Lord Hill Regional Park Preferred Plan Update

November 2021
Agenda: 6pm to 8pm

- Overview of Meeting & Introductions - 5 min
- Goals & Overview of the Preferred Plan Process – 5 min
- Wayfinding & Trail Design – 5 min
- Trail system map – 25 min
- Parking Lot Expansion concepts – 5 min
- Q&A – 1 hr 15 min
Meeting Code of Conduct

Using welcoming and inclusive language
- Being respectful of differing viewpoints and experiences
- Try to frame comments positively and around what improvements can be made at the Park
- Focusing on what is best for the community
- Showing empathy towards other participants

Unacceptable behavior
- Harassment, bullying, and intimidation
- Any activity meant to convey or cultivate hostility
- Insults, or other attacks
- Encouraging the above behavior
Introductions - Presenters

Snohomish County Parks Staff

• Emily Griffith, Senior Park Planner
• Rose Intveld, Communications Specialist
• Jeremy Husby, Division Manager
• Sharon Swan, Capital, Land and Planning Manager and Partnerships

J.A. Brennan Associates

• Jim Brennan, Principal
• Tanja Wilcox, Project Manager

Lord Hill Regional Park Preferred Plan Update
November 2021
Goals & Process
Lord Hill Regional Park

- Island of nature in the urban fabric of Snohomish County
- 1,480 acres with 32 miles of trail
- Regional Park - recreation destination throughout the County
- Hikers, runners, equestrians, mountain bikers, bird watchers, orienteering groups, native plant enthusiasts, & more
Lord Hill Regional Park
Preferred Plan Update
November 2021

Building on Past Process

- Preferred Plan Update began 2016
  - 2 public meetings
  - 9 stakeholder meetings
Goals

- Improve safety throughout the park through trail design and improved wayfinding for park users and emergency services
- Support a positive, shared recreational experience among multiple user groups
- Preserve the natural areas and character of the park
- Update the park to accommodate its capacity and role as a regional park while caring for the environment
Outcome of Preferred Plan Process

• Preferred Plan
  • Official trail plan
    • Critical Area studies at new trail crossings
    • Critical Area reconnaissance along new trail alignments and along particular trails of concern
  • Future parking lot expansion & roadway repair
    • Supported by geotechnical investigation
  • Narrative

• Wayfinding and Signage Plan
Focus of Meeting

• Overview of the proposed trail system & updates
• Trail Design Standards
• Trail Intersection Safety
• Potential parking lot expansion options
Consultant Team Info
Team

• JA Brennan Associates – Landscape Architects & Planners
• DCG Engineers
• Landau Assoc. Geotechnical Engineers
• Raedeke Environmental
• Harmsen Surveyors
Similar Experience
Understanding the Park
Trail Standards
Trail Standards

- **USFS Trail Standards**
  - Equestrian, hiker and bicycle trail design
  - Guide trail crossing & intersection design
  - Separation of uses
  - Environmental protection

- **IMBA (International Mountain Bike) Standards**
  - Cross-reference for features for mountain bike trails
  - Creating and maintaining sustainable mountain biking opportunities
**Trail Class Matrix** (FSH 2353, Section 14.2, Exhibit 01)

Trail Classes are general categories reflecting trail development scale, arranged along a continuum. The Trail Class identified for a National Forest System (NFS) trail prescribes its development scale, representing its intended design and management standards. Local deviations from any Trail Class descriptor may be established based on trail-specific conditions, topography, or other factors, provided that the deviations do not undermine the general intent of the applicable Trail Class.

Identify the appropriate Trail Class for each National Forest System trail or trail segment based on the management intent in the applicable land management plan, travel management direction, trail-specific decisions, and other related direction. Apply the Trail Class that most closely matches the management intent for the trail or trail segment, which may or may not reflect the current condition of the trail.

<table>
<thead>
<tr>
<th>Trail Attributes</th>
<th>Trail Class 1 Minimally Developed</th>
<th>Trail Class 2 Moderately Developed</th>
<th>Trail Class 3 Developed</th>
<th>Trail Class 4 Highly Developed</th>
<th>Trail Class 5 Fully Developed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tread &amp; Traffic Flow</td>
<td>• Tread intermittent and often indistinct</td>
<td>• Tread continuous and discernible, but narrow and rough</td>
<td>• Tread continuous and obvious</td>
<td>• Tread wide and relatively smooth with few irregularities</td>
<td>• Tread wide, firm, stable, and generally uniform</td>
</tr>
<tr>
<td></td>
<td>• May require route finding</td>
<td>• Single lane, with allowances constructed for passing</td>
<td>• Single lane, with allowances constructed for passing where required by traffic volumes in areas with no reasonable passing opportunities available</td>
<td>• Single lane, with frequent turnouts where traffic volumes are low to moderate</td>
<td>• Single lane, with frequent turnouts where traffic volumes are moderate to high</td>
</tr>
<tr>
<td></td>
<td>• Single lane with no allowances constructed for passing</td>
<td>• Typically native materials</td>
<td>• Native or imported materials</td>
<td>• Double lane where traffic volumes are high and passing is frequent</td>
<td>• Double lane where traffic volumes are high and passing is frequent</td>
</tr>
<tr>
<td></td>
<td>• Predominantly native materials</td>
<td></td>
<td></td>
<td>• Native or imported materials</td>
<td>• Commonly hardened with asphalt or other imported materials</td>
</tr>
<tr>
<td>Obstacles</td>
<td>• Obstacles common, naturally occurring, often substantial and intended to provide increased challenge</td>
<td>• Obstacles may be common, substantial, and intended to provide increased challenge</td>
<td>• Obstacles may be common, but not substantial or intended to provide challenge</td>
<td>• Obstacles infrequent and insubstantial</td>
<td>• Obstacles not present</td>
</tr>
<tr>
<td></td>
<td>• Narrow passages; brush, steep grades, rocks and logs present</td>
<td>• Blockages cleared to define route and protect resources</td>
<td>• Vegetation may encroach into trailway</td>
<td>• Vegetation cleared outside of trailway</td>
<td>• Grades typically &lt; 8%</td>
</tr>
</tbody>
</table>
### Trail Design Parameters

**Bicycle** (FSH 2309.18, Section 23.13, Exhibit 01)

Design Parameters are technical guidelines for the survey, design, construction, maintenance, and assessment of National Forest System trails, based on their Designed Use and Trail Class and consistent with their management intent. Local deviations from any Design Parameter may be established based on trail-specific conditions, topography, or other factors, provided that the deviations are consistent with the general intent of the applicable Trail Class.

<table>
<thead>
<tr>
<th>Designed Use</th>
<th>BICYCLE</th>
<th>Trail Class 1</th>
<th>Trail Class 2</th>
<th>Trail Class 3</th>
<th>Trail Class 4</th>
<th>Trail Class 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design Tread Width</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Lane</td>
<td>6” - 12”</td>
<td>12” - 24”</td>
<td>18” - 36”</td>
<td>24” - 48”</td>
<td>36” - 60”</td>
<td></td>
</tr>
<tr>
<td>Double Lane</td>
<td>36” - 48”</td>
<td>36” - 48”</td>
<td>36” - 48”</td>
<td>48” - 84”</td>
<td>72” - 120”</td>
<td></td>
</tr>
<tr>
<td>Structures (Minimum Width)</td>
<td>18”</td>
<td>18”</td>
<td>36”</td>
<td>48”</td>
<td>60”</td>
<td></td>
</tr>
<tr>
<td><strong>Design Surface</strong></td>
<td>Type</td>
<td>Native, ungraded May be continuously rough</td>
<td>Native, with limited grading May be continuously rough</td>
<td>Native, with some onsite borrow or imported material where needed for stabilization and occasional grading Intermittently rough</td>
<td>Native, with improved sections of borrow or imported materials and routine grading Stable, with minor roughness</td>
<td>Likely imported material and routine grading Uniform, firm, and stable</td>
</tr>
<tr>
<td>Protrusions</td>
<td>≤ 24”</td>
<td>≤ 6”</td>
<td>≤ 3”</td>
<td>≤ 3”</td>
<td>No protrusions</td>
<td></td>
</tr>
<tr>
<td>Obstacles (Maximum Height)</td>
<td>24”</td>
<td>12”</td>
<td>10”</td>
<td>8”</td>
<td>No obstacles</td>
<td></td>
</tr>
<tr>
<td><strong>Design Grade</strong></td>
<td>5% – 20%</td>
<td>5% – 12%</td>
<td>3% – 10%</td>
<td>2% – 8%</td>
<td>2% – 5%</td>
<td></td>
</tr>
<tr>
<td>Short Pitch Maximum</td>
<td>30%</td>
<td>25%</td>
<td>15%</td>
<td>10%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Maximum Pitch Density</td>
<td>20% – 30% of trail</td>
<td>10% – 30% of trail</td>
<td>10% – 20% of trail</td>
<td>5% – 10% of trail</td>
<td>0% – 5% of trail</td>
<td></td>
</tr>
<tr>
<td><strong>Design Cross Slope</strong></td>
<td>Target Cross Slope</td>
<td>5% – 10%</td>
<td>5% – 8%</td>
<td>3% – 8%</td>
<td>3% – 5%</td>
<td>2% – 3%</td>
</tr>
<tr>
<td>Maximum Cross Slope</td>
<td>10%</td>
<td>10%</td>
<td>8%</td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>
Trail Class 3: Tread — The tread is continuous and obvious.

Trail Class 3: Constructed Features — Constructed features such as walls, steps drainage, and raised trail, may be common and substantial.

Trail Class 3: Obstacles — Obstacles may be common. Vegetation is cleared outside of the trailway.
Trail Class 4

Trail Class 4: Tread—The tread is wide and relatively smooth, with few irregularities.

Trail Class 4: Obstacles—Obstacles are infrequent and insubstantial. Vegetation is cleared outside of the trailway.
# Equestrian Trails:

<table>
<thead>
<tr>
<th>Designed Use</th>
<th>Trail Class 1</th>
<th>Trail Class 2</th>
<th>Trail Class 3</th>
<th>Trail Class 4</th>
<th>Trail Class 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACK AND SADDLE</td>
<td>Typically not designed or actively managed for equestrians, although use may be allowed</td>
<td>May be up to 48” along steep side slopes 48” – 60” or greater along precipices</td>
<td>May be up to 48” along steep side slopes 48” – 60” or greater along precipices</td>
<td>May be up to 48” along steep side slopes 48” – 60” or greater along precipices</td>
<td>Typically not designed or actively managed for equestrians, although use may be allowed</td>
</tr>
<tr>
<td><strong>Design Tread Width</strong></td>
<td><strong>Wilderness (Single Lane)</strong></td>
<td><strong>12” – 18”</strong></td>
<td><strong>18” – 24”</strong></td>
<td><strong>24”</strong></td>
<td><strong>24” – 96”</strong></td>
</tr>
<tr>
<td><strong>Non-Wilderness (Single Lane)</strong></td>
<td><strong>12” – 24”</strong></td>
<td>May be up to 48” along steep side slopes 48” – 60” or greater along precipices</td>
<td>May be up to 48” along steep side slopes 48” – 60” or greater along precipices</td>
<td>May be up to 48” along steep side slopes 48” – 60” or greater along precipices</td>
<td></td>
</tr>
<tr>
<td><strong>Non-Wilderness (Double Lane)</strong></td>
<td><strong>60”</strong></td>
<td><strong>60” – 84”</strong></td>
<td><strong>60”</strong></td>
<td><strong>84” – 120”</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Design Grade</strong></td>
<td><strong>Target Grade</strong></td>
<td><strong>5% – 20%</strong></td>
<td><strong>3% – 12%</strong></td>
<td><strong>2% – 10%</strong></td>
<td><strong>Typically not designed or actively managed for equestrians, although use may be allowed</strong></td>
</tr>
<tr>
<td><strong>Short Pitch Maximum</strong></td>
<td><strong>30%</strong></td>
<td><strong>30%</strong></td>
<td><strong>20%</strong></td>
<td><strong>15%</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum Pitch Density</strong></td>
<td><strong>15% – 20% of trail</strong></td>
<td><strong>5% – 15% of trail</strong></td>
<td><strong>5% – 10% of trail</strong></td>
<td><strong>5% – 10% of trail</strong></td>
<td></td>
</tr>
</tbody>
</table>
Critical Area Studies & Reconnaissance
• Reconnaissance will be required along new trails

• Potential new trails that are identified near sensitive areas will be reviewed by our environmental team

• Temple pond trails
• River trails
• Stream crossings
• Other existing trails may also have critical areas identified
Updated Draft Trail Plan
Prior Alternative 1

- Preferred Plan Update Alternative 1 was developed over 5 years with extensive stakeholder and public input.
- Solid foundation to build on
- Refinement is the current stage in the process.
Zones

- Bikes in northwest corner
- Equestrians in southeast
- Regional Conservation - south
- Hikers in south and central

- Multi-use spines
- Multi-use connections to key points of interest

- Safety improvements
- Conflict reduction

Lord Hill Regional Park Preferred Plan Update
November 2021
Updated Draft Trail Plan

- Overview map
- Similar to prior version
- Updates based on further discussion with:
  - Stakeholders
  - Community
  - County rangers
  - Consultant team
- Refinement of prior plan
- Trails plan – exaggerated scale, for graphic legibility – actual footprint is small on the park landscape
- Meet needs of all users in a balanced way
## Trail Mileage Summary

### Lord Hill Current Trail Use Plan Update

<table>
<thead>
<tr>
<th>Use Type</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Use</td>
<td>11.43</td>
</tr>
<tr>
<td>Hiker Only</td>
<td>8.05</td>
</tr>
<tr>
<td>Equestrian/Hiker Only</td>
<td>6.34</td>
</tr>
<tr>
<td>Bikes Only</td>
<td>2.26</td>
</tr>
<tr>
<td>Bikes/Hiker Only</td>
<td>3.62</td>
</tr>
<tr>
<td>Utility/Neighborhood Access</td>
<td>1.03</td>
</tr>
<tr>
<td>Decommission</td>
<td>2.93</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32.73</strong></td>
</tr>
</tbody>
</table>

### Total Trail Miles by Use Type

<table>
<thead>
<tr>
<th>Use Type</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiker</td>
<td>29.44</td>
</tr>
<tr>
<td>Equestrian</td>
<td>17.77</td>
</tr>
<tr>
<td>Bikes</td>
<td>17.31</td>
</tr>
</tbody>
</table>
Trail System for Different User Groups
Updated Draft Trail Plan

• All trails

Legend
- Multi-Use
- Hiker Only
- Hiker Only - Proposed/Reroute (CA Study)
- Equestrian/Hiker Only
- Proposed - Equestrian - Hiker Only (CA Study)
- Bikes - Hiker Only
- Bikes Only
- Bikes Only - Reroute
- Utility - Neighborhood Access
- Decommission
Multi-use Trail System

• Access for all to key features and points of interest
  • Temple Pond
  • Cell Tower Access
  • River Trail
  • 11 miles of Multi-use trail
Hiker Trail System

Includes:

- Multi-use Trails
- Bike – Hiker Only Trails
- Equestrian – Hiker Only Trails

- Hiker Only Trails: 8.05 miles
- Total Hiker Access: 29.43 miles
Equestrian Trail System

Includes:

- Multi-use Trails
- Equestrian – Hiker Only Trails
- Equestrian/ Hiker Only Trails: 6.34 miles
- Total Equestrian Access: 17.77 miles
Biker Trail System

Includes:

- Multi-use Trails
- Bikes – Hiker Only Trails
- Bikes Only Trails

- Bikes Only Trails: 2.26 miles
- Bikes – Hiker Only Trails: 3.62 miles
- Total Bikes Access: 17.31 miles
Design Toolkit
for Intersection Improvements

- Off-set trail & slope reversal
- Pine rail / gate for traffic calming
- Trail signage for safety
Design Toolkit:

- Off-set trail & slope reversal

Existing unimproved intersection of multiple trails
Design Toolkit:

- Pine rail / gate for traffic calming

Existing pine rail gate at trail intersection
Design Toolkit:

• Signage combination:
Design Toolkit:

Signage for Intersection Safety

- Yield signs at intersections
- Trail merging ahead
- Trail crossing ahead
- Slow speed, hikers & horses ahead
- Trail etiquette sign
Schematic Intersection Improvements Plan:

- Already Implemented Intersection Improvements
- Intersection Safety Signs (e.g. Trail crossing/ merging/ slow/ horses ahead)
- Physical Construction for Safety
Schematic Intersection Improvements Plan - South
Gateway Area
NORTH PARKING LOT
Parking Lot Expansion Feasibility

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Parking Lot Expansion Feasibility

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November 2021
Next Steps
Next Steps

- Online survey to be released in conjunction with public meeting
- February/March 2022 another round of Stakeholder and Public Meetings
- Finalize Preferred Plan by June 2022 when grant funding expires
Questions & Discussion

• The rest of the meeting, minus a few minutes at the end to wrap up, have been left open for a dialogue with the community
• We would like to leave space for as many people to speak as possible, so all speakers will be limited to two minutes for questions and comments
• Please keep in mind our community guidelines, try to keep comments framed towards opportunities and solutions, and focused on what the Preferred Plan can resolve
• As time allows, people may share more than once
ONLINE:
1. Staff will indicate that the floor is open for comments or questions from the public.
2. To virtually “raise your hand,” click “Participants” in the Zoom control box and select “Raise Hand” in the grey box on the bottom of the participants box.
3. Staff will ask if any “hands are raised” and each person will be called upon by name or ID as shown on the screen, in the order that their hands were raised.
4. Staff will tell you to unmute your mic to speak and “lower your hand.”
5. When it’s your turn to speak, clearly state your full name for the record. All speakers will be limited to two minutes to provide comments or testimony.
6. When you are done speaking, Council staff will mute your mic.

BY PHONE:
1. Staff will indicate that the floor is open for comments or questions from the public.
2. To virtually “raise your hand,” press *9 on your phone.
3. Staff will ask if any “hands are raised” and each person will be called upon by name or by the last four digits of the phone number shown on the screen, in the order that their hands were raised.
4. Staff will tell you to unmute your mic to speak and “lower your hand.”
5. When it’s your turn to speak, clearly state your full name for the record. All speakers will be limited to two minutes to provide comments or testimony.
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