less than or equal to the median distance of 10.5 miles for the n=169 observations. Locals thus defined currently visit Berkeley about twice as often as non-locals. However, the gap closes to just 15% more frequent visits among locals per year if a pier reopened in Berkeley.

Table 11: Angler Visitation Data by Visitor Group

Group	Count	Travel Cost Mean	Travel Cost SD	Current Visits per Year Mean	Current Visits per Year SD	Expected Visits per Year Mean	Expected Visits per Year SD	Visits per Year w/ Pier Mean	Visits per Year w/ Pier SD
"local"	85	$6.94	3.34	47.86	53.55	44.06	41.78	68.55	56.32
"nonlocal"	84	$50.74	32.86	24.90	38.17	26.44	31.42	59.53	64.78
Total	**169**	**28.74**	**31.94**	**36.52**	**47.85**	**34.11**	**37.16**	**63.55**	**61.07**

Source: Survey data

We next distinguish how income plays a role in this split in the sample. The tendency is that low income "locals" have the highest current visit rate, followed by medium then high, although travel costs are

similar between high and low income groups. Low income locals consistently plan the highest average number of future visits over the coming year and with a pier. Nevertheless, this pattern flips whereby high-income "non-locals" have the highest number of current visits, followed by medium, then low. For upcoming visits and visits with a pier, the medium income group has the highest average frequency among non-locals, though, again, with much variation.

Table 12: Income by Locals vs Non-Locals

	LOCALS								
Income Group	Count	Travel Cost		Current Visits per Year		Expected Future Visits per Year		Visits per Year w/ Pier	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
High	14	$5.06	$3.43	39.29	33.12	42.90	35.76	59.09	57.56
Med	29	$7.65	$3.59	43.52	44.21	36.21	42.44	60.61	47.78
Low	25	$5.67	$2.53	48.16	34.96	54.71	45.32	82.50	66.15
NA	17	$9.47	$2.22	61.88	92.74	24.00	NA	104.00	NA
Total	85	$7.01	$3.38	47.86	53.55	44.06	41.78	68.55	56.32

	NON-LOCALS								
Income Group	Count	Travel Cost		Current Visits per Year		Expected Future Visits per Year		Visits per Year w/ Pier	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
High	20	$50.42	$39.34	27.65	59.64	21.39	30.95	49.50	60.49
Med	28	$50.02	$29.86	24.25	35.78	30.43	37.54	67.04	79.61
Low	28	$49.69	$31.76	24.07	24.53	27.68	24.13	57.18	50.30
NA	8	$57.70	$34.79	23.13	14.40	2.00	NA	104.00	NA
Total	84	$50.74	$32.86	24.90	38.17	26.44	31.42	59.53	64.78

Splitting locals/nonlocals by racial or ethnic background, the table below shows that travel costs are highest for Hispanics among the "locals" even though (disregarding NAs) their visitation rate is the highest, indicating that Hispanics are most likely coming from outside of Berkeley and possibly Oakland. The largest count among the local category are Black/African Americans who have the lowest travel costs, while local Asians visit least frequently.

For non-locals, the largest count is Hispanics, the highest average travel costs is among whites, who also visit least on average as a racial group. Non-local Black/African American have the lowest travel costs and visit the most, with non-local Hispanics showing a marked increase in visitation with a pier. Overall, these patterns indicate that the waterfront is a major hub for fishermen of African American and Hispanic descent - locals and non-locals alike.

Table 13: Race/ethnicity by Locals vs Non-Locals

LOCALS									
		Travel Cost		Current Visits per Year		Expected Future Visits per Year		Visits per Year w/ Pier	
Race	Count*	Mean	SD	Mean	SD	Mean	SD	Mean	SD
AfAmer	20	$5.05	$3.91	45.30	42.42	41.36	41.76	68.31	62.17
Asian	8	$7.10	$3.82	23.00	25.24	16.50	19.20	49.86	41.44
Hisp	12	$8.40	$2.72	59.75	43.17	65.67	47.83	90.70	51.10
Mixed	5	$6.30	$3.04	48.00	48.56	34.60	40.18	70.60	48.68
NA	22	$8.56	$2.73	57.68	83.30	60.25	50.65	128.50	75.23
NatAmer	0	NA	NA	NA	NA	NA	NA	NA	NA
White	18	$6.51	$2.80	41.78	31.63	42.67	40.69	44.43	46.74
Total	85	$7.01	$3.38	47.86	53.55	44.06	41.78	68.55	56.32

NON-LOCALS									
		Travel Cost		Current Visits per Year		Expected Future Visits per Year		Visits per Year w/ Pier	
Race	Count*	Mean	SD	Mean	SD	Mean	SD	Mean	SD
AfAmer	12	$35.66	$32.17	35.00	36.95	30.67	30.97	54.10	35.80
Asian	14	$53.26	$31.50	14.21	16.14	16.00	11.83	33.40	20.05
Hisp	20	$46.71	$28.16	25.60	36.18	26.53	37.81	69.00	86.90
Mixed	7	$52.37	$44.15	18.29	16.07	21.57	15.19	33.14	18.25
NA	19	$50.23	$31.78	36.32	60.14	60.83	49.28	130.75	74.29
NatAmer	1	$41.72	NA	60.00	NA	60.00	NA	96.00	NA
White	11	$71.96	$34.90	8.45	10.76	13.40	15.99	33.55	42.44
Total	84	$50.74	$32.86	24.90	38.17	26.44	31.42	59.53	64.78

*Twenty-two observations missing from "locals" and 19 from non-locals, as this information was not collected in earlier versions of survey. These are recorded as NA. Results for NAs are generally an average and within range of all groups combined.

Willingness to contribute to pier maintenance

After respondents were asked how often they would visit to fish with a renovated ~3000 ft. pier and general walkway improvements in immediate vicinity, we asked them to state whether they would be willing to pay and, if so, up to how much per day for parking and still visit the stated number of visits with the pier. The responses range from zero to $20, with an average of $4.85.

Comparing across socioeconomic backgrounds by income levels and background, we have the following results. It is often expected that a willingness-to-pay figure will increase with income levels but t-tests and analysis-of-variance tests yielded no statistical differences in averages by income level. For the set of observations where we have racial/ethnic background information, Black/African Americans have the largest willingness to pay for parking per visit, and Hispanics the lowest.

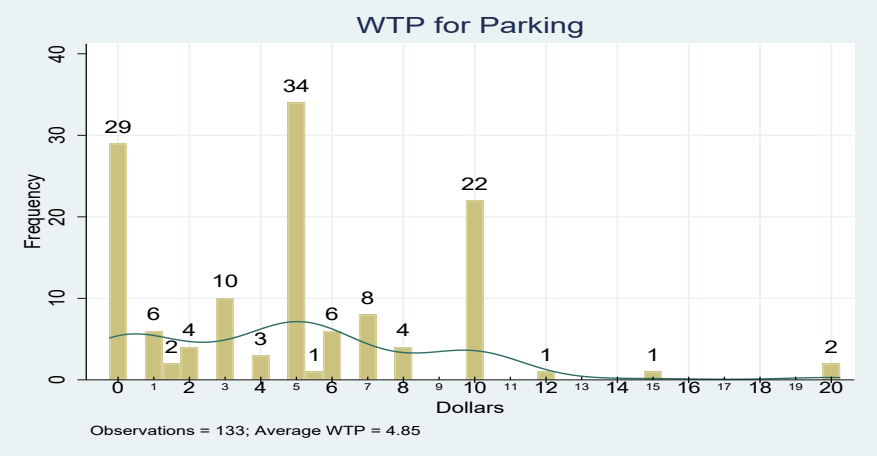


Figure 8: Distribution of willingness to pay responses for daily parking rate with pier and quality improvements

Table 14: Average WTP with pier by background

Background	Count	Percentage	Mean	SD
Black/Af. American	27	25.71%	$6.04	4.88
Asian	17	16.19%	$5.38	4.95
Hispanic	25	23.81%	$3.50	2.77
Mixed	11	10.48%	$4.91	3.73
White	25	23.81%	$4.78	3.16
Total	**105**	**100%**	**$4.91**	**4.00**

Source: Survey data

Open-ended responses

Ferry terminal and fishing activity comments

The last waterfront-related question concerned the current ferry proposal which envisions a shortened pier and ferry docking space along the current footprint of the pier out to about 600 feet. The city has suggested a design with a straight pier and breakwater (see image), and the proposal is under review. At this point in the survey, interviewers showed a graphic of this design to the respondent, making clear that this was only a proposal. They were then asked if they foresaw any potential conflicts between a ferry service at that site and fishing. About 54% cited potential conflicts, where leading concerns were congestion and "scaring fish" away from the area. About 43% responded that they did not see any conflicts but this group tended to elaborate less on their responses. This could be for several reasons. First, they may have felt that a "no" was self-explanatory, with little further exposition needed. Second, since was the last of the main survey questions, they could have become eager to end the interview. Third, they may not have understood the question well enough to elaborate their answer.

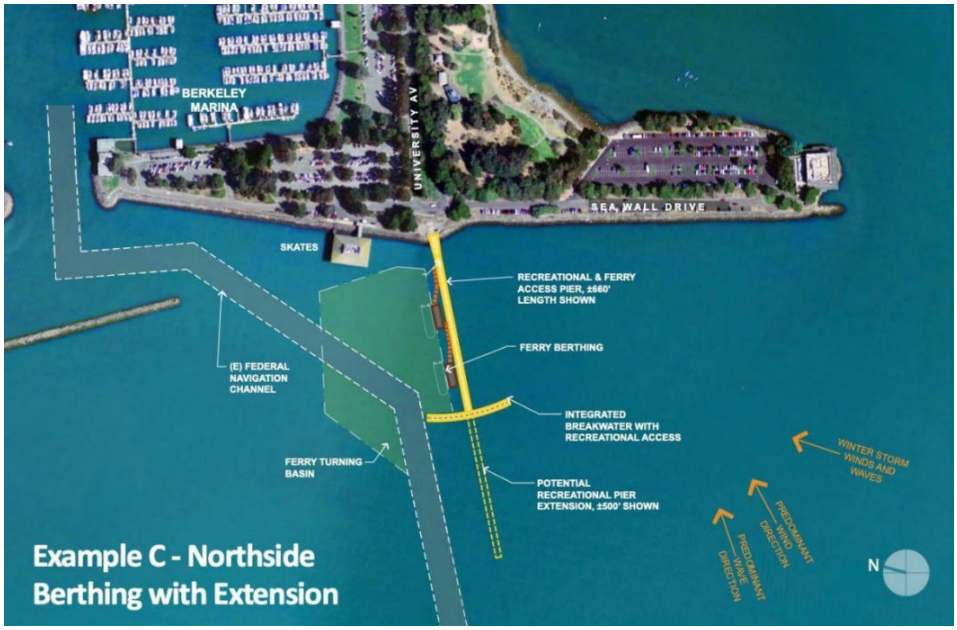


Figure 9: City of Berkeley proposal for pier/ferry terminal construction (COB-WETA 2021a.)

General comments

Many respondents were self-described "die-hard" fishermen, sometimes noting use of FishBrain app (CA25, MB3), with a long history of coming to the Berkeley waterfront, many all their life (CA38). Parents of one fisher were among the first liveaboards in the Berkeley marina (MB7). Most expressed excitement about plans to improve the area (e.g. restrooms, safety, cleanliness), and appreciated that it was not expensive to visit here. As one respondent noted, "it's a nice place for a broke man" (CA23). We frequently encountered fishers who brought grills to cook with a group of family members or friends. Some stated that COVID had been hard on their income and that this was a good place for fishing to

Table 15: Fishing-Ferry Conflicts

Ferry Conflict	Concern	%
No	**None**	**43%**
Undecided	**Undecided**	**2%**
Yes	Congestion	22%
Yes	Other	1%
Yes	Regulation & Safety	13%
Yes	Scaring fish	19%
Yes Total		**54%**
Total		**100%**

supplement their food. Fishing at this spot also served as a safe outdoor activity during the pandemic (IB15). In fact, informal conversations with the local bait shop owner confirmed a marked increase in business during the pandemic.

By far, many interviewees were particularly animated regarding the pier. In fact, the conversation often took off with people asking when the pier would be reopened. For them, the pier held an important place in their lives. Many said fishing was a part of the family culture (e.g. CA37) and had learned to fish on the pier as a child, confirming our summary data that most fished here pre-covid and stated Berkeley as their favorite spot. One group said it would be their favorite spot if the pier reopened (CA42-45). In their view, the pier "brought millions in revenue from fishermen" (AK6). One man in a retired group of fishermen lamented the pier closing, recalling how his mother had babysat the future Vice President Kamala Harris and had brought her for walks on the pier, along with many other parents (AU7). A few people were concerned that reopening the pier would lead to crowds. One noted that when the pier closed, other piers became crowded (MJO1). One stated he was outright "pissed" that the pier is closed (CA44) while another said that the pier would bring the community together (MP10).

Anglers pointed out that fishing along the riprap was dangerous and that they would welcome any kind of improvement to the fishing spot. Fishers described how they had to climb over rocks to collect their catch, or bait hooks would snag and be lost, prompting one fisherman to be concerned about lead pollution in water for wildlife and humans.

Figure 10: Berkeley pier prior to closing

Photo credit: P. Kamen

Visitation

We calculated an estimate of annual visitation rates for anglers in a similar manner as planning on-site survey visits. In addition to counting all anglers during each visit, researchers would visit the shoreline during daylight hours at high tide randomly on both weekends and weekdays to tally anglers from January to June. These tallies were extrapolated to the whole year using EPA's approach for calculating number of weekdays and weekends each month per year (EPA 2022). With this methodology, we arrive at a total of 1471 anglers per year.

5. What are the values of Berkeley waterfront fishing?

The summary data describes fishers frequenting the Berkeley waterfront and their fishing patterns. Can we use this data to put a monetary value on one of these fishing trips and for the angler group as a whole? Environmental economists have developed a technique called the travel cost method to do exactly that, so that resulting values can offer comparisons across alternative use options as well as value changes in quality of a site, in our case, the reconstruction of a public pier.

The travel cost method is rooted in the assumption that travel costs represent the "price" paid by individuals to access a recreational site, as an entry fee is often zero or represents a small portion of the visit cost. With this assumption, a demand curve depicting the price-quantity relationship can be estimated. Once a demand curve is specified, we can extract other useful information, like "consumer surplus," which measures consumer benefits *net* of the "price" paid for a good or service. Increasing values of consumer surplus signify increasing benefits.

We follow standard practice in applying an individual travel cost model (ITCM) to our sample data (e.g., Zambrano et al., 2018). The econometric model generates parameters for calculating consumer surplus per trip.[10] We do this across three visitation variables: number of times the fisher claimed to visit currently per year, the number of expected visits in the next 12 months, and finally, the expected number of visits should a pier reopen and minor improvements made. Note that the first visit variable is based on observed behavior, while expected trips in the next 12 months and with a pier have a hypothetical nature to them. Effort is made in the survey to ground the interviewee as much as possible in the scenarios to elicit realistic responses.

Explanatory variables for predicting visitation are listed in the table below. Just like price for a market good, we expect that as travel cost increases, the number of visits will decrease. We normally expect to see demand increase with income and as the cost of substitutes, like alternative recreational fishing spots, increases.

[10] Best practice is to apply the negative binomial regression model. The negative binomial model describes the probabilities that whole number counts greater than or equal to zero occur. The negative binomial model includes an additional parameter above the base Poisson distribution which adjusts the variance independently from the mean, accounting for "overdispersion". Due to the nature of data collection, current visits consist of a count of one or above. In contrast, if data collection is done via mail or email, it would then be feasible for zero values to exist. The zero truncated negative binomial model accounts for the minimum value of one for the dependent variable, and is applied here. Further adjustments for bias are discussed in the conclusion.

Table 16: Model variables and predicted sign

Variable	Meaning	Expected impact on # visits
Travel cost	$.6188 of round trip distance from home zipcode centroid to Berkeley waterfront zipcode ()	Negative
Alternative cost	$.6188 of round trip distance from home zipcode centroid to nearest public fishing pier zipcode[11]	Positive
Income=medium	Respondent income $50k-$90k per year	Positive
Income=high	Respondent income >$100k per year	Positive
African American	Respondent identifies as Black/African American	?
Asian	Respondent identifies as Asian background	?
Hispanic	Respondent identifies as Hispanic background	?
Mixed race	Respondent identifies as more than one of Census tract race categories	?
WhiteXmedium	Respondent identifies as white and income $50k-$90k	Positive
WhiteXhigh	Respondent identifies as white and income >$100k	Positive
AAXmedium	Respondent identifies as Black/African American and income $50k-$90k	Positive
AAXhigh	Respondent identifies as Black/African American and income >$100k	Positive
AsianXmedium	Respondent identifies as Asian and income $50k-$90k	Positive
AsianXhigh	Respondent identifies as Asian and income >$100k	Positive
HispXmedium	Respondent identifies as Hispanic and income $50k-$90k	Positive
HispXhigh	Respondent identifies as Hispanic and income >$100k	Positive

We have no prior expectation on racial/ethnic categories, although within each group, we would expect visitation to increase with income. In many studies, visitation patterns across race/ethnicity are an empirical question. For example, Bowker and Leeworthy (1998) found that Hispanics have a higher frequency of visits to the Florida Keys than non-Hispanics and had more sensitivity toward price changes.

[11] Zipcodes for public fishing piers: Richmond = 94801, Point Pinole = 94806, Alameda Veteran's = 94502, Oakland Port View = 94607, Antioch = 94509, Pittsburg = 94565, San Leandro = 94577, Emeryville = 94608, San Francisco Torpedo Wharf = 94129.

Native American and mixed race observations interacted with income are not included because the small number of observations once we interact with income would deliver meaningless results. Once we run the models, we look for statistically significant effects at the 10% level or better, meaning that we can be confident (i.e. only 10% chance the effect is zero) that the variable is having a systematic effect. Therefore, an econometric model tells us more information than summary statistics. It is a way of combining the data to not only tell what patterns exist but also if those patterns are significant within an overall predictive framework.

Current and expected visits

Table 16 shows results for current and expected visits in the second and third columns, respectively. Variables which were consistently insignificant in our estimations are left out to focus on significant results, unless the variable is useful for comparison. The similarity in parameters estimates between the current and expected visits models gives us confidence that current behavior represents a continued pattern. If anything, the second model provides a better fit (as seen by lower AIC score, a goodness-of-fit-measure), possibly because respondents have "smoothed out" their expectations for the year. Across the two models, the travel cost variable is negative and significant, as expected, and reveals that if travel costs increase by $1, current visits would decrease by 2.5% (2.3% for expected visits). The alternative site cost variable has the expected positive sign but is not statistically significant in these two tests. Public fishing piers are not discouraging visits to Berkeley.

The visitation patterns across income differ in statistically significant ways. The top income group visits significantly less than the low income group on average, as seen by the negative sign on the high-income indicator. However, the pattern changes by race/ethnicity group. High income African Americans currently visit significantly *more* often than African Americans in general or the high income group in general. None of the direct race/ethnicity variables are significant on their own.

Figure 11 depicts the current visits demand generated by our data, with separate curves for each of the three income levels. Notice that Berkeley shoreline fishing demand is shifted furthest to the right for the low income group as compared to medium and high income groups, the graphical version of our regression results. This means at any given travel cost, those with low income will have a higher trip frequency.

The monetary value of trips is found by taking the reciprocal of the travel cost parameter (e.g. Haab and McConnel, 2003). For current and expected visitation patterns, consumer surplus per angler per trip is about $40 and $44, respectively. Multiplying these numbers by the predicted number of trips of 32 and 31, we have an average benefit (i.e. consumer surplus) estimate of $1280 and $1364 per year per angler.

Pier visits

The last column of Table 17 shows which factors explain visits with a pier and minor improvements. Travel cost is again negative and significant, so that if travel cost were to increase by $1, visits would decrease by 2.9%. However under this scenario, proximity to alternative fishing sites becomes a significant factor in people's decision to visit Berkeley. If travel costs to the angler's closet spot other than Berkeley were to increase by $1, visits to Berkeley would increase by 2.9%. Most importantly,

demand has shifted outward, especially at the lower levels of travel costs, as seen by looking at where the curves meet the bottom axis. Predicted number of visits per year per angler is now 56 visits. The socioeconomic mix would change as well. This increase in demand comes mainly from the "medium" income group (recall, medium income is defined in our study as between $50,000 and $90,000 per year). The low income group still visits more often than the high income group at all levels of travel cost, but the gap has narrowed and is not statistically significant. Figure 12 illustrates these results.

Table 17: Results of zero-truncated negative binomial regression models

Variable	Current visits	Expected # visits	Visits with pier
Intercept	3.94***	3.97***	3.88***
Travel cost	-.025*	-.023*	-0.029**
Alternative site cost	.013	0.02	0.029*
Income=medium	-0.11	-0.09	0.61*
Income=high	-0.87**	-0.77*	-0.21
African American			0.52
Asian			-0.09
Hispanic			1.22***
Mixed race			0.30
AAXmedium	-0.17	-0.39	-0.98^
AAXhigh	0.99^	1.04*	0.35
AsianXmedium			
AsianXhigh			
HispXmedium			-1.17*
HispXhigh			-0.41
alpha[12]	1.65*	1.01	0.66**
N	126	97	106
AIC	1092.57	848.58	1060.32
CS per trip	$40	$44	$35
Predicted mean visits	32	31	56
Total cs/angler/yr	$1280	$1302	$1680
Total cs			

Significance codes: ^ 10%, * 5%, ** 1%, *** .1%

In this model, the direct effect of race/ethnicity is highly significant for Hispanics, who would come much more often than whites. However, with a negative and significant sign on the medium-income Hispanic indicator and the negative sign on high-income Hispanic, this shift may be coming mainly from lower income Hispanics. The pattern for African Americans has also switched whereby the medium-income African American group would come less often than low-income African Americans. The high-income African American indicator is still positive but now is not significantly different than the white or low-income group in general.

[12] *alpha* is an extra parameter estimated in negative binomial models to account for overdispersion in the distribution of data, say, when the variance is significantly different than the mean. The term reported here is converted to parameter *alpha* used by Hilbe (2011). As the parameter diverges from the value 1, the more over- or underdispersion exists in the data, thus justifying use of the negative binomial over the Poisson distribution (which assumes equal mean and variance).

Consumer surplus is now $35 per trip with a reconstructed pier, implying a total of $35*56 = $1960 in net benefits per year per angler on average.

Using the overall visitation number of 1471 anglers noted earlier, we arrive at a total value of $1.88 million per year in consumer benefits currently for shoreline fishing in Berkeley, $2.01 million in benefits according to expected visitation patters over next year with location as-is, and $2.88 million a year should area improvements of a pier and better pavement materialize.

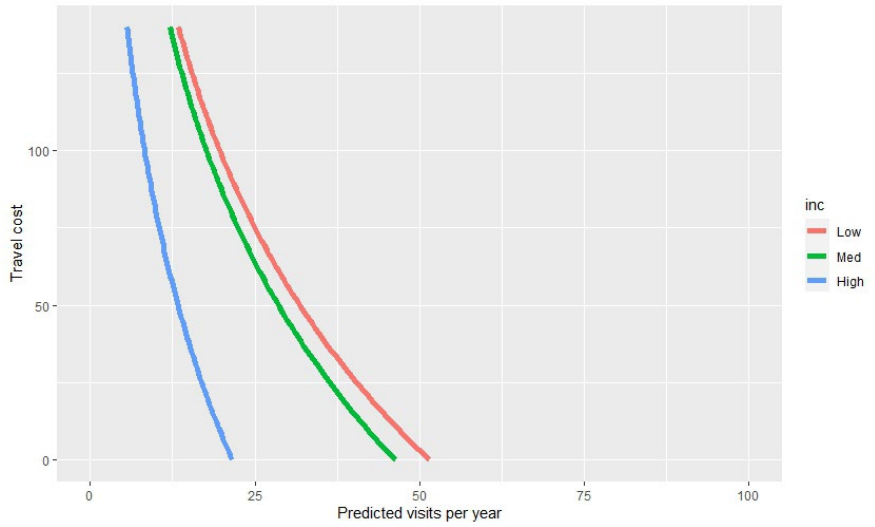


Figure 11: Demand for current visits by income level

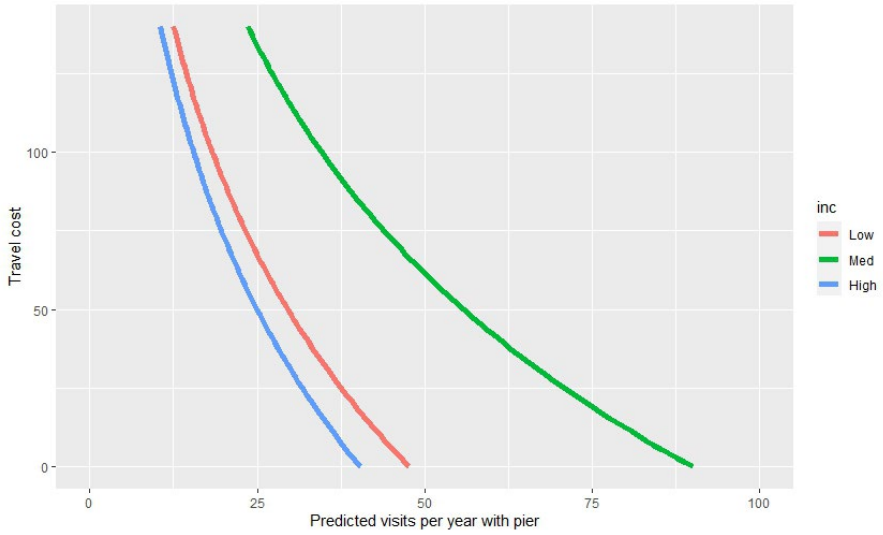


Figure 12: Demand for visits with pier, by income level

Willingness to pay

Our final regression model takes the answers to the daily parking rate and regresses that variable against travel cost, income and background information to observe any patterns in the answers. Recall that the question concerned people's willingness to pay an amount above their travel cost to visit the same number of times they said they would visit should a pier be reconstructed and minor improvements made. The regression model is a basic ordinary least squares regression that fits a linear model to the data and assumes a normal distribution. The table below reports results for three versions that progressively add explanatory variables. Travel cost to alternative sites was not significant in any model version, so this variable is not included. The constant is significant across all three model versions at the 0.1%, while travel cost is oddly positive and significant in Model 1 but then switches to being negative and significant as we add variables for race and income. As people travel further, the less they are willing to pay a daily parking rate even with the pier, regardless of income, in stark contrast to most "willingness-to-pay" studies. In Model 3, Hispanics are more willing to pay a daily parking rate with a pier; however, this model overall does not have significant predictive power, as seen by the insignificant F-statistic. Model 2 has the highest overall significance, where the predicted rate is $4.94 per day under the described changes, with travel cost lowering willingness-to-pay by 2 cents for each extra dollar of travel cost.

Table 18: Results of Ordinary Least Squares Regression for Willingness-to-Pay Predictions

	Model 1	Model 2	Model 3
Constant	4.232***	5.407***	4.414 ***
Cost	0.021 ^	-0.024 **	-0.025 *
Medium Income		0.570	0.883
High Income		0.548	0.801
Hispanic			1.87 ^
Black/African American			0.647
Asian			1.05
Mixed			0.595
Prob > F	0.050 ^	0.041 *	0.157
Observations	133	130	119
Predicted WTP	$4.85	$4.94	$5.02

Significance codes: ^ 10%, * 5%, ** 1%, *** .1%

6. Discussion and conclusion

This project conducted original data collection and survey analysis to fill an information gap in policy and research on water-related activities that attract diverse populations to the coast. The evidence here shows that shoreline fishing near the Berkeley Marina provides significant coastal access for disadvantaged communities, underrepresented groups and low-income households. Most fish for pleasure but 54% also fish to supplement their diet. Even so, lower income households were willing to pay as much for the angling experience as higher income households, which is unusual and indicative of

a highly valued activity for these groups. Preliminary results provided herein indicate that shoreline fishing near the Berkeley Marina offers valuable coastal recreational access to exactly the types of disadvantaged communities that the State of California has prioritized. Anglers visiting Berkeley primarily to fish its shoreline enjoy a net benefit of $40 per trip and visit a predicted 32 times a year on average with the area in its current state. Should a pier and minor quality improvements develop, the per trip benefit is $35 for a predicted number of 56 trips per year on average. It should also be noted that the net benefit for this (relatively poor) population is on par with studies of the nonmarket value of a day at the beach in southern California of approximately $40 (Pendleton et al. 2006) and thus reinforces related studies. Such a high benefit by members of lower income/disadvantaged communities is something that policymakers should take note of, especially given the State's stated preferences for access for all communities. Based on visitation rates estimated in this study, these results value Berkeley shoreline fishing at $1.88 million per year, and $2.88 million per year with a public fishing pier. Our survey also indicated that anglers were willing to pay a modest fee for parking, if the proceeds went to pay of about $5 for the pier and its maintenance. The data, visitation rate and value estimates, it should be reiterated, refer only to those who visit the waterfront primarily to fish. We have made no estimations regarding those who come who visit for watching sunset, engage in other water sports in area, or hikers, nor those who currently do to fish here but would if quality changes, like a pier, where to occur. In this sense, we can consider the estimates as a lower bound of the overall shoreline fishing value and a value of only one recreational use of the waterfront.

Future work will refine these estimates in various ways. First, we will adjust calculations to account for any possible bias due to "avid" fishermen in the sample, as those who fish more frequently were more likely to be interviewed. Indeed, as the survey phase progressed, we encountered fishermen who had already been surveyed and thus could not be surveyed again. Such adjustments could increase or decrease the net benefit estimates.[13] Second, we will investigate methods which account for those who currently do not visit at all but would with quality improvements. Finally, we will continue to explore hypotheses and elaborate results, such as any distinct patterns among those who fish for consumption or subsistence purposes.

Access for all to coastal resources in California is a high priority for California's state agencies. As it stands, this study reinforces peer-reviewed work on pier fishing in southern California which indicate that fishing on the coast is a valuable activity for many anglers of a low-income background. Otherwise, we know little about pier and shoreline anglers throughout California. Coastal development and sea level rise threaten many types of coastal access. As the City and State consider options for the future of Berkeley's Marina, this study can support their accounting of access for all communities and populations across the regional spread of the Bay Area.

[13] For example, in Wu et al. (2018), the stratified zero truncated negative binomial model increased net benefits by 6% over the zero-truncated model akin to one used here.

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The Owls Need a New Fence

Executive Summary

(M. Nicolaus, 09-10-2022

- The old fence seemed like a good idea in its day, when owls were many and dogs were few
- Conditions have changed: Far fewer owls, many more dogs
- Off-leash dogs easily breach the fence and invade the owl sanctuary
- Owls have been killed and injured
- The new fence will preserve an artful look while offering real security
- The amended route will keep the Open Circle viewing area open to the public year round
- The Chavez Park Conservancy will pay for the fence. It will cost the City nothing
- Construction needs to be complete by Oct. 1, as a condition of the grant.

The old fence seemed like a good idea in its day, when owls were many and dogs were few. But conditions have changed: Far fewer owls, many more dogs.

The old fence was completed in 2011 as part of the public art project entitled “Open Circle.” The work was funded by the Open Circle Foundation and produced jointly with the City of Berkeley Public Art Program.

A quarter century ago, that area was a busy winter gathering place for migratory Burrowing Owls. According to some old-timers, the owls there could be so numerous that one had to be careful not to step on one. At the time of its installation, the low-rise “Art Deco” fence seemed like a reasonable compromise between bird protection and artistic ambition.

A decade later, circumstances have changed. Owl numbers statewide dropped dramatically. Where once the owls were seen in dense numbers in our park, in recent years they have been absent or rare. None appeared in the winter of 2017-18. In the following years, only one resided in the fenced area, sometimes just for a few days.

The recent winter of 2021-2022 saw an exceptionally high population of two owls both residing for more than three months in the fenced area. Their presence generated intense public interest, with press coverage, visitors coming from throughout the region, and more than 700 Conservancy brochures distributed.

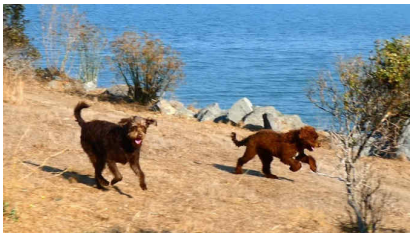
While owl numbers dropped, recent years have seen a dramatic rise in the dog population. The number of pet dogs in the U.S. stood around 78 million in 2011. It increased to 90 million in 2021 and saw a sharp rise with the spread of the pandemic.

The new reality is fewer owls, more dogs.

These historic trends have created a new situation where the old fence design no longer works.

Off-leash dogs easily breach the old fence and invade the owl sanctuary. Owls have been killed and injured.

The old fence is barely 32 inches high and the gap between its top two cables is 9 inches. There is no fence at all over areas with a concrete retaining wall. Off-leash dogs have no problem leaping over or slipping through this fence.


These pictures show a few of the incidents where off-leash dogs invaded the Burrowing Owl space. Eyewitness reports speak of many more instances, including cases where owls were present and dogs attacked the birds.


At least one owl was killed in the park. The year following this incident, no owls came to the park at all. More recently, this past February 3, the highly visible and hugely popular owl in the fenced area suffered an injury to its left wing, consistent with a dog attack. It disappeared the following day.

The Burrowing Owl is covered under the Migratory Bird Treaty Act and its California equivalent. These birds are entitled to protection not only by human decency, but by federal and state law. Parties that fail to protect them when protection would be simple and inexpensive have been sued and fined.

The new fence will preserve an artful look while offering real security. The amended route will keep the Open Circle viewing area open to the public year round.

When owls are present, the Burrowing Owl Sanctuary is a high-visibility spot with many hundreds of park visitors stopping for a view. A chain link fence would be out of place here, particularly because many of the viewers are children. The spot demands a fence that offers real security for the birds with an artful eye appeal and transparency for human viewers of all ages.

The Chavez Park Conservancy has obtained two design proposals. One is for a wrought iron fence with vertical bars of the sort seen in gardens and recreational areas. It would be four feet high with a top rail, painted black, with the vertical elements four inches apart. This is a standard kind of fence with an upscale look. See Appendix A.

The other proposal is a custom design for a horizontal cable fence, also four feet tall, with a metal top rail, and stainless steel cables running horizontally four inches apart. The steel posts and the top rail would be galvanized and powder coated any desirable color, for example forest green. See Appendix B.

Each design has particular strengths and weaknesses. Both designs bring a combination of security for the birds with an artful visual appeal and high transparency for park visitors viewing the owls.

Both designs will amend the route of the old fence on the southern end to maintain year-round public access to the Open Circle seating area. No owl has resided in the southern extremity of the sanctuary for at least eight years. There is no reason to keep it closed.

The Open Circle is the only vantage point from which Burrowing Owls on the rip-rap at the edge of their sanctuary can be viewed. It is also the prime bird viewing hotspot on the east side of the park, and a popular seating area year round. When it is closed off, the south gate is frequently overstepped and sometimes vandalized. The public’s evident desire to use the Open Circle year round can and should be accommodated.

The Chavez Park Conservancy will pay for the fence. It will cost the City nothing. But construction needs to be complete by Oct. 1, as a condition of the grant.

The two fence design quotes currently on the table are each in excess of $30,000. The vertical iron fence quote is at $33,950 and the horizontal cable fence at $32,228.

The Chavez Park Conservancy understands and is sympathetic to the City's financial issues with the Marina Fund and the City budget generally. To make this Burrowing Owl safety fence feasible for the City in this time of financial tightness, the Conservancy has obtained a commitment from a local donor who wishes to remain anonymous. As a result, the Conservancy is in a position to cover the full cost of either of the two current fence proposals.

In other words, the new owl fence will cost the City nothing. The Conservancy is not asking the City to spend money on this project. The Conservancy is bringing the money to the City.

There is one condition on the grant. Construction of the new fence has to be completed before the owls are likely to arrive for the winter. In recent years the most recent owl arrival was dated Oct. 3. To be on the safe side, construction should be completed by October 1 this year.

APPENDIX A

martin@chavezpark.org

TRI-CITY FENCE CO., INC.

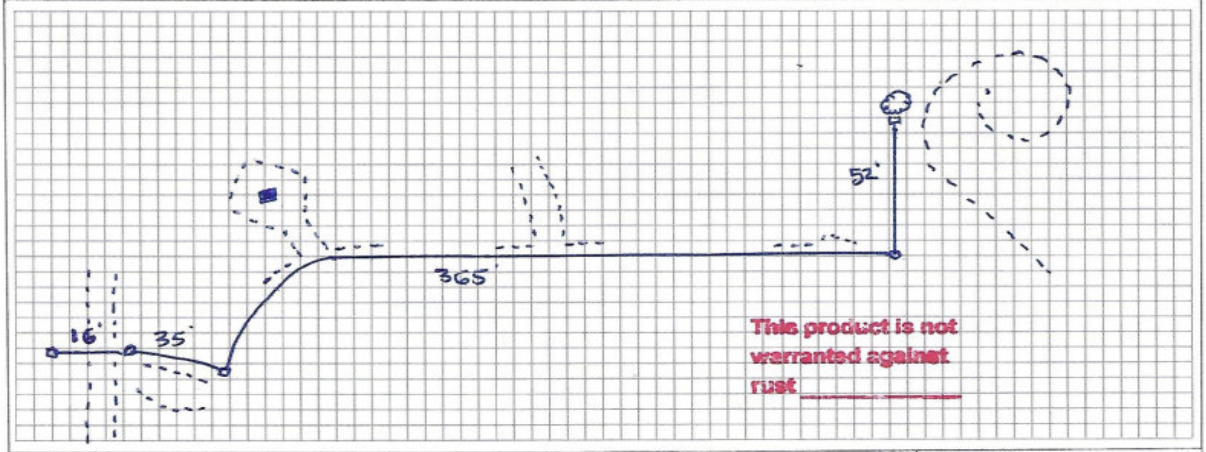
1175 Benicia Rd.
VALLEJO, CA 94591
Phone (510) 758-4954 or (707) 644-5764
Fax (707) 644-0422

47328 CONTRACTORS LIC. NO. 637245

45

MATERIAL ORDER DATE:	
VENDOR:	T.C.F. P.O. #:
POST DELIVERY DATE:	SCREEN DELIVERY DATE:
APMT#:	APMT. DATE: 5-31-22
MAS CODE:	BID DATE: 6-2-22
	SOLD DATE:
	JOB #:
	PREVIOUS BID#:

SUBMITTED TO: Chavez Park Conservancy	CONTACT: Martin Nicolaus
BILLING ADDRESS: 1342 California St	JOB NAME: Cesar Chavez Park
	JOB LOCATION: 11 Spinnaker Way
CITY, STATE, ZIP: Berkeley CA 94703	CROSS STREET: Marina Blvd
PHONE #: FAX #:	CITY, STATE: Berkeley
P.O. #: AUTHORIZED JOB SITE CONTACT:	JOB SITE PHONE NO.: JOB CONTACT PAGER/MOBILE #: 510-717-2414



SPECIAL TOOLS: Jack Hammer ☐ Core Drill ☐ Rock Drill ☐ Welder ☒ Other ☐

INSTALL: Level ☐ Straight Top ☐ Contour ☒

BARBED WIRE: # Str's | Up | Out | In

DOMESTIC ☐ IMPORTED ☐

RAZOR RIBBON BARBED TAPE ____ FTG.

TENSION WIRE: YES ☐ ____ TOP ☐ NO ☐ GAUGE BOTTOM ☐

LINE STAKE SET BY CUSTOMER	YES ☒ NO ☐
TRI-CITY TO REMOVE FENCE	Exist Cable Fence YES ☒ NO ☐
HAUL AWAY OLD FENCE	YES ☒ NO ☐
HAUL AWAY DRILLING DEBRIS	YES ☐ NO ☒
COLOR	Black
FABRIC	O/I
SLATS	
POSTS	2" SQ

USA#: EXPIRE DATE:

SPECIAL INSTRUCTIONS: Install 468 Ft of 4Ft H O/I with 3-4'x4' Single gates & 1-12'x4' Double gate. Customer To show Location For gate's. O/I Being Installed Has 1" Top & Bottom Rails & 5/8 Pickets. Option To Install Commercial Grade Panels with 1½ in Top & Bottom Rails 3/4 Pickets add $7,213.00

FENCE

FTG.	HGT.	GAUGE FABRIC	TYPE	LINE POSTS	TERMINAL POSTS	TOP RAIL	BARBS
				X	X		UP ☐ DOWN ☐
				X	X		UP ☐ DOWN ☐
				X	X		UP ☐ DOWN ☐
				X	X		UP ☐ DOWN ☐
				X	X		UP ☐ DOWN ☐

GATES

NO. SGLE	NO. DBLE	NO. ROLL	WIDTH	HEIGHT	C/L FRAME	O/I STYLE	POST SIZE
3			4	x 4		1½	2"
	1		12	x 4		1½	2½
				x			
				x			
				x			

ORNAMENTAL IRON

FTG.	HGT	POSTS	TOP RAIL	BOTTOM RAIL	PICKETS	SPACED	STYLE
468	4	2 x 2 x 6 ___GA.	1" x1" x ___GA.	1" x1" x ___GA.	5/8x 5/8x ___GA.	4.5 O.C	Lifeguard

By execution of this document, Buyer acknowledges that he has read and understands the terms and conditions set forth on the reverse and front side hereof and within any attachments.

The Buyer assumes all responsibility for all utility lines upon the Buyer's property. The Buyer shall indemnify and hold harmless Tri-City Fence from any and all damages or liabilities resulting from any cut or damaged utility lines including, but not limited to, gas, water, electric, telephone, and cable lines. Buyer agrees that if rock is encountered, a special per hole digging charge may be assessed.

NOTICE TO OWNER

Contractors are required by law to be licensed and regulated by the Contractors' State License Board. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, 3132 Bradshaw Road, Sacramento, California. Mailing address: P.O. Box 26000, Sacramento, California 95826.

FOR THE SUM OF	$ 33,950.00
4% Fuel Charge	$
	$
3% Credit Card Fee	$
DOWN PAYMENT ½	$
BALANCE DUE	$

TERMS: CASH UPON COMPLETION ☐ 30 DAYS ☐
DEPOSIT REQUIRED ☒

Submitted by Seller: _____ Date: 6-2-22

Accepted by Buyer: _____ Date: _____

Accepted by Seller: _____ Date: _____
OFFICER OF SELLER

WHITE - OFFICE COPY PINK - CUSTOMER COPY CANARY - FIELD COPY

APPENDIX B

WORK ESTIMATE

IVS Fences & Iron Work
A beautifully crafted fence does more then boost your home's curb appeal.

Ph. (510) 377-4628

Estimate: #0806
Date: June 20, 2022

Customer(s):
Martin Nicolaus
Cesar Chavez Park
Berkeley, CA. 94710
Ph. (510) 717-2414

PROJECT DESCRIPTION

This estimate is to build and install a new 450' W x 4' H ornamental fence made of 2" x 2" x 6' iron post 2" x 1" x 14G for two swing gates one of this gates will be 8' opening x 4' tall and one more of 36" opening using a 3/16 / 4.8 mm stainless steel cable making 4" of separation in between cables . Also using 2" x 1" x 11G for top rails all iron is powder coated & galvanized. .

Material: (6) 3 /16 / 4.8 mm x 1,000 stainless steel rolls (300) Luloth 3/16 stainless steel tensioner (59) 2" x 2" x 11G x 6' iron post (22) 2" x 1" x 14G x 24' iron gate frame and top rail (206) 50 lb post concrete (Hardwere) for three swing gates (Green) powder coating all will be galvanized as well.

I.V.S REMOVE THE EXISTING METAL POST AND CABLES TO THE RECYCLING PLACE

IVS Fence will perform the installation at Cesar Chavez Park. Berkeley, CA. 94710

DESCRIPTION	Qty	PRICE	TOTAL
Material	1	$17,600.00	$17,600.00
Labor	1	$13,000.00	$13,000.00
		SUBTOTAL	$30,600.00
		SALES TAX	$1,628.00
		TOTAL ESTIMATED	$32,228.00

DISCLAIMER: IVS Fences is not liable for any damages involving weather/climate changes, natural disasters etc..
Above information is not an invoice and only an estimate of services described above. This estimate is non-contractual.
We do require 15% deposit, 35% to commence the project
If you have any questions concerning this estimate, contact Ignacio V., 510.377.4628, ivsfences@gmail.com
Thank you for your business!