

Lost Falls Community Forest (LFCF)- Post Falls, Idaho
Recreational Trails - Element to the Forest Stewardship Plan
Draft Feasibility Study for Select Routes - Provided by Daniel Collins-Nicoterra Trails for City Parks Dept.

Conceptual Plan

To provide for non-motorized recreational access throughout the Lost Falls Community Forest (LFCF) of 481 acres and enhanced conservation of natural resources is best developed through a dispersed system of trails. The connections with Q'emiln Trail Park and its popularity, the centrality of site to downtown Post Falls, the attractiveness of the site for Spokane River boating access, the natural state of the landscape, and the long term growth of the community are all factors which condition for a site of moderate to high recreational use in a park of regional appeal.

Many trails conceptually will have a multi-user base getting to particular destinations such as down by the River and also owing to the wide existing logging roads which are requested to be part of the trail system. Old logging roads and wagon roads need improved surfaces and better drainage or they will be maintenance intensive.

Based on the large public park LFCF, the multiple recreational qualities and the dual role as a public utilities treated water discharge unit, it is believed the site should be designed and developed for trails in Phases: three(3) Phases. An initial Phase I will gain access to many key destinations, address existing road grade issues, and create at least three loops, Phase II will extend one loop to the farthest north location, fill in smaller areas, and decommission or close off non-functional trails in Q'emiln Trails Park and other roadway spots. Phase III will address additional community needs and focus on building trails in the Kroetch property. The overall concept is to create a quiet hike-able woodland, where one can experience solitude, nature and enjoy different recreational activities. Careful planning will ensure that particular areas of the site are not overused or abused.

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Objectives:

- Design a system of trails that serves the longterm needs of Post Falls residents and the region in a multiple use Community Forest
- Disperse trails within the natural environment to minimize impact, enhance the feeling of solitude, and create opportunities for way-finding
- Multi-Use trails with variety in trail standards, single-use cross-country hiker, mountain biking, shore walking, way-finding
- Design loops to minimize back and forth hiking, biking
- Conserve cultural history: wagon road and mine site

Existing Conditions:

The Kroetch property and Q'emiln Park within the City limits and the newer Thompson and the May properties form a unified landscape to recreate for hours within the sphere of this size city. The LFCF is 1 mile from downtown as the crow flies and is easily reached via the Spokane Street bridge. Furthermore, access from Interstate 90 is direct once on Spokane Street. Riverview Drive, a major east-west collector street front the park's south side. The only other city park which has multi-use trails is Black Bay, fronting the north side of the Spokane River and experiencing heavy use in it's near shore environment.

The LFCF woodlands contain an open ponderosa pine over-story with topography of moderate slopes facing north and ravines trending to northwest; as in the 5th flow. However, there are vertical rock cliffs and these offer potential regional destinations for rock climbers accessing these routes through foot travel or mountain bikes, once in the park. These rock cliffs also pose a risk of inadvertent falls by the unwary.

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The Parks and Recreation Master Plan - 2012 references a community survey where mention of trail maintenance, upkeep, and trash were concerns at Q'emiln Trails Park. This could be a bell-weather for LFCF, and may prompt the placement of trash receptacles and regular trash pickup. The Plan, listed comments about more boat launch capacity in city parks which could stimulate thinking for LFCF into cross river boat access points. Finally, in the Parks Plan, a priority had been made for the Corbin Park Ditch Property: and Design and Construction of a River Trail to enhance recreation there. It appears there are needs for water trails.

Sources:

Site reconnaissance

City of Post Falls Parks Department staff

Review of Post Falls Parks and Recreation Master Plan - survey and recommendations

Review of Post Falls City Maps online

Trail Destinations:

- Shore walk along the Spokane River could include protective coves, and unique rocky shorelands
- Rock climbers wall and Outlaw Wall (unclear of naming nomenclature) both for users and viewers
- North and South ponds for wildlife viewing
- Potential for a grand loop of 2+ miles

Private Lands:

- City of Post Falls may consider exploring easement access among some of the adjoining private property owners to expand the public benefits particularly within the Kroetch property and ease the trespass concerns
- Minimum corridor widths should be 20'
- Fencing (unobtrusive) at public-private boundaries to guide recreational users - recommend cedar split rail of short runs

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Opportunities:

- Off Street Parking - create 4-5 car spaces on the Kroetch property where topography allows: recommend evaluation of first gate crossing
- Off Street Parking - create 4-5 car spaces on the May property at point C on the west side of road
- On Street Parking - on Riverview Drive where sight-lines allow: recommend posted speed limit reductions on Riverview Drive along public lands
- On Street Parking near Point A: recommend a simple pullout with the potential to expand into Off Street against the eastern property line
- Wayfinding potential on either the eastern peninsula or the western peninsula
- Shoreline point destination on map could afford an opportunity for water trails, and shore hikes
- Recommend methods to reduce social trail development, cutting switchbacks - engaging the users and erecting split rail cedar fencing to guide users
- Provide interpretive signage of the cultural history, e.g. wagon road and mine. A thorough investigation of all the geologic, cultural, and historical qualities should be conducted prior to any cut and fill development. These investigations could occur during Phase I. Such site qualities could become future points of interest

Constraints:

- slopes of 50% or more and areas of high exposure: several locations will involve switchbacks, climbing turns and extra rock armoring to sustain trail use on steep slopes; these limit feasible trail widths to 24"; see map
- near shore trail access within 100' of the high water mark on the Spokane River - refer to Idaho State Forest Practices
- locations with high levels of invasive plants
- parking on Riverview Drive

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Alternatives:

- in general, alternatives were not explored in this initial effort:
it is recommended that a thorough exploration of alternatives be made as resources are available

Standards:

- Single-Use 24" trail tread to Multiple Use 36-48" trail tread and the dual track road
- Construction with hand tools, "light on the land" approach, local materials-mineral soils and available stone typical of USFS Trails Standards
- Incorporate existing logging roads and obvious bench work in design to economize and reduce environmental impact; improved surface flow design should be incorporated on these roads: including ditching drainage off road-best at switchbacks, out-sloping and filling in low spots
- Maintain trail grades below 20% with a 5% outslope where the grades exceed 10%
- Full Bench trail construction is called for where trail must climb steep slopes: this implies building the trail on the cut slope; no fill. Applying fill for trail tread on steep slopes is unstable and prone to failure. Because the construction type involves a radical cut, the back-slope has to be excavated deeply so that the finished back- slope is less than 1:2 rise to run above the trail and does not settle into the path below. Therefore a 2' tread may require up to 4' of cut depending on the topography, soil, and geology. Full bench construction is part of the technique of gaining higher ground, the other is building switchbacks.

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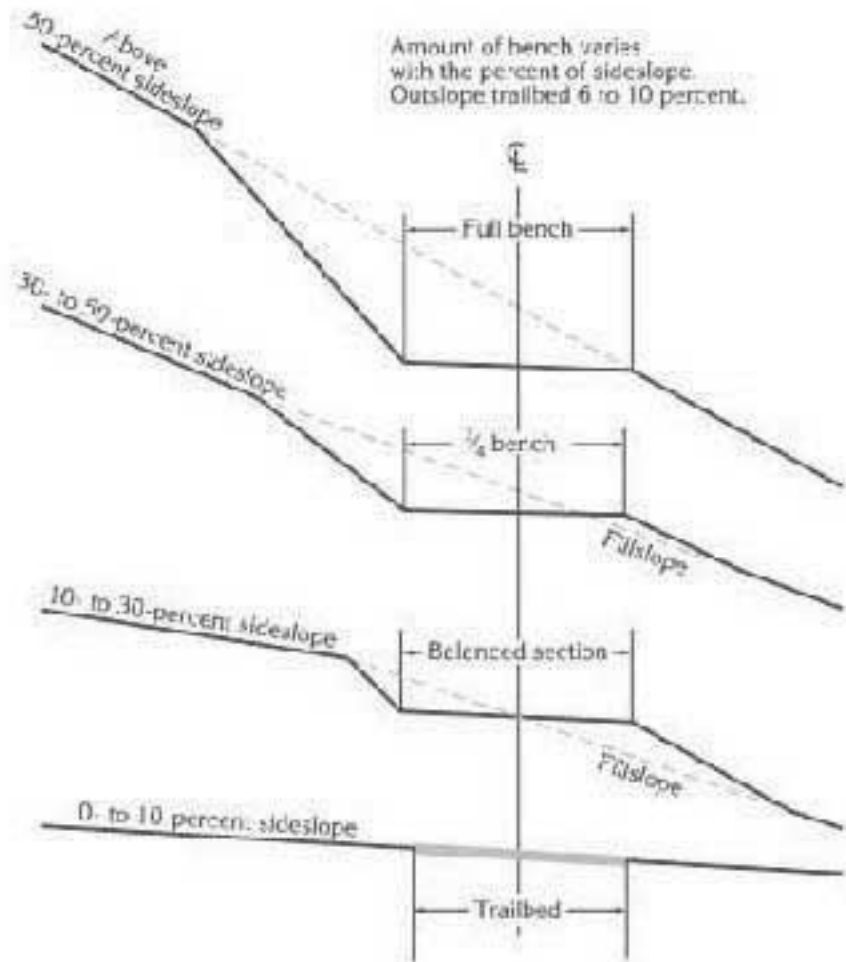


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Typical Trail Cross Sections



Phase I

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Shoreline Trail - 3,200',
Logging road loop - 11,000' surface condition upgrades, drainage
May-Thompson short connect - 750' existing bench
5th Flow Cross-country - 5,000'
Total distance - 19,950'

Phase II

Riverview Drive Parallel connect Point A-B-C - 5,250'
Point B to logging road - 1,000'
Thompson-Kroetch southern connect - 600'
Logging road from Point A - 2,200' surface condition upgrades, drainage
Expand logging road loop north - 5,500'
Total distance - 14,550'

Phase III

Pond trail expansion within topographical limits - 500'
Kroetch property - mine access, outer peninsula loop, west finger - 2,000' new 2,000' road grade
Decommissioning trails 500' random locations
Additional Community trail links - tbd
Total distance - 5,000'

TOTAL TRAIL LENGTH: 39,500' or 7.5 miles

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Schedule - Draft Forest Stewardship Plan with Trail Element Nov 1, 2016

Accepted Conceptual Plan Overall	November 2016
Public Review Permitting	January 2017
Identify and Secure Funding	January 2017
Design Approval	April 2017
Construction	May 2017

Work Program

- Present Phase I, II, and III to the city/community
- Trail development notification
- Stage materials and remove trash below Riverview Drive
- Repair key logging roads: drainage structures-ditching, resurfacing, and compaction as needed
- Close and decommission to the extent feasible other roads if clearly of no trail value - propose these for native plant enhancements
- Phase I work begin with shoreline trail
 - design development - pin flag route
 - clear and grub taking care to replant where possible, mulch, and water
 - cut and shape trail bed
 - outslope or crown and compact and armor where needed
 - stage quarterly site staff review

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Cost Estimates -

	Phase I	Phase II	Phase III
Portion of Overall Trail Design-Development	51%	33%	16%
Design - Review - Permitting**	3,600	2,300	1,100
Materials - Cedar Split Rail/gravel	5,000	2,500	2,500
Signage-Directional/Orientational	\$20,000	\$5,000	\$5,000
Kiosks - initial plan for two (2) - with maps, bulletins, nature materials	\$10,000		
Secure site - Install BMP's			
Equipment			
Trail Labor&Management (TLM) *	\$115,600	\$85,600	\$40,000
Stonework contingency 15% of TLM	\$17,340	\$12,840	\$6,000
Turnpike contingency 15% of TLM	\$17,340	\$12,840	\$6,000
TOTAL	\$188,880	\$121,080	\$60,600

GRAND TOTAL \$370,560

** Assume 2% of total construction costs

* Rate of \$8 per lineal foot, used by Pacific Northwest Trail Association (PNTA)- cost to build to USFS primitive trail standards. Costs vary depending on work group, trail width, and terrain. Logging road cost to improve surface and drainage, etc are reduced to \$4 per lineal foot. This latter work assumes mechanical treatment and City force account labor

Stonework contingency would include any skilled work with setting stone for steps or hauling stone to a site
Turnpike contingency would include the construction of turnpike beyond the 40' initially needed for the 5th Flow

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Recommendations:

A Phased Trail Project is a Project Bound for Long-term Success

- changes the focus to quality from speed of execution
- enables more community input and user feedback
- provides a gauge to the public sector on maintenance costs
- better approach for multi-purpose trails - in determining needs

Existing Logging Roads have issues, address these first

- inadequate number of culverts below grade, therefore sheet runoff has formed surface flows and eroded one or more tracks, this condition will intensify with the impact of hikers, mountain bikes, and utility vehicles
- those abandoned roads that are not part of the trail plan should be decommissioned as feasible: decommissioning can include 1)mechanically scarifying the road surface, 2)restoring the surface drainage shape to reduce surface erosion, 3)applying topsoil-mulch to future planted areas as feasible, 4)placing woody debris and appropriate native plants with a watering plan to establish plant success
- roads to be used for trails and utility access could be improved through some leveling and removal of protruding stone addition of 5/8" minus gravel
- with a dual track roadway one track could be used primarily by mountain bikes and another track (ideally the upper less eroded track) could be used by hikers

Trash and Debris at the Base of Riverview Drive must be Removed-Good Neighbors

- estimates could be 10 yards of trash from illegal dumping, in addition to crushed cars, wheels from accidents
- this step would enhance the user experience locally and regionally and would advance the ecological restoration trajectory

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- there are three(3) out-parcels within the Kroetch Property and other adjoining private parcels throughout the Lost Falls project site that could benefit by the initiative of City of Post Falls installing a simple cedar split rail fencing where hikers may be prone to leave the trail and trespass. This will be less expensive than being forced into installing chainlink fencing after an issue occurs

Funding:

The Parks and Recreation Plan list these sources for a variety park priorities related to trails

Impact Fees or Public Utility transfer payments

Recreational Trails Program Grant

General Fund

AVISTA

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