

July 21, 2022 | 3:00-4:00 pm ET



BECOME A MEMBER:
cityparksalliance.org/join

RESTORING NATURE TO THE URBAN LANDSCAPE

MODERATOR



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ACCREDITATION AVAILABLE FOR:



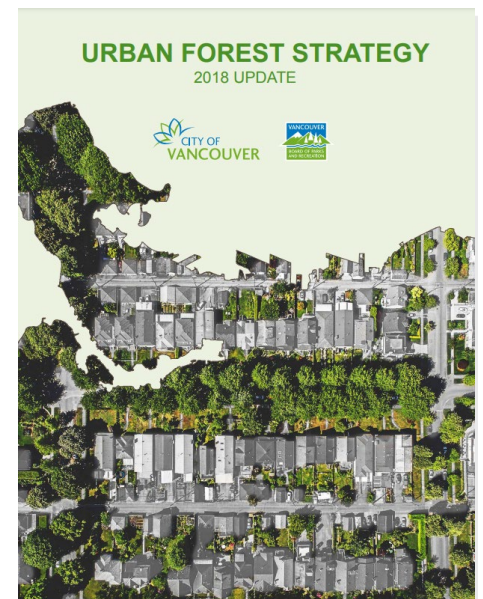
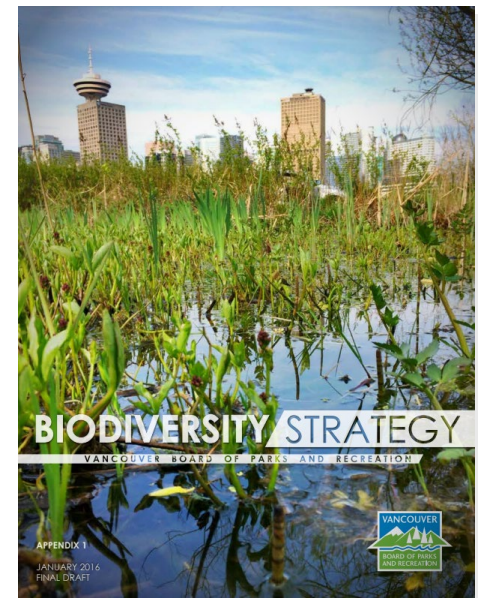
Landscape Architecture
Continuing Education System™



VANCOUVER MEADOWS
City Parks Alliance





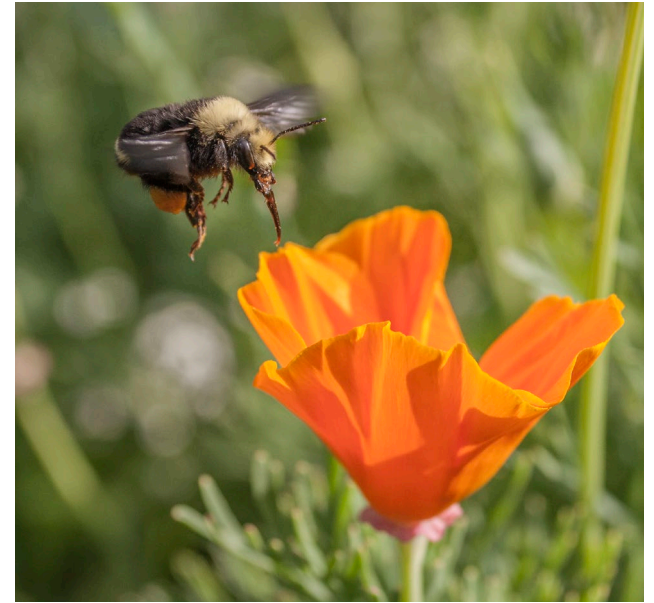


Reports & Strategies

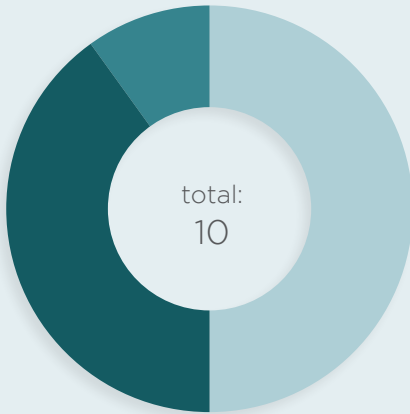
Vancouver Meadows



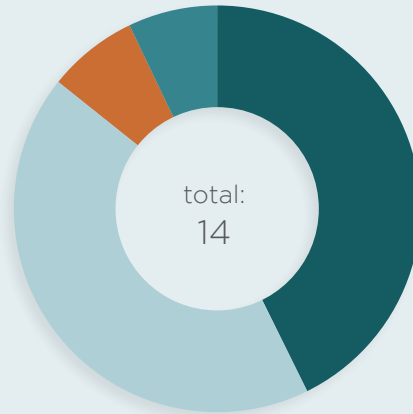




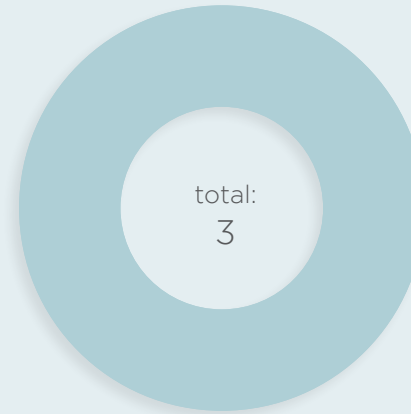
LAWN



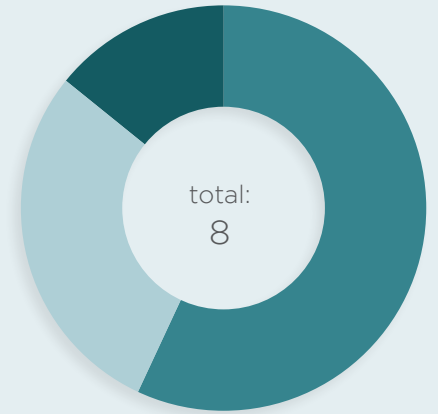
CEPERLEY MEADOWS



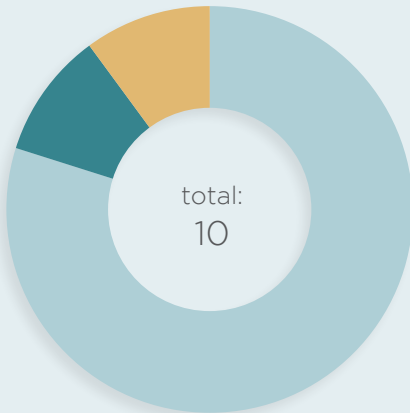
FRASER RIVER PARK



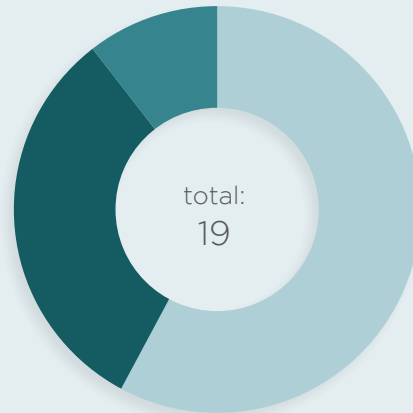
MOUNTAIN VIEW CEMETERY



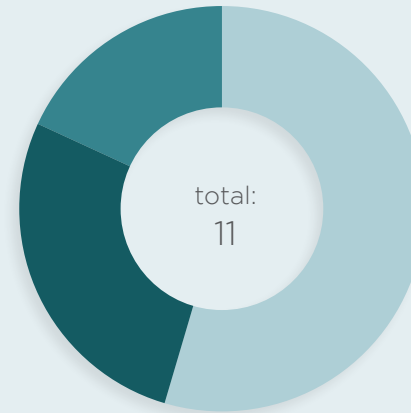
STRATHCONA PARK



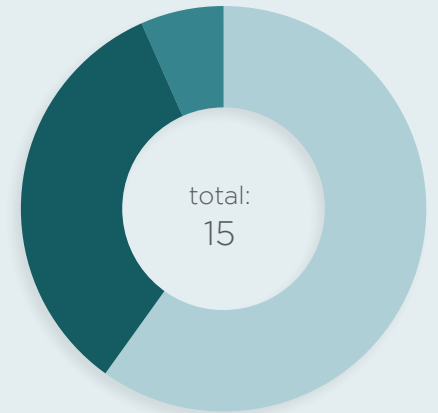
JONES PARK



LANGARA GOLF COURSE



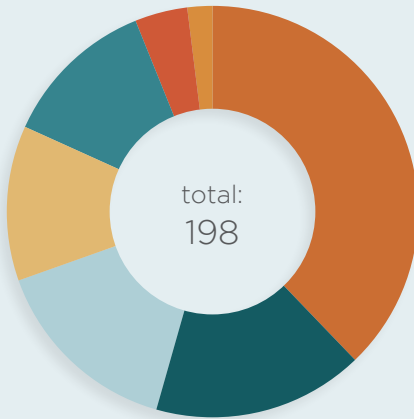
TOTEM FIELDS



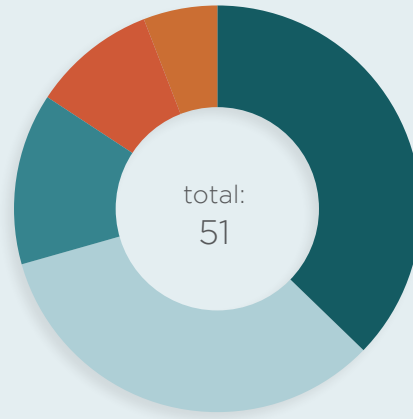
VANDUSEN GARDENS



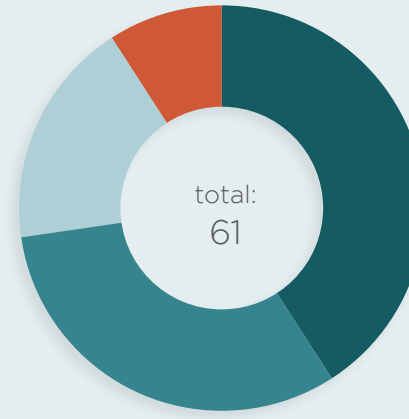
NO MOW



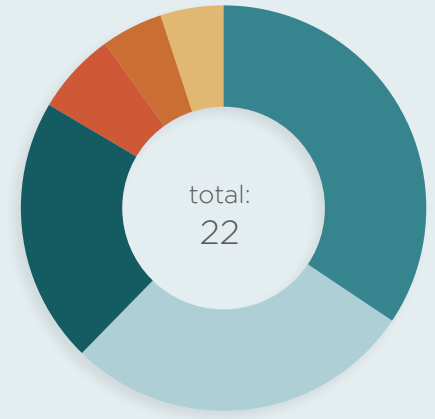
CEPERLEY MEADOWS



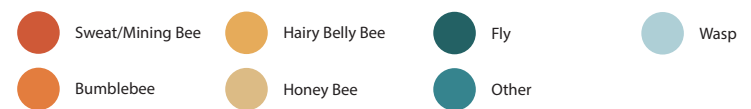
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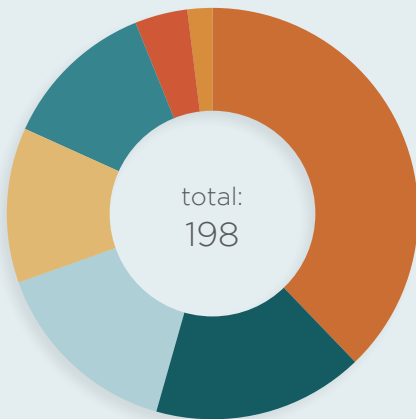
MOUNTAIN VIEW CEMETERY



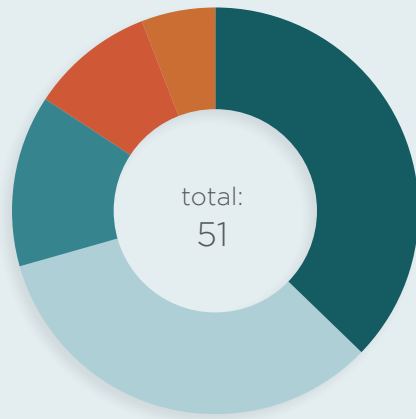
STRATHCONA PARK



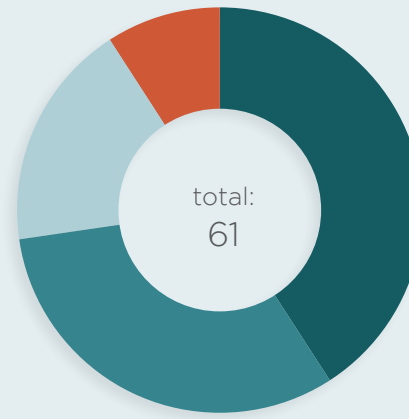
NO MOW



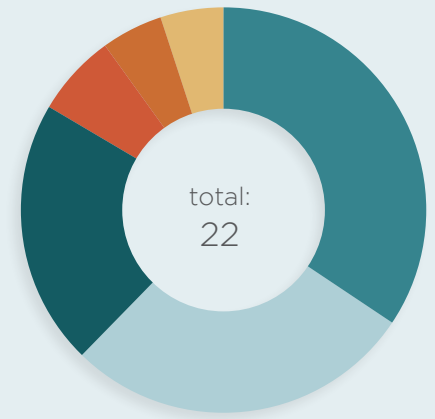
CEPERLEY MEADOWS



FRASER RIVER PARK

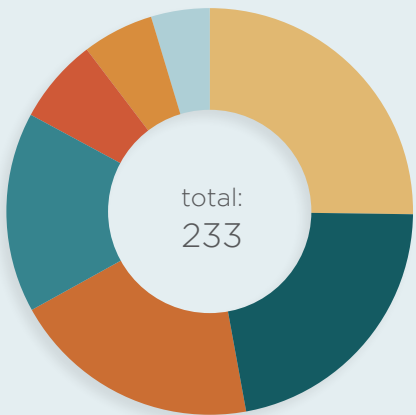


MOUNTAIN VIEW CEMETERY

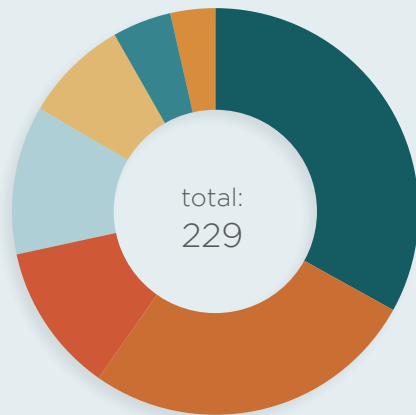


STRATHCONA PARK

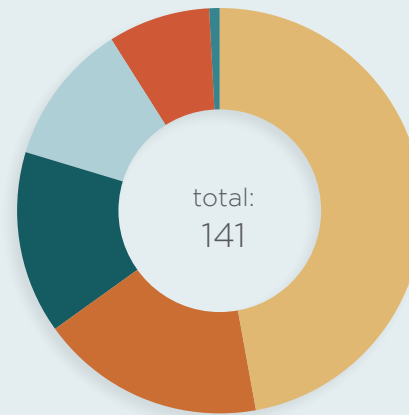
WILDFLOWER



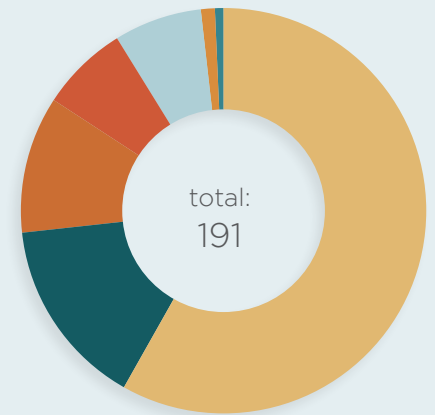
LANGARA GOLF COURSE



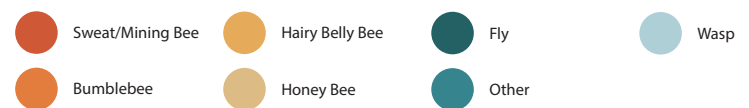
MOUNTAIN VIEW CEMETERY

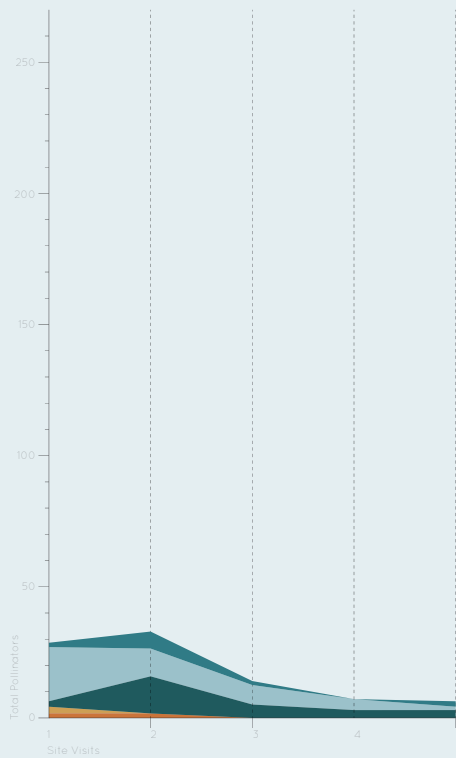


STRATHCONA PARK #1

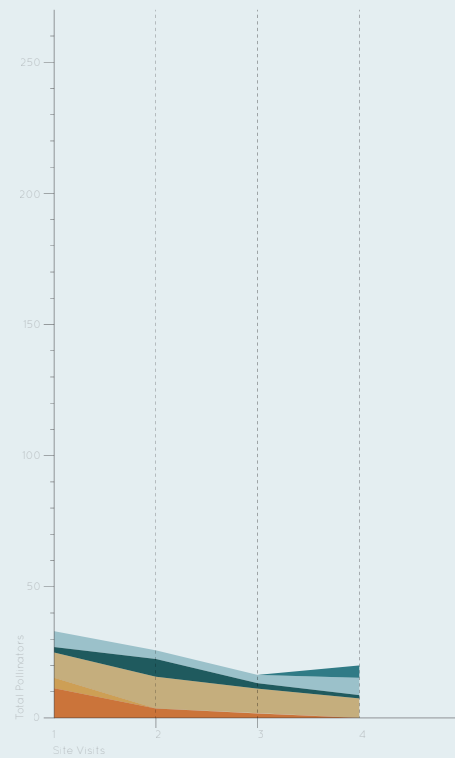


STRATHCONA PARK #2

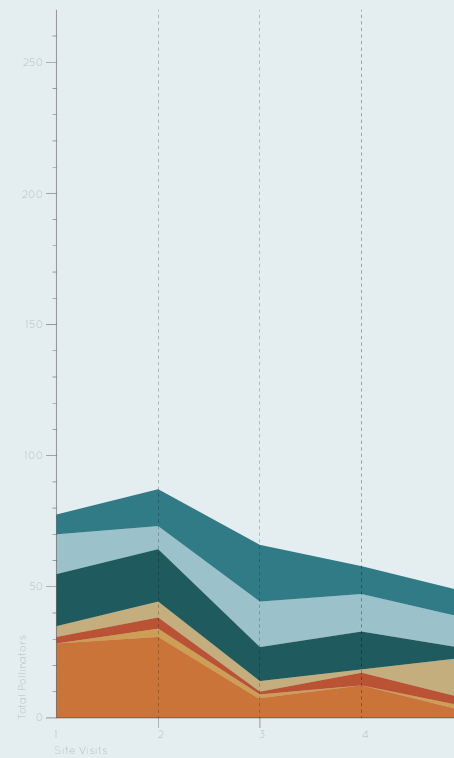




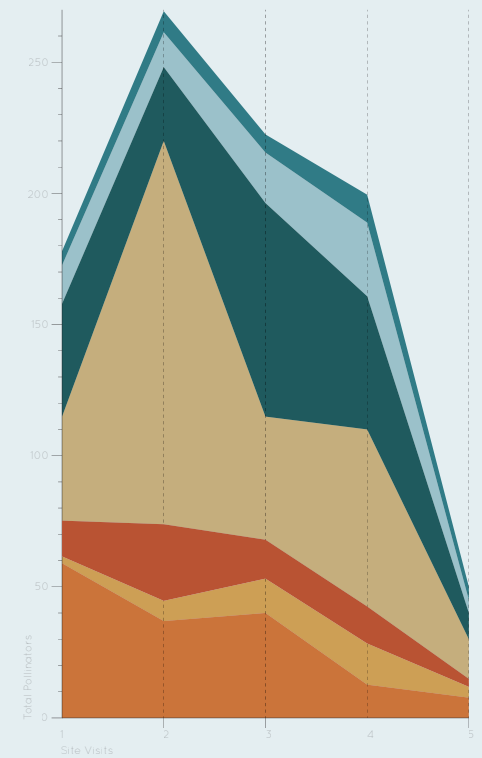
LAWN



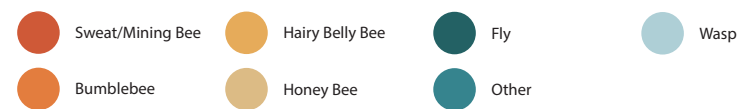
CLOVER



NOMOW



WILDFLOWER





Naturalized Meadows

No Mow

No planned mowing
Manage invasives as needed

Low Mow

Mow up to twice per year

Enhanced Low Mow

Wildflower Over-seeded Turf
Mow up to Twice per year

Wildflower

Broadcast Seeding (Bare Soil)
Mow up to twice per year



New Brighton

Turf Cutting Maintenance

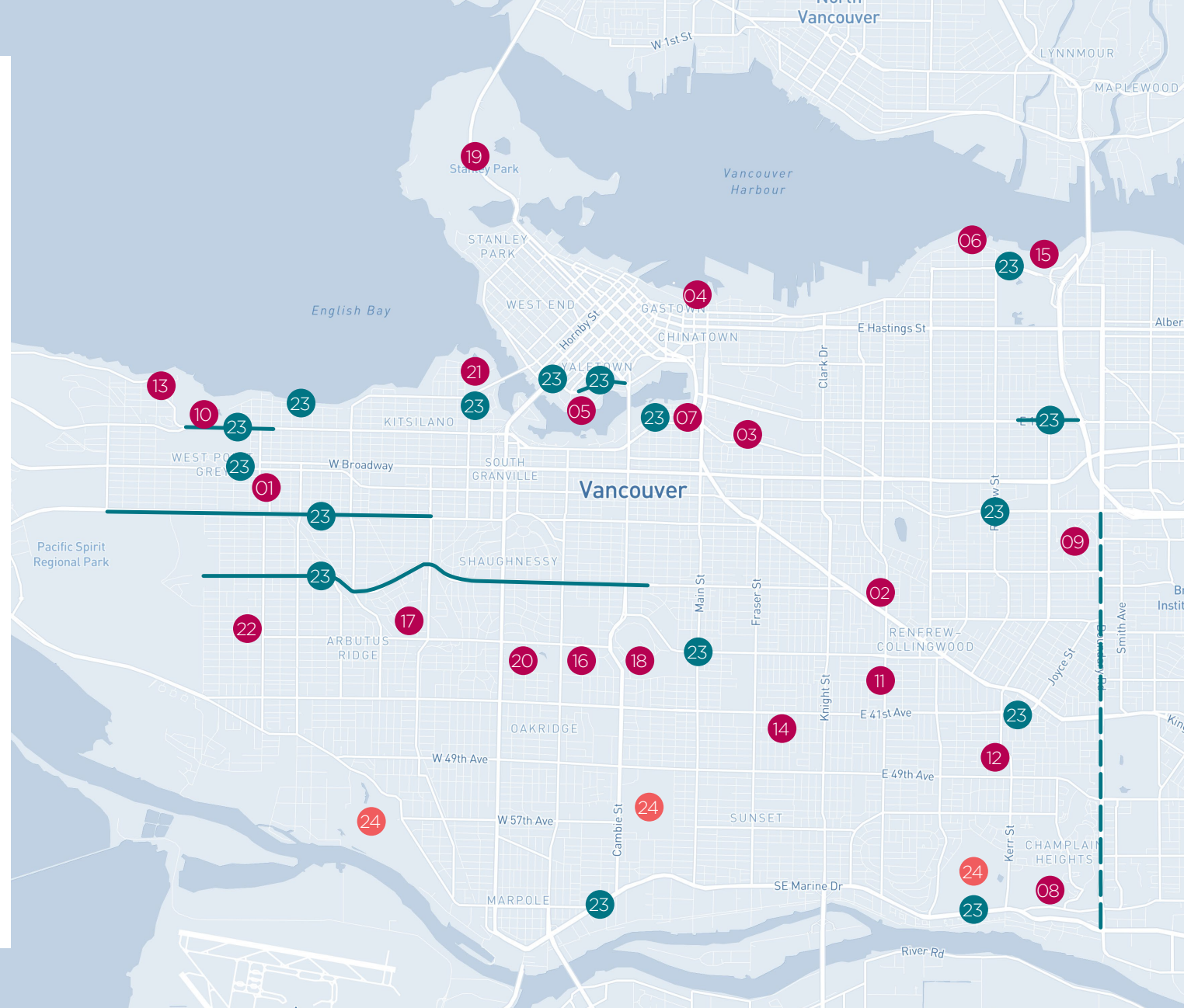
				Level 1
				Level 2
				Level 3

* Note:
Level 1: Cutting all turf city-wide
Level 2: Mowing reduction citywide
(only on passive)
Level 3: Mowing only for essential
services (Sports Fields & display areas)

** Note:
areas marked as **Red** is related to
safety (e.g. slopes/roll over hazard
/ fall hazard)

2022 MEADOW LOCATIONS

1. Almond Park	0.40
2. Brewers Park	0.04
3. China Creek North Park	0.61
4. CRAB Park	0.10
5. David Lam Park	0.08
6. Dusty Greenwell	0.07
7. East Park	0.30
8. Everett Crowley Park	0.66
9. Falaise Park	0.50
10. Jericho Park	1.42
11. Jones Park	0.12
12. Killarney Park	1.70
13. Locarno Park	0.43
14. Memorial South Park	0.10
15. New Brighton Park	1.25
16. Oak Meadows	1.10
17. Prince of Wales	1.03
18. Queen Elizabeth	2.00
19. Stanley Park	5.26
20. VanDusen	1.00
21. Vanier Park	0.31
22. West Memorial Park	1.70
23. Road Boulevards	12.05
24. Golf Courses	9.60
TOTAL	41.84Ha





NO MOW MEADOW

DEFINITION

A 'No Mow' Meadow is an area of existing lawn that is no longer mown, as a means of encouraging native and naturalized wildflower species to germinate, bloom and self seed. Some manual maintenance is required to control invasive plants and weeds.

- Good for difficult to mow sites
- Supports native species of flora and fauna
- Improves soil health & hydrology

APPLICATIONS

Naturalized meadows should be grown in areas of parks and landscapes that are away from heavy foot traffic. Ideally grown around the bases of trees or on steep grades, grassland meadows can aid the reduction of difficult maintenance.

Around the perimeter of meadows, 1-2m lawns should be maintained to create Queues For Care; the understanding that these are intentionally grown and not forgotten spaces.

MAINTENANCE

Wildflowers - To encourage a diverse wildflower count, native wildflower plugs can be planted when available. Consider partnering with community groups, schools and citizen science opportunities to plant the plugs and maintain the meadows. Also, seed balls can be created with these groups, with a mixture of seeds, rolled in local soils and clay. This mixture helps the distribution of wildflower and holds moisture for germinated seeds, reducing drought impact.



LOW MOW MEADOW

DEFINITION

An existing passive-use turf area that has its mowing reduced to once or twice per year, to allow native and naturalized plant species to bloom and establish.

- Improves ecological value of a site
- Supports native species of flora and fauna
- Improves soil health & hydrology

APPLICATIONS AND LIMITATIONS

After assessing the site, to see whether it can support the reduced maintenance aesthetic and avoid conflict with existing uses, 'low mow' meadows can be placed on the fringes of busy landscapes to provide interesting and diverse aesthetics to a space.

The perimeter edge and pathways can be mown on a regular basis, however, avoid mowing the larger meadows during May - August 15th as birds and mammals may be nesting within the vegetation.

MAINTENANCE

Perimeter Strip - Ensure meadows have a mown 1-2m lawn strip around the perimeter to exhibit ongoing care and maintenance. Mow with the same regularity as adjacent lawns.

Central Paths - mow footpaths and seating areas through the meadow to encourage public use along predetermined paths. This encourages public interaction incorporates the meadows into usable park space.



ENHANCED LOW MOW MEADOW

DEFINITION

An existing passive-use turf area that has its maintenance reduced to once or twice per year and is enhanced with native wildflower seed, plugs or bulbs.

- Improves ecological value of a site
- Supports native species of flora and fauna
- Improves soil health & hydrology

APPLICATIONS AND LIMITATIONS

After assessing the site, to see whether it can support the reduced maintenance aesthetic and avoid conflict with existing uses, 'low mow' meadows can be placed on the fringes of busy landscapes to provide interesting and diverse aesthetics to a space.

The perimeter edge and pathways can be mown on a regular basis, however, avoid mowing the larger meadows during May - August 15th as birds and mammals may be nesting within the vegetation.

MAINTENANCE

Perimeter Strip - Ensure meadows have a mown 1-2m lawn strip around the perimeter to exhibit ongoing care and maintenance. Mow with the same regularity as adjacent lawns.

Central Paths - mow footpaths and seating areas through the meadow to encourage public use along predetermined paths. This encourages public interaction incorporates the meadows into usable park space.



WILDFLOWER MEADOW

DEFINITION

Wildflower meadows are an incredibly valuable habitat for native beneficial species of flora and fauna. Enjoyed by many, the flower spectacle encourages public interaction and observation throughout the year, and offers visual stimulation to park spaces.

- Supports native species of flora and fauna
- Improves soil health & hydrology

KEY POINTS

- Line trim weeds & tree saplings
- Mow a perimeter lawn edge (1-2m) around meadow and mow public trails through, where possible
- Reseed every third year (approx)

APPLICATIONS AND LIMITATIONS

To establish wildflower meadows, the lawn should be stripped back to bare soil and treated with a safe herbicide. Wildflower seeds prefer low nutrient soils so avoid adding any fertilizer to the site for the duration of the wildflower meadow.

Use either a slit-seeder to apply seed, after which it needs to be lightly pressed into the soil (with a roller or feet) and kept damp for the duration of the establishment period. Native evergreen grass seed (clump forming) should also be incorporated into the meadow to stabilize the soils (25% minimum of the wildflower mix).

MAINTENANCE

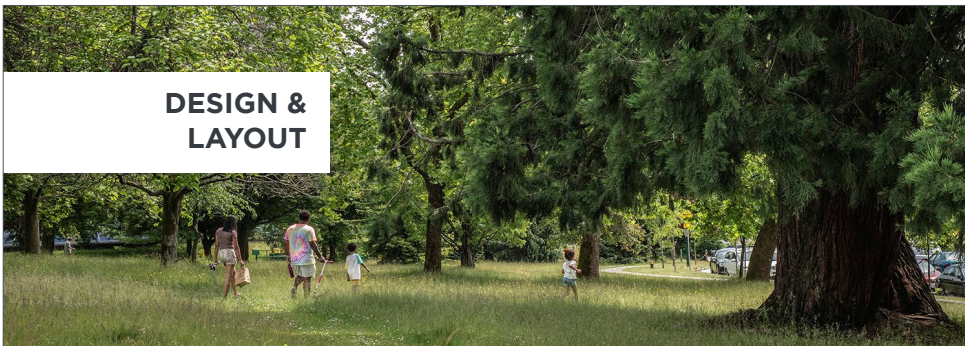
Mow - Mow meadows in spring before the growing season, or late summer just before the fall rains allowing time for some growth prior to the first winter frosts.

Weed - Spot weed any invasive weeds or tree saplings before tap roots have spread and before setting seed to minimize future maintenance.

Reseed - Spread additional seed every three years to top up the wildflower species and ensure the meadows look appealing to the public. Seed can be distributed in spring or fall during periods of rain and will need additional irrigation in dry periods during establishment (approximately 4-6 weeks).

Community Groups - Consider partnerships with community groups, schools etc. to spread the seed and care for meadows. 'Seed balls' can be created with a soil/clay/seed mix, produced and distributed by community groups. Scatter onto meadow sites in spring to germinate and establish before summer droughts/winter frosts.

DESIGN & LAYOUT



There are a number of small maintenance strategies that can be implemented to improve the success of naturalized meadows and encourage positive public reception through Queues For Care.

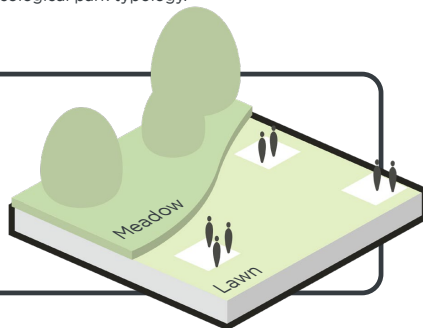
With careful and balanced maintenance, these various design and layout options will

reinforce the understanding that the meadows are inviting spaces for the public to use and intentional within our park systems.

Similarly, with informational signage at each meadow, the public will understand that we are continuing to look after this new ecological park typology.

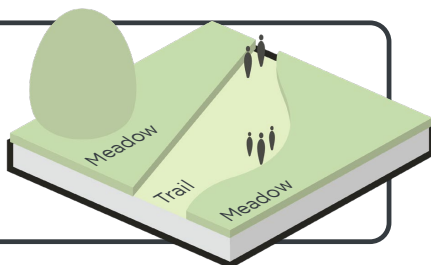
IMPROVE TREE HEALTH

Consider growing meadows around the base of trees to minimize regular conflict between tree roots and mowers. Meadows have been shown to both reserve moisture and cool temperatures in the soils, to the benefit of adjacent trees.



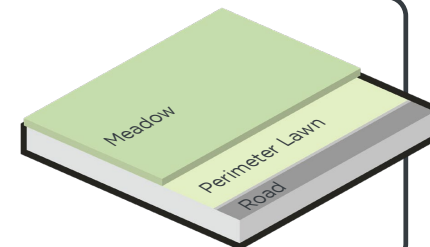
PUBLIC INTEREST

Encourage the public to interact with the naturalized areas by mowing footpaths and seating areas through the meadows. These can be coordinated with firebreaks and desire lines. Paths should be minimum 1.5m wide.



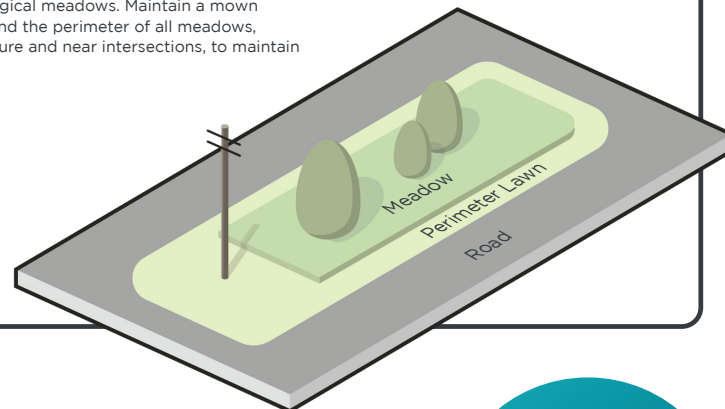
PERIMETER TREATMENT

Adjacent to roadways, drives and footpaths, mow a clean lawn frame around the perimeter of all meadows to create a strong Queue For Care. Maintain this frame as per standard lawn practices. This will promote the understanding the meadows have ongoing maintenance.



BOULEVARD TREATMENT

Where applicable, boulevards provide opportunities to connect vast swathes of a city with ecological meadows. Maintain a mown edge around the perimeter of all meadows, infrastructure and near intersections, to maintain visibility.



INFORMATION SIGNS

Signs are to be placed at all meadow sites to inform the public about Park Board intentions and provide interest in the meadows.

NATURALIZED MEADOWS
Best Management Practices



Best Management Practices - Cutsheets

Vancouver Meadows

PHASE 1

BASE LEVEL

Maintain regular park visits as usual

Staff to assess over a duration of time and keep track of needles, glass, cigarette butts etc.

Differentiate between items found in wider park area and specifically within the meadow grass.

Meadows do not offer significant amounts of fuel to fire risk.

Assess the site over a period of time before moving onto phase 2.

PHASE 2

INCREASED MONITORING

Increase visits from Spikes on Bikes, Mission Possible. etc.

MOWN PERIMETER

Increase mown perimeter edge to 3m wide.

INCORPORATE TRAILS

Providing clear and dedicated footpaths will encourage public to experience meadows and provide clear access

MOW AROUND BUILDINGS & ASSETS

Remove danger to adjacent property/assets by cutting back meadows around existing items.

Consider minimum 3m wide buffer.

PHASE 3

MOW

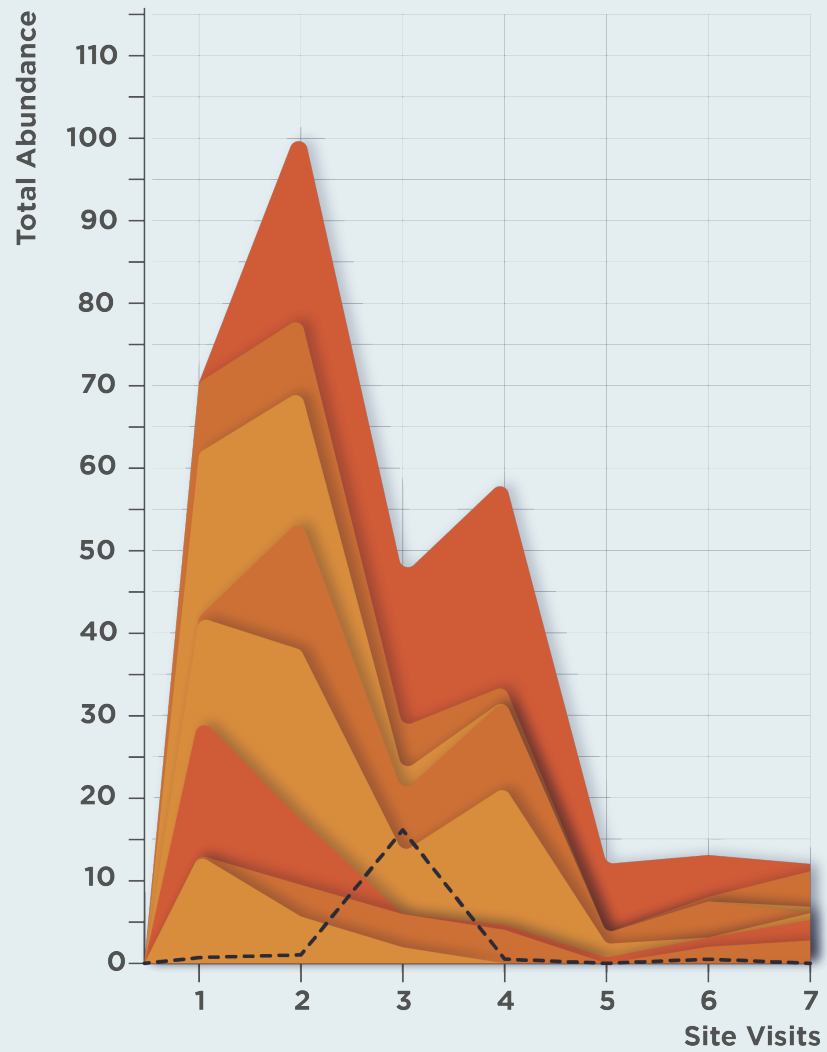
QEP ASSESSMENT

Ensure a qualified QEP assess the meadows before any largescale work is implemented, as nesting wildlife may be present.

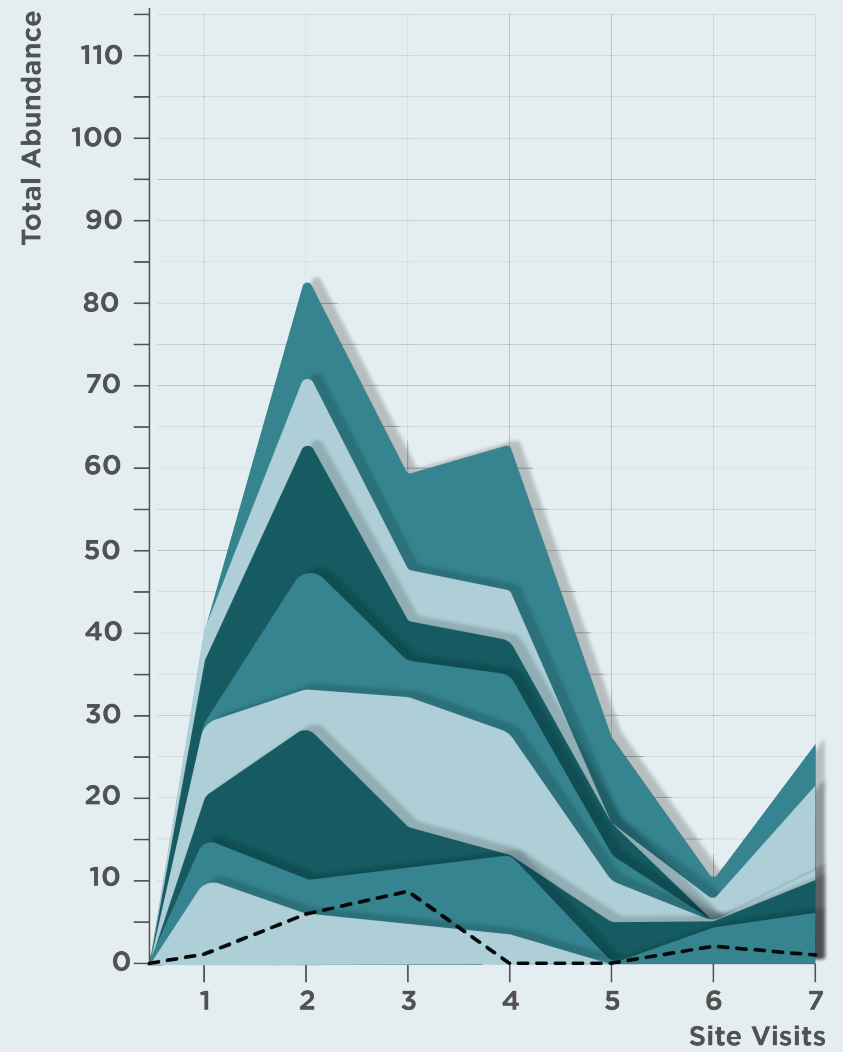
MOW BACK MEADOWS

As a last resort, mow down the meadows as deemed necessary. Consider discussing options with wider team prior to doing so.

Total Bloom

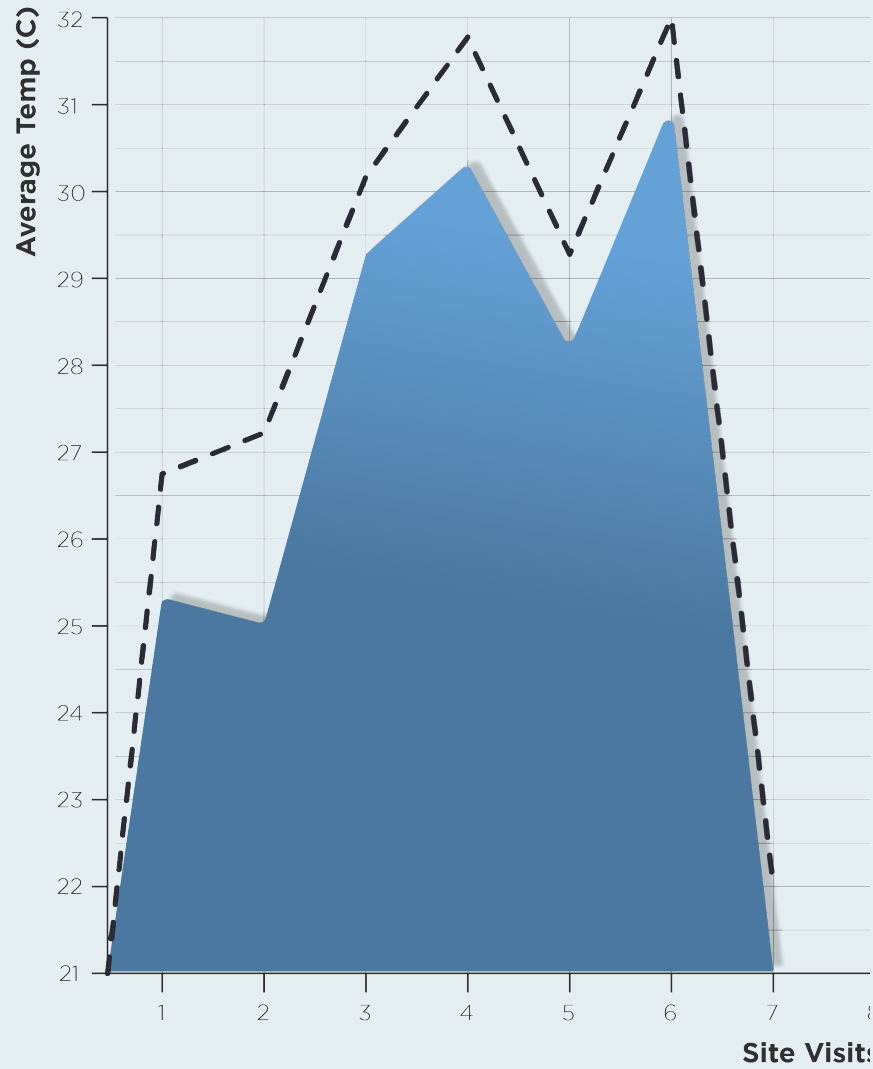


Total Pollinators

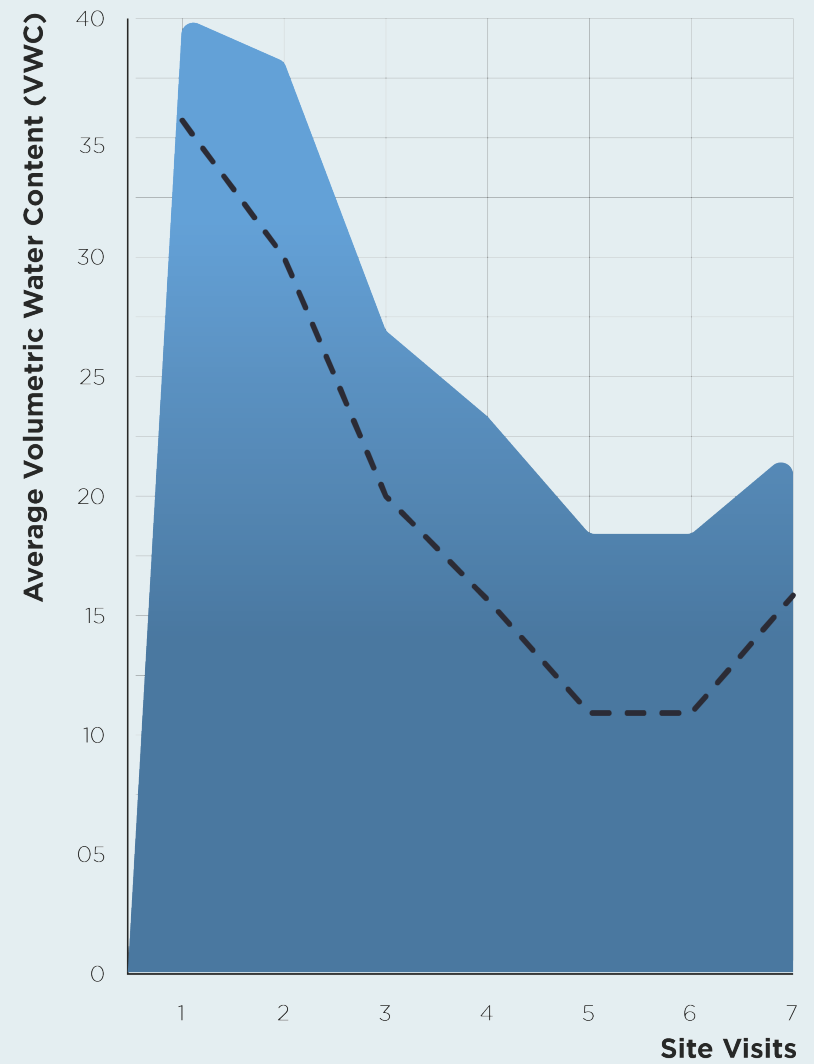


--- Lawn

Average Temp

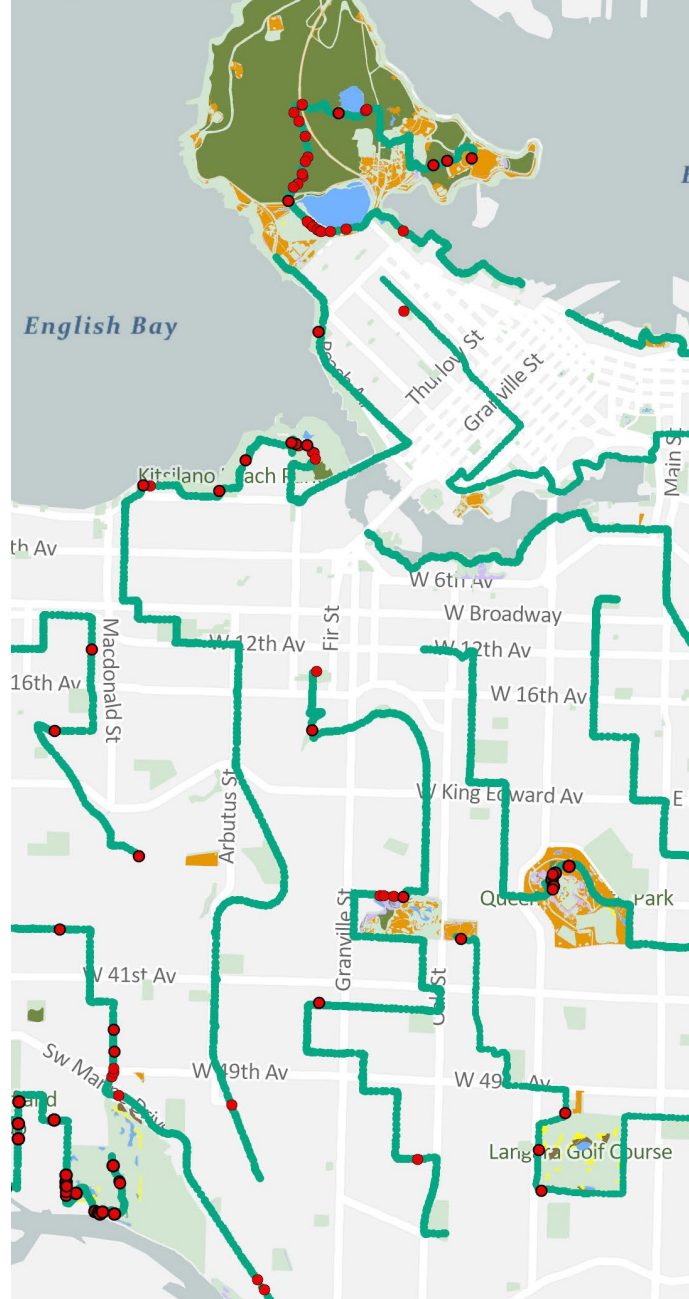


Total Moisture





Microbial Ecosystems
& Soil Nutrients



Bat Surveys



Bird Analysis



Musqueam Park Meadow Project

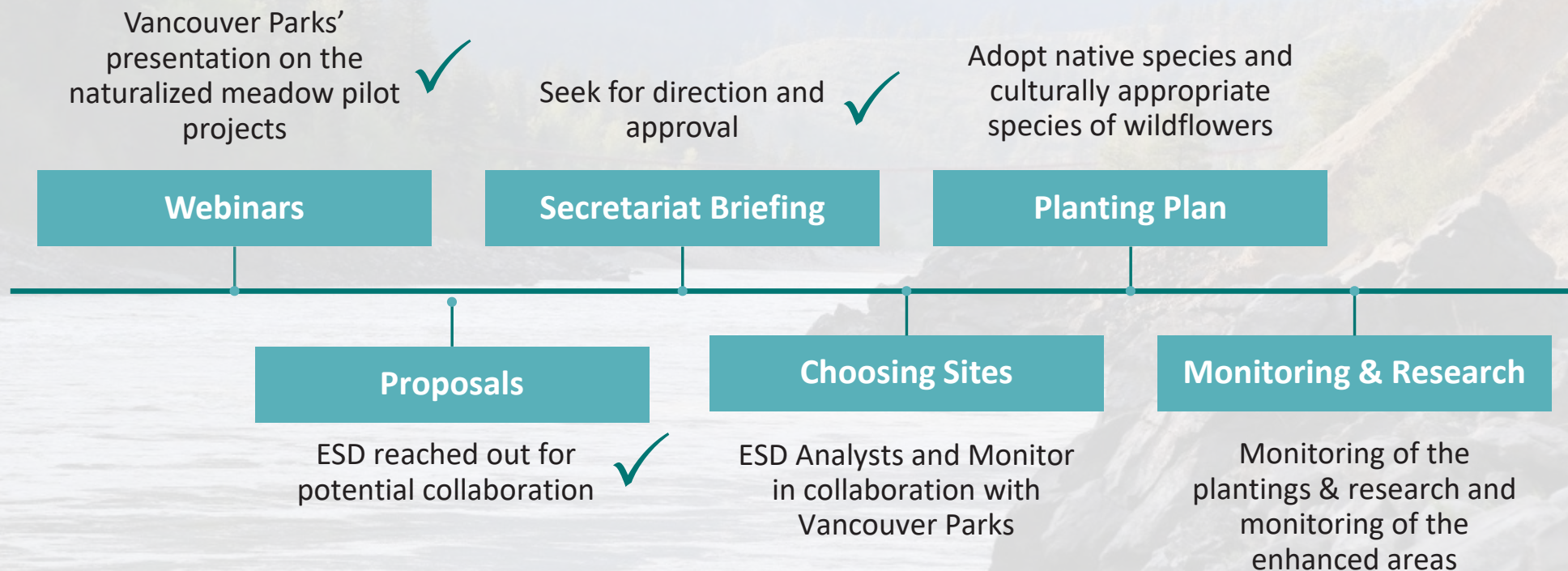
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Environmental Stewardship Department

July 2022



Background: Timeline



2



Potential Naturalized Meadow Sites Map



3



Next Step

- Seeking feedback from Musqueam Administration and Community
- Create planting plan (native grass and wildflowers species)
- Monitoring

4

An aerial photograph of a suburban neighborhood. In the foreground, there are rows of houses with dark roofs and green lawns. A central green space with trees runs through the middle. In the background, a dense city skyline is visible under a blue sky with scattered white clouds. The word "THANKYOU" is centered in a white box over the middle of the image.

THANKYOU

An aerial photograph of the Golden Gate Bridge spanning the Golden Gate Strait in San Francisco. The bridge's iconic orange-red towers and suspension cables are prominent against the blue water. In the foreground, the Presidio of San Francisco is visible, featuring lush green trees, a large green field, and several buildings with red-tiled roofs. The background shows the rugged, hilly terrain of the Marin Peninsula under a clear sky.

**PRESIDIO
TRUST**

Biodiversity for All @ the Golden Gate

Michael Boland, Chief Park Officer, Presidio Trust



Deep Human History



Complex Military Legacy



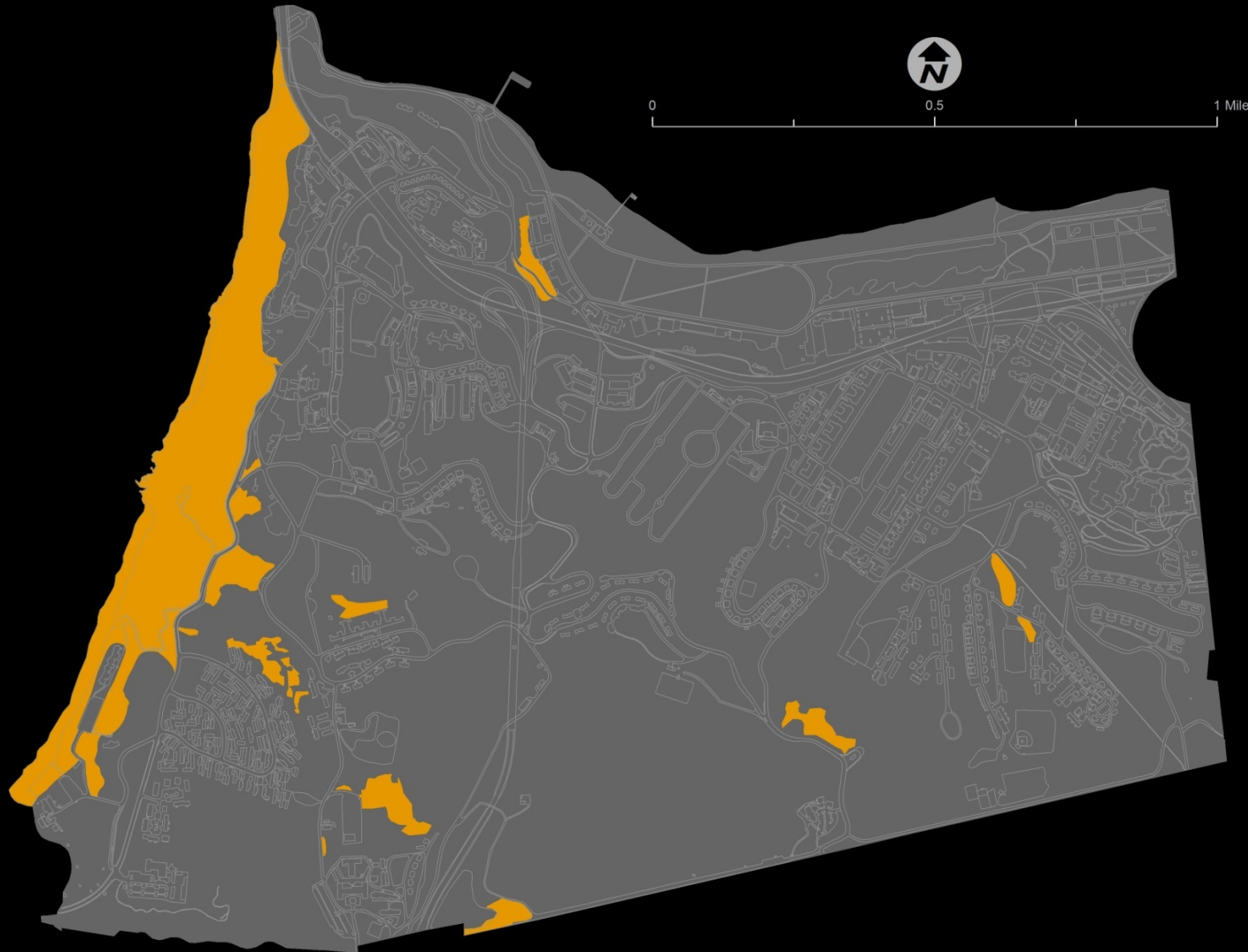
National Landmark District



A Serious Mess



A National Park Community



Relic Natural Areas

- > 425 insect species
- 353 native plant species
- 21 rare, threatened, or endangered species
- 58 locally significant species
- 15 native plant communities
- 23 wetland systems
- 323 bird species
- 20 mammal species
- 5 reptile species
- 4 amphibian species



Biodiversity Hot Spot

A vintage postcard of the Presidio grounds in San Francisco. The image shows a paved path leading through a lush, green landscape with various trees and shrubs. In the background, a large, light-colored building is visible, partially obscured by the foliage. The overall scene is peaceful and scenic, typical of a heritage site.

Can we restore the
biodiversity of a heavily-
visited heritage site like
the Presidio?

Grounds, Presidio, San Francisco Cal.



1. Change Our Perspective



National Park Legacy



Relic Areas



Pilot Projects



They just kept coming....



People: Problem > Solution

A close-up photograph showing a pair of hands wearing blue and white work gloves. The hands are carefully planting a small green seedling into a mound of brown soil. The background is slightly blurred, showing more soil and some dry grass. The text "2. Humanize the Primeval" is overlaid in white, bold font across the center of the image.

2. Humanize the Primeval



VS



The Nature Culture Divide

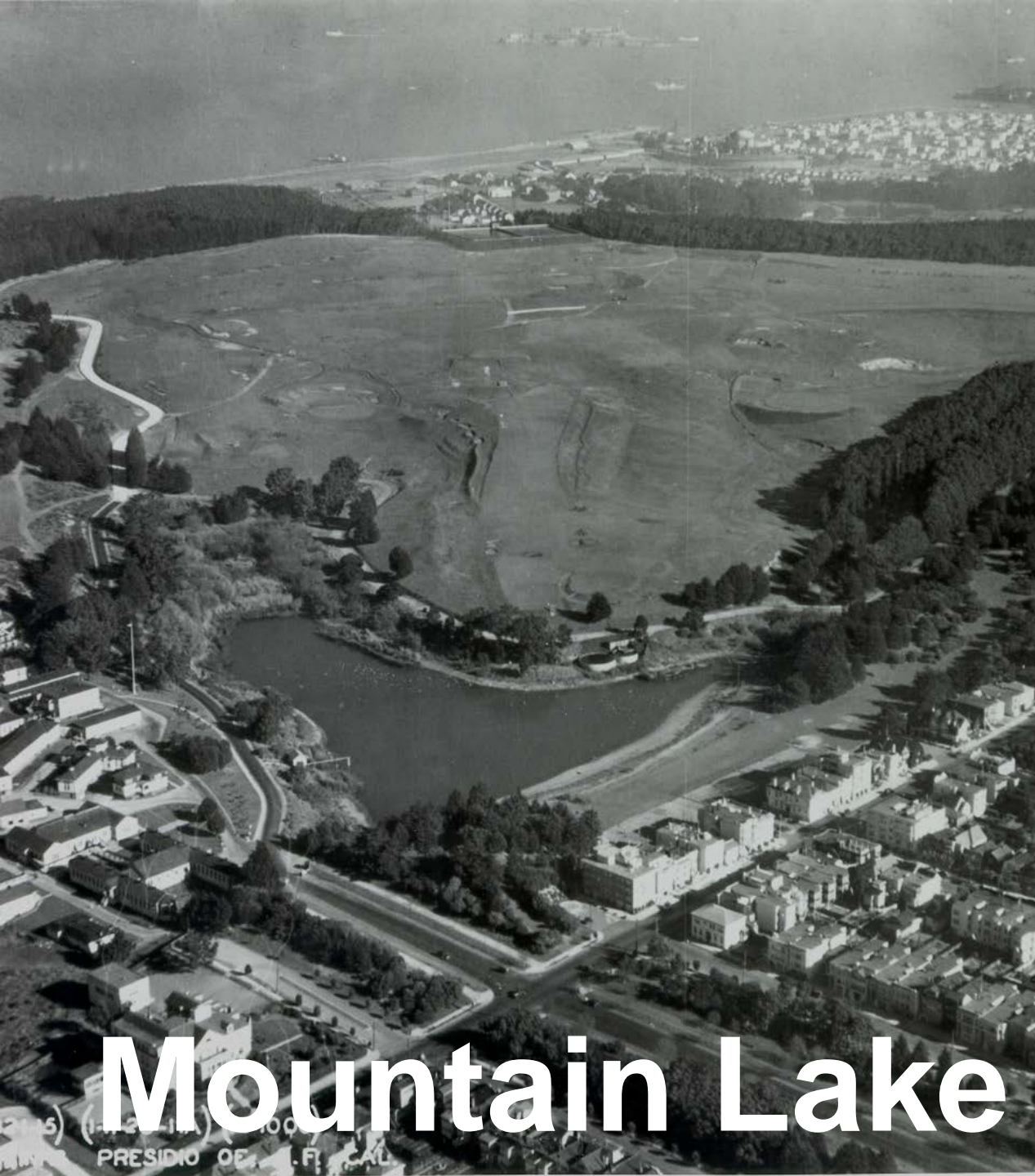


Expanded Field of Natures



Human-Centered Restoration





Mountain Lake



LOVE
MOUNTAIN
LAKE



Deep Engagement



Strategic Sequencing



Complete Transparency



Mountain Lake Restored



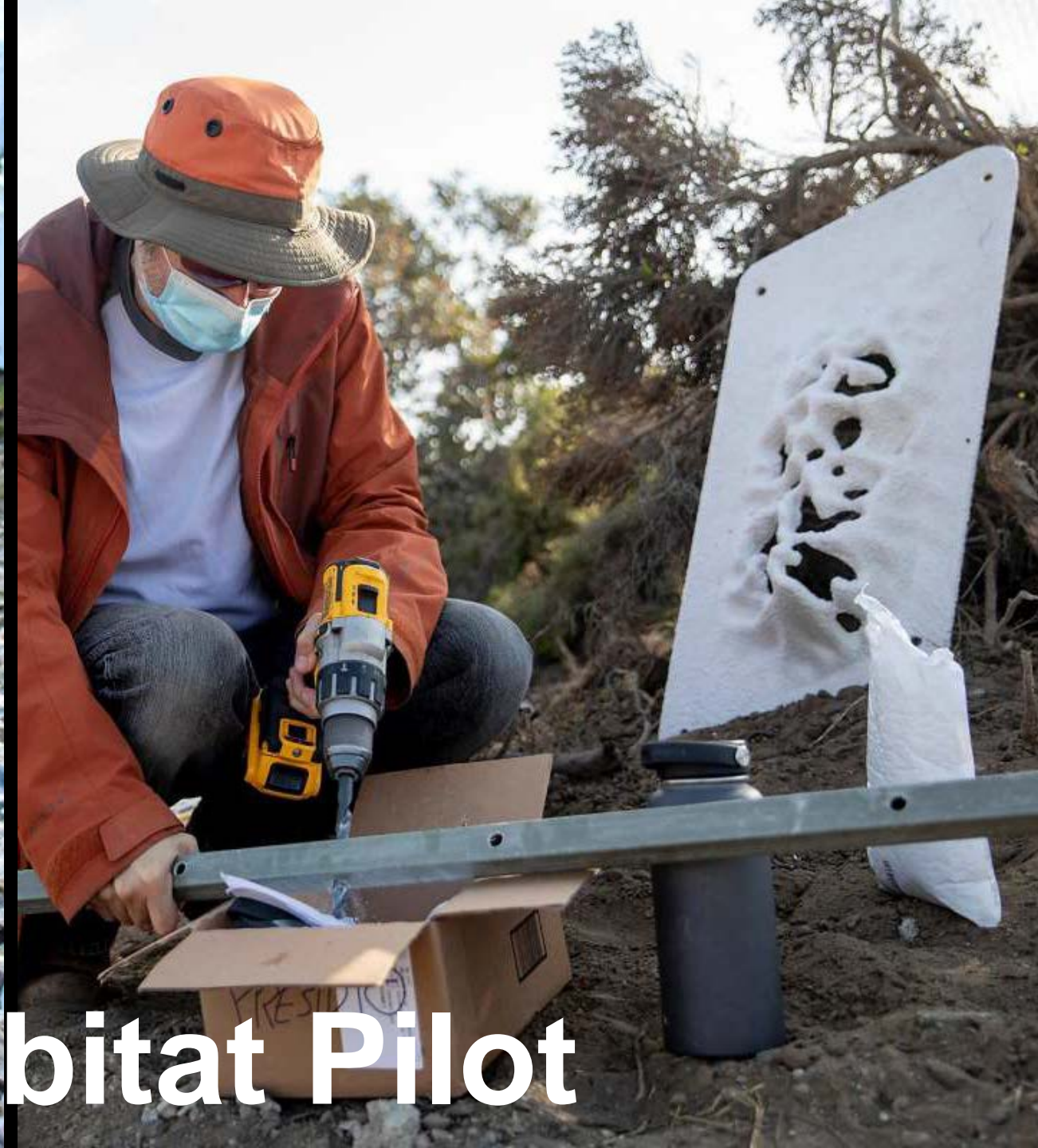
Remediation + Restoration



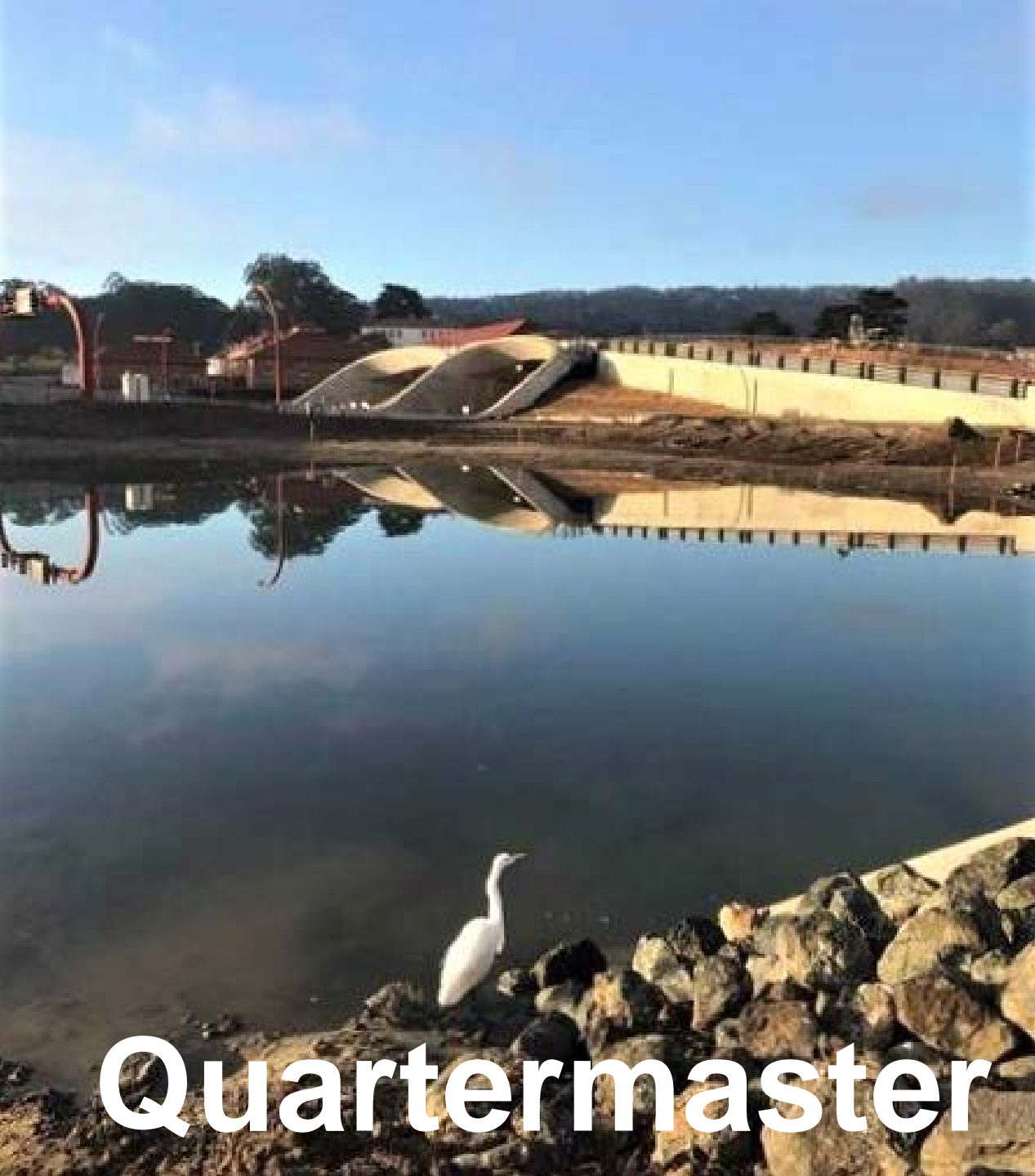
Thompsons Reach Restored



Infrastructure Opportunity



CCA Oyster Habitat Pilot



Quartermaster Reach Today



3. Rewild the Matrix



Dominated by Humans



Historical Ecology



Ecological Memes

What are specifications and design principles for our local habitats?

Landscape Archetypes

What are common historic landscape types at the Presidio?

Design Guidance

What guidance is needed to maximize ecological benefit of these spaces?

Maintenance & monitoring

How do these spaces need to be maintained over time?

Integrate Ecology into Design



+



=



New Foundation
Planting
Archetype

New Garden Archetypes



Integrated Stewardship Team



Eco Horticulture Practices



Urban Wildlife Research

An aerial photograph of San Francisco, California, showing the city skyline, the bay, and surrounding green spaces. The text is overlaid on the image.

Between 1997 and 2021:

- Natural Area – 23 acres to 113 acres
- 21 Special Status Species Increasing
- Reintroduced 50 species

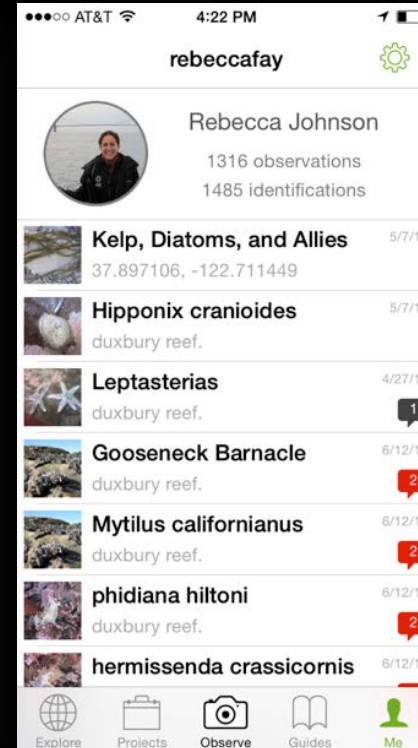
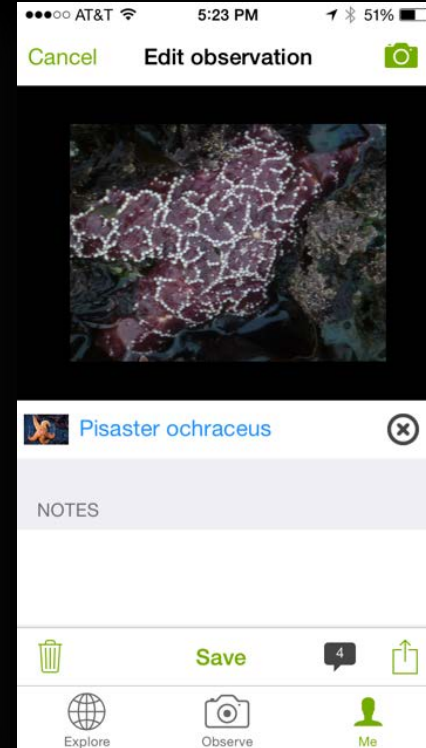
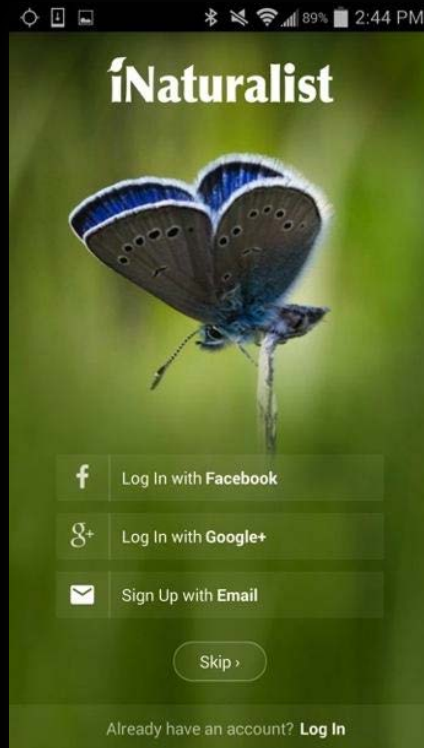
...While visitation has grown from nearly 0 to 10 million visits per annum

4. Build Future Stewards





CALIFORNIA
ACADEMY OF
SCIENCES



Volunteers & Citizen Science



Investment in Urban Youth



Presidio Tunnel Tops



A New Stewardship Engine



Next Generation of Stewards

Key Takeaways

- Preserving urban biodiversity requires an expanded field of natures
- We need to see people as the solution, not the problem
- All of our fine work is wasted unless we build future stewards for our planet