Meeting Overview

Project Goals

Existing Locations

Preliminary Need Analysis

Precedents

Draft Proposal

Feedback Exercises
Project Overview
Project Goal

Improve access to sanitation in the City of Berkeley

- Define sanitation for Berkeley
- Understand the need
- Assess existing public WASH facilities and access
- Recommend strategies to improve access
WASH: Water, Access, Sanitation, Hygiene
Is a basic human need and right for everyone

Toiletries
Toilet
Potable Water & Handwashing
Shower
Laundry

Project Overview
Where Does Berkeley Access WASH?

Home where we live

Work or school

Transit

Public parks, shopping, restaurants
Who/When Do We Have Less Access?

People who are unhoused or unconventionally housed

**Workers**: rideshare, bus & delivery drivers, markets

**In transit**: bus, BART, car, pedestrians

**In public**: parks, commercial zones
Why WASH For Everyone?

- Equity: sanitation is a basic human right
- It applies to everyone
- Sufficient facilities are cheaper than cleaning up
- Public health risk of insufficient sanitation
  - Hepatitis A outbreak in Southern California
  - Drivers with kidney issues
1 Community Engagement

- Organizational and individual outreach
- Focus groups with target populations
- Meetings with stakeholders
- Four public community meetings
Homeless Engagement

Organizations (1 on 1 Meetings):
- Women’s Drop-In Center
- Berkeley Drop-In Center
- BOSS
- Downtown Streets
- People’s Park Committee
- Here/There Encampment
- RV Dwellers
- Suitcase Clinic
- Friends of Adeline
- Lava Mae
- Dorothy Day House
- UC Berkeley Homeless Outreach
- Consider the Homeless
- Bay Area Landless People’s Alliance
- City of Berkeley Homeless Encampment Task Force
- UC Berkeley Basic Needs
- Berkeley Friends on Wheels
- First Congregational Church

Focus Groups Completed:
- Women’s Drop-In Center
- Downtown Streets
- Here/There Encampment

Focus Groups Planned:
- Berkeley Drop-In Center (mid Nov)
- BOSS West Berkeley Shelter
- People’s Park (mid Nov)
- Suitcase Clinic (mid Nov)

Outreach Efforts Made:
- First They Came for The Homeless
- Bonita House
- Operation Dignity
- Covenant House California (Yeah!)
- Berkeley Free Clinic
- Youth Spirit Artworks
1 Other Stakeholder Engagement

City of Berkeley:
● City Councilmembers
● Public Works
● Parks, Recreation & Waterfront
● Economic Development Team
● Homeless Encampment Task Force
● Planning
● Libraries

Other Institutions:
● BART
● AC Transit
● Lyft & Uber
● Berkeley Unified School District
● UC Berkeley
● Berkeley Community College
● Local churches
● YMCA
● Private fitness centers
● Restaurants & cafes
● Berkeley Business Districts

Focus Populations:
● Rideshare drivers (Uber, Lyft)
● Taxi drivers
● Bus drivers (ATU Local 192)
● UC Berkeley Student Government
● Berkeley Parents Network
● Friends of the Libraries
● Friends of the Parks
● Sports field users
● Farmers market visitors & workers
1 Project Timeline

- Community engagement: October & November 2019
- Draft proposal: November 2019
- Draft feedback: November 2019
- Final proposal: December 2019
Existing Public Facilities
Public Toilets

Legend
- 24 Hour Facilities
- Locked & Unstaffed
- Staffed (Centers)
- Porta-Potties
Existing Facilities

- South Cove East Parking Lot, Berkeley Marina
- 24 HR Park Toilets
- Willard Park - Porta-potty & handwashing station
- Berkeley Public Library - Main Branch
Site Visit & Service Log Reflections

- Cleanliness
- Maintenance repairs
- Durability
- Hours
- Locations
- Visibility and signage
Public Showers

Legend
- Existing Public Showers
- 24 HR Outdoor Shower
- Existing Closed Showers

Existing Facilities
Existing Public Showers

Location: James Kenney Community Center

Location: Willard Pool

Location: South Cove East Parking Lot, Berkeley Marina

Location: West Campus Swim Center

Existing Public Showers
Site Visit Reflections

Shower needs:
- More facilities
- More open hours
- More accessible locations
- More privacy at showers
What is The Need?
3 Need

Where is there need in the City?

How much need is there?

How close do toilets need to be to the need?

What makes a toilet accessible?
Data showing need

**Unhoused:**
- Homeless Encampment Hotspots
- Homeless Service Locations

**Workers:**
- AC Transit Bus Driver Layovers
- Taxi Driver Waiting Areas
- Farmers Market

**Transit:**
- Pedestrian Counts
- BART Station: Average daily weekday ridership
- Bus Stop: stops with over 500 people/day

**Public:**
- Parks
- Commercial Zones

**Other:**
- 311 Calls for open defecation and urination
- Business district hotspots for open defecation & urination
311 Calls

311 calls for open defecation & urination show that existing toilets are not meeting the need. May be a number of reasons for this: hours, accessibility, cleanliness, visibility, security, etc.
Combined dataset: Unhoused, workers, transit, and public need. Graphic indicates concentrated areas of need. Darker red indicates multiple needs in one location.
Recommendations

Yellow dots show location recommendations from various stakeholders. Recommendations match high need areas.
### How Many Toilets?

<table>
<thead>
<tr>
<th>People Per Toilet (guideline)</th>
<th>Building Code Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unhoused</strong></td>
<td>CA Plumbing &amp; International Code for campgrounds, RV parks, refugee camps, group home</td>
</tr>
<tr>
<td>1 per 15-25</td>
<td></td>
</tr>
<tr>
<td><strong>Workers</strong></td>
<td>CA Plumbing Code for farm and mobile workers</td>
</tr>
<tr>
<td>1 per 15</td>
<td></td>
</tr>
<tr>
<td><strong>Transit</strong></td>
<td>International Plumbing Code</td>
</tr>
<tr>
<td>1 per 500</td>
<td></td>
</tr>
<tr>
<td><strong>Public Areas</strong></td>
<td>CA Plumbing Code for picnic areas, beaches, sports facilities, assembly (define?)</td>
</tr>
<tr>
<td>1 per 500</td>
<td></td>
</tr>
</tbody>
</table>
## How Close Should Toilets Be?

<table>
<thead>
<tr>
<th>Category</th>
<th>Distance to Toilet (guideline)</th>
<th>Building Code Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unhoused</td>
<td>Max ⅛ mile</td>
<td>CA Plumbing &amp; International Code for campgrounds, RV parks, refugee camps, group home</td>
</tr>
<tr>
<td>Mobile Workers</td>
<td>Max ¼ mile or 10 min walk</td>
<td>CA Plumbing Code for farm and mobile workers</td>
</tr>
<tr>
<td>From Transit</td>
<td>Max ¼ mile</td>
<td>International Plumbing Code</td>
</tr>
<tr>
<td>General Public</td>
<td>Max ¼ mile</td>
<td>CA Plumbing Code for picnic areas, beaches, sports facilities, assembly (define?)</td>
</tr>
</tbody>
</table>
3 Improving Toilet Accessibility

Targeted needs

1. People with disabilities
2. Different languages
3. Parents & children
4. Various genders

Potential Improvements

- Signage on Street
  - Multiple languages
  - Gender neutral
  - Braille

- Signage on the Toilet

- Toilet size and interior spacing
  - For strollers
  - For wheelchairs
  - Toilet bars

- Sink & toilet height and access
Toilet Safety & Visibility

1. Visibility
   - High visibility
   - Sightlines through the toilet

2. Security
   - Locking door
   - Lighting inside and around

3. Safety
   - Good, regular maintenance
   - Staffing?
Toilet Cleanliness & Amenities

1. Cleanliness
2. Durable & Repairs
3. Aesthetics & Experience
4. Amenities

Potential Improvements

- Comprehensive Maintenance
- Durable but Aesthetic
- Responsive Repairs
- Handwashing & Soap
- Other amenities
  - Menstrual products
  - Needle drop box
  - Mirror
  - Hand drying
Examples from Other Cities
Portland, OR

**Population:** 650,000 people  
**City Area:** 145 sq. miles

**Public Toilets:**
- 9 in public buildings (building hrs)
- 6 Portland Loos (24/7)
- 8 in Parks (8am to midnight)

**Lessons:**
- Signage in business windows and online map
- Staffing was less effective
- Self-cleaning toilets: expensive, increased crime, vandalism, & human waste
- Pilot to open City Hall 24/7 unsuccessful
- Portland Loos cleaned once daily
San Francisco

Population: 880,000 people
City Area: 47 sq. miles

Public Toilets:
- 70 JC Decaux self-cleaning
  - Cost: Vendor pays with ads
  - 25 ADA accessible units
- 25 Pit Stop VIP mobile: staffed
  - Opened 24/7 (3 units)
  - Cost:
    - $10k/yr rental
    - $62,400/yr staff

Lessons:
- Challenges with maintenance and operations of self-cleaning toilets
- Staffing at Pit Stops: successful
- Currently piloting overnight staffing
- Include trash and needle exchange
Population: 620,000 people
City Area: 155 sq. miles

Public Toilets:
- Public buildings, parks, mobile
- Recent pilot of 2 mobile toilets

Lessons:
- Nicer toilets with running water and improved cleanliness
- Multiple users: tourists, homeless, etc.
- Staffing to prevent crime
- Temporary to inform permanent locations with data collection

Costs:
- Cost $15k/month run by a nonprofit
- Includes attendees & maintenance
San Diego

Population: 620,000 people
City Area: 372 sq. miles

Public Toilets:
- Portables and expanded park RR hours during Hep A outbreak
- About 25 public restrooms

Lessons:
- Increased 911 calls with a new Portland Loo
- Success with a homeless shelter opening their toilet 24/7
Proposal
Toolbox of Improvements for Public Toilets

- Improved Signage
- Facility Upgrades & Maintenance
- Longer Operating Hours
- Support Homeless Services
- Partner Facilities
- Custom Mobile Toilets
- Permanent Toilets
5 Signage
5

Signage

CREATIVE WAY-FINDING SIGNAGE
5 Signage
5

Upgrading Existing Facilities

Interior:
- Improved fixtures
- Improved doors/partitions
- About $5,000 upfront

Exterior:
- Signage
- Landscape: $1k upfront, $200/yr irrigation.
5 Subsidizing Partner Facilities

- TOILETS
- POTABLE WATER
- READILY AVAILABLE
- LOW CAPITAL COSTS
- SERVES DIVERSE COMMUNITIES
Custom Mobile Toilets

- TOILETS
- RAPIDLY DEPLOYABLE
- LOW CAPITAL COSTS
- MOVES ACCORDING TO NEEDS
Custom Mobile Toilets

**PLUSES:**
- Portable
- Adaptable to changing need
- Various options for aesthetics & durability
- Less upfront cost

**MINUSES:**
- More maintenance costs
- Less permanent

**Annual Cost:** ~$10k/yr rental & pumping
**Staffing Cost:** ~$62k/yr/unit
Composting Toilets

PLUSES:
- Various portable & permanent
- Various aesthetics
- Custom and catalogue options
- Sustainable
- Effective after disasters
- Less pumping costs
- Flexible to demand

MINUSES:
- New - culture shift
- Needs to be pumped out
5 More Permanent Facilities

- Toilets
- Showers
- Potable Water

- Slow to implement
- High capital costs
- Serves diverse communities
Automatic Toilets

**PLUSES:**
- Self-cleaning: reduces cleaning
- Improved aesthetics
- Several options available
- Cost covered by advertising

**MINUSES:**
- High maintenance costs
- Technical issues
- Low visibility inside
- High upfront and long-term costs
Portland Loo

**PLUSES:**
- Durable
- Easy to clean
- Affordable upfront cost
- Better sight-lines help reduce crime/camping
- Paint repels graffiti
- Blue lighting discourages drug use

**MINUSES:**
- Not successful everywhere
- Not aesthetic or fitting with surrounding context
- No sink or other amenities
- Feels less safe

**Upfront Cost:** ~$160k
**Maintenance Cost:** ~$2k/yr w.o staffing
Permanent Outdoor Facilities

PLUSES:
- Connect to City sanitary system, or flush vault (only for low waste volume)
- Lower maintenance costs
- More permanent
- Durable
- Custom or catalogue options
- Various aesthetic options

MINUSES:
- Not mobile
- Higher upfront costs

Upfront Cost: ~$70k/stall + ~$70k for site wk
Maintenance cost: ~$3k/yr/stall
Custom Toilets: Diversity of Designs

Pitstop: San Francisco

Kohler, India
Maintenance & Repairs

- City Staff
- Nonprofit Collaboration
- Business District Collaboration
- Contract Services
- Subsidizing Partners
Potential Staffing

- FULL-TIME ATTENDEES
- DAILY CLEANING
- HOURLY CLEANING & CHECKING
- ON-CALL MAINTENANCE
5 Toolbox of Strategies: Showers

- Increase Hours at Existing
- Improved Signage for Existing
- Open Closed Facilities
- Subsidize Gym Membership
- Add to Existing Service Centers
- Staffed Mobile Showers
- Tent Showers
5 Showers
Toolbox of Strategies: Laundry

- Add Laundry to Service Sites
- Subsidize Laundry Coins
- Partner with Laundromats
- Mobile Laundry Facility
5 Laundry

Proposal
THANK YOU!