Scope and Context

- Four Components
  - Amenities
  - Trails
  - Shoreline
  - Fencing

- Design Constraints
  - Flooding
  - Peat and soft sediment
  - Wetland Conservation Areas
  - Passive uses only
Project Timeline

Start of Project

- Started Lake Ballinger Park Project on 9/30
- Initial meeting with the Mountlake Terrace Team on 10/8
- Bi-weekly meetings

Highlights

- Field work in similar parks week of 10/28
- Final review of presentation and display boards from the Mountlake Terrace Team 11/6
- Final edits 11/11
- Presentation to RPAC 11/12
Amenities

- Picnic Tables
  - Four different types
- Bird Watching
  - Opportunities
- Public Art
- Materials/Types
  - Process
- Amphitheaters
  - Simple stage
- Placement of these amenities

Recommendations will be made on specific slides.
Picnic Tables

**Wooden**

**Advantages**
- Natural look and feel
  - Paintable
- Comfort and versatility
  - Cost less
- Materials are easy to find and replace

**Disadvantages**
- Requires maintenance
- Susceptible to rot and mold
- They pick up grime, falling leaves and bird droppings
- Need to be cleaned with a wire brush

*Recommendation because of ease of replacement*
**Picnic Tables**

Thermoplastic Coated

**Advantages**
- Attractive and durable
- Weather proof
- Can withstand heavy use
- Easy to repair and require rare maintenance

**Disadvantages**
- Cost
- Can become too warm when in direct sunlight
- Prone to vandalism
- Less comfortable

__Recommendation because of durability__

Lake Ballinger Park

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Tabitha Manalu, Jun Wang
Picnic Tables

Advantages
• Longer lasting than wood
• No splinters, rotting or painting
• Good for the environment
• Built for outdoor durability

Disadvantages
• Cost
• Materials less flexible than other plastic lumber
• Materials may irritate skin
• Can absorb moisture

Reycled Plastic

Lake Ballinger Park
Concrete Picnic Tables

Advantages
- Climate proof
- Tip proof
- Pest proof
- Natural deterrent against vandalism
- Longevity

Disadvantages
- Highest cost
- Can be picked up and damaged
- Not as aesthetically pleasing
- Can absorb liquids and stains
Bird Watching

Advantages
• People of all physical abilities and ages can enjoy bird watching.
• No learning curve!
• No one can tell you you’re doing it wrong.
• Inexpensive
• Green and environmentally friendly pastime.
• There is no better way to unwind.

Disadvantages
• Access to smart phones that play bird songs might be stressful to the birds
• Invading territory

Birds you might see
- Dark-eyed Junkos
- Black Capped Chickadees
- Northern Flickers
- Anna’s Hummingbird
- Sparrows – House and Song

Yellow-rumped Warbler
- Canadian Geese
- Mallards
- Grebes
- Great Blue Herons
- Cormorants
- Crows
- Wrens – Marsh and Buicks

Lake Ballinger Park
*Recommendations

- Bird blinds
- Interactive displays
Public Art

Advantages
• Public art humanizes the built environment and invigorates public spaces
• Public art is freely accessible.
• Exposes local artists
• Encourage passion for the arts within adults and children
• Aesthetically pleasing
• Help the economy to generate more income by tourism.

Disadvantages
• Could create controversy
• It takes a lot of space to build it.
• Need to spend a lot of money to build it.

Materials:
• Metal
• Ceramic
• Cast Stone
• Concrete

*Recommendation
Sculpture made out of concrete and cast stone

Lake Ballinger Park
Example of Public Art Implementation

Public Art Process

1. Arts Commission and staff develop draft project description including guidelines, selection criteria, budget and scope of artist solicitation.

2. Project description is scheduled as a public comment item on the Arts Commission's agenda, and a press release generated.

3. Project description and public comments are presented to City Council for review and approval.

4. Artists are invited to submit applications.

Example from the City of Olympia
Amphitheaters

Advantages
- Brings community members together
- Encourages expression of music and creativity
- Creates a diverse social space

Disadvantages
- Crowding
- Garbage
- Excessive noise
- Cost
- Disturb wildlife
Amphitheaters

*Recommendation: smaller scale stage

Located on Mercer Island
Locations for Picnic Tables or Benches

- West side of park
- Proximity to lake and ponds
Location for Public Art

AMENITIES

- Boat launch area
- Easy access
- High traffic

Lake Ballinger Park
Trail Surface Materials

- Concrete
- Asphalt
- Gravel
- Boardwalk
CONCRETE

ADVANTAGES
- Best ADA surface
- Longevity, last 20+ years
- Small effect by flood
- Cleaner surface during or after rains
- Does not require a gravel base

DISADVANTAGES
- More expensive
- Less natural looking
- Impervious surface

ASPHALT

ADVANTAGES
- Smooth Surface
- Cheaper than concrete in initial cost

DISADVANTAGES
- Constant maintenance of crack filling
- Must be completely overlaid about every 8-10 years
- Require a rock base
- Impervious surface
ADVANTAGES
• More natural looking
• Cheaper installation cost

DISADVANTAGES
• High maintenance cost
• Difficult to use in wet & soft conditions
• Difficult to remove deposits after rains
• Not ADA accessible

ADVANTAGES
• Access to unavoidable wetland area
• Does not need grading or filling
• Facilitate bird watching and ecotourism
• Aesthetic value

DISADVANTAGES
• Slippery and moss growth
• High cost
• Require a rock base
• Impervious surface

Lake Ballinger Park
Trail Location & Connection

- Interurban Trail
- Lakeview Trail
Shorelines Overview

- Hard/Structural Shorelines
  - Bulkheads
- Hybrid Shorelines
  - Planting
  - Setback Bulkhead
  - Grass Pavers
- Soft/Green Shorelines
  - Slope Bioengineering
    - Live revetments
    - Fascines
Shorelines are Not Created Equal

Consider:
- Erosion Control
- Habitat
- View Corridors and Aesthetics

Hard/Structural Shorelines

Soft/Green Shorelines

Hybrid Shoreline

Consider:
- Erosion Control
- Habitat
- View Corridors and Aesthetics
Hard Shoreline - Bulkheads

- **Advantages**
  - Temporarily ↓ Erosion
  - Less maintenance
  - Longevity

- **Disadvantages**
  - ↑ Erosion over time
  - ↓ Shade
  - ↓ Vegetation
  - Not aesthetically pleasing
  - Rigorous permitting process
  - Most costly
Bulkheads at Lake Ballinger

Before

After

MLT Parks and Facilities
Hybrid Shoreline - Planting

• Advantages
  o Temporarily ↓ Erosion
  o Less maintenance
  o Longevity
  o ↑ Shade
  o ↑ Vegetation
  o Aesthetically pleasing

• Disadvantages
  o ↑ Erosion over time
  o Permitting Process
  o Costly
Planting at Lake Ballinger Park

Before

After

Implementation by Creek and Lake
- Devegetate, remove invasives
- Provide water access with amenities

Eastmetrowater.areavoices.com
Hybrid Shoreline – Setback Bulkhead

• Advantages
  o ↑ Natural habitat
  o Longevity
  o Aesthetically pleasing
  o Direct access to water
  o Less erosion than traditional bulkhead

• Disadvantages
  o Maintenance and cost
  o Initially lose vegetation, shade

• Implementation
  o Northern end of Lake
  o Boat Launch

Before

After

Govlink.org
Hybrid [Shoreline] – Grass Pavers

• Advantages
  - Less maintenance
  - Longevity
  - Erosion and flood proof
  - Aesthetically pleasing

• Disadvantages
  - Not commonly used for shorelines
  - Cannot plant natives or trees
  - Costly
Grass Pavers at Lake Ballinger Park

Before

After
Soft Shoreline – Slope Bioengineering

- **Advantages**
  - Assistance with permitting process
  - ↓ Erosion
  - Less maintenance over time
  - Longevity
  - Aesthetically pleasing
  - Direct access to water

- **Disadvantages**
  - Initial maintenance and cost
  - Initially lose vegetation, shade

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Located at Lake Ballinger Park

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Govlink.org
goldenvalleymn.gov
Green Shoreline at Lake Ballinger Park

Before

After

- Setback Bulkhead
- Plantings
- Slope Bioengineering

Govlink.org
FENCES

- Hedges
  - i. Shrubs
  - ii. Deciduous Trees
- Vines
- Wooden fence
- Metal fence
Hedges

Shrubs

Red Twig Dogwood (*Cornus sericea*), Swamp rose (*Rosa palustris*)

Advantages:
- Aesthetically pleasing, full of colors
- Fast growth
- Maximum height ~15 feet
- Grow in moist to wet soils

Disadvantages:
- Susceptible to leaf & twig blights, leaf spots, and cankerworms
- Need annual pruning every spring to allow new stems grow back and retain their color

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Hedges
Deciduous Trees

Oregon ash (*Fraxinus latifolia*), Vine maple (*Acer circinatum*)

**Advantages:**
- Able to grow under the shade
- Grow in moist to wet soils
- Bird attracting
- Able to hold stream banks and eroding soils

**Disadvantages:**
- Height range is 25-70 feet
- Slow growth where disturbance in present
- Need early thinning to improve stand quality

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Vines

Climbing roses \((Rosa\ spp.)\)

**Advantages:**
- Blooming from spring through autumn
- Able to live in moist to dry soils
- Grow rapidly up to \(~20\) feet
- Rapid growth in moist to dry soil

**Disadvantages:**
- Needs regular pruning during blooming seasons
- Prone to Rose blackspot \((Diplocarpon\ rosae)\)
- Needs woods that can stay during flood

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Wooden Fence

**Advantages:**
- Aesthetically pleasing
- Clear border to prevent human disturbance

**Disadvantages:**
- Expensive installing cost
- Requires woods that is highly durable & weather resistant

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Lake Ballinger Park
Metal Fence

Advantages:
• Aesthetically pleasing using a natural color of paint
• Clear border to prevent human disturbance

Disadvantages:
• Expensive installing cost
• Prone to corrosion during flood season if not being painted

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