

**Golden Horseshoe Nordic Assessment  
Executive Summary  
Draft**

**I. Introduction**

Without question, an exceptional Nordic infrastructure can be developed in the Golden Horseshoe. One important benefit will be increased viability of the Gold Run Nordic Center.

Topography, snowfall, historic relics, an extensive matrix of old roads, a variety of access options, and a convenient “backyard” location provide an uncommon list of recreation and education assets applicable to many types of trail uses. Simply put, the natural appeal is powerful.

Application of all these assets is discussed briefly below and at great extent in the main report. Suffice it to say that our focus and recommendations lean heavily toward favoring non-motorized use(s). But we also believe that significant sharing with motorized uses will be important to the success of any management policy.

In addition, we advocate a mix of existing road (for all uses) and new state-of-the-art trails (primarily for non-motorized uses). This would be a fundamental element in the final master plan, as would phased development of ultimate build-out. At present it seems that significant adjustments in “backcountry” zoning guidelines will be necessary in order for restorations, alterations, abandonments, and new construction to proceed.

**“We are faced with insurmountable opportunities.”**  
(Pogo)

**II. Assessment of Golden Horseshoe Qualities**

**Terrain**

By local standards, the Golden Horseshoe is an archipelago of small mountains or “hills.” Elevations range from around 9,200’ at Delaware Flats to 11,370’ on the summit of Brewery Hill. Most of the *primary useful trail zone* (not counting the Gulches) is found at elevations between 9,500’ and 10,500’ and in slope areas under 20 %. However, routings for footpaths (i.e., narrow, ungroomed trails) will often use terrain in much steeper zones, further increasing the property’s trails potential.

## **Soils**

The durability of many old roads suggests, for the most part, that the native soils are adequate for Class 1 (state-of-the-art) trail development. Soil characteristics further imply that road/trail construction (i.e., mining soils, building bases, grading surfaces) will not be especially difficult in most areas suggested for trail zones.

Some areas with especially sandy and/or rocky soil may need to be stabilized, abandoned, or avoided altogether. A number of construction techniques can be used to mitigate these conditions where necessary, including use of newer stabilization fabrics and devices. In some areas, mine tailings might be used for trail base construction; but many may be unsafe, unsuitable, or their use would damage an important historic site.

Much of the property has enough soil depth that subsoil could be mined from small pits, as needed, along a trail corridor. Some gravel surfacing may be necessary in places.

## **Vegetation**

The monoculture-dominant forest of the Golden Horseshoe is somewhat anemic in terms of botanical and biological diversity. Although there is potential to create more variety, currently the area lacks substantial ecologic “edge.” Vegetative diversity plus greater range in sizes, character, and numbers of openings, etc., will enhance wildlife and plant habitat as well as provide more aesthetic appeal and educational opportunities.

Even-age forest cover on the Golden Horseshoe further exacerbates sustainability of its ecosystem by making the area especially susceptible to fire and disease. The apparent imminent invasion of the mountain pine beetle will likely denude much of the property, rendering it less than appealing and more susceptible to damage by recreational uses.

A forest management plan with priorities given to forest health, resource protection, habitat improvement, and aesthetics, will be especially important along trail/road corridors and dalliance surroundings.

## **Existing Roads**

The existing road and trail network in the Golden Horseshoe is fraught with both problems and exceptional possibilities, as it relates to development of a viable trail system. Variable widths, unduly impactful and/or unnecessary routing, and degradation problems have helped to create a bucket of reasons why development of a state-of-the-art trail network should leverage opportunities to mitigate such conditions.

Much of the existing network should be incorporated into the trails plan and partnered with new sustainable trails whenever it makes economic, environmental, aesthetic, and recreational sense. As such, a trails master plan should be a *tool* that identifies corridors and corridor sections needing improvement, restoration, abandonment, and/or alterations.

## **Historic & Natural Assets**

The Golden Horseshoe has an amazing inventory of points-of-interest, most of them historic mining areas. Natural features, too, such as Lincoln Park, aspen groves, beaver flowages in Gold Run Gulch, and the unique Brown Gulch ravine provide another dimension of fascination and educational opportunities.

In combination with created trailside *dalliances* (natural or man-made features that gives trail travelers reasons to pause or “dally”), special features can also help in controlling dispersal and slowing the speed of trail travel, which in turn slows *consumption* of the trail product. When designed well and strategically employed, these advantages can substantially increase the system’s comfortable carrying capacity, its level of appreciation, and interpretive/educational absorption, while encouraging multiple visits.

Appreciation and understanding is tantamount to security for important features.

## **Property Ownership**

Decisions regarding use priorities, types of facilities, extent of development, and operational responsibilities have thus far been a complex philosophical wrestling match.

From our perspective, however, the nature of the Golden Horseshoe resource, its location, and its potential all favor a significant trails-focused recreation development with Breckenridge as the lead agency. The Town has the resources, experience, and proximity suited to managing a backcountry “forest park.” For a town that essentially wraps its residential arms around it... it’s very nearly a “*central*” park.

We assume that continued oversight by the other agencies and the public will, in some fashion, be part of an on-going monitoring and assessment mechanism.

Even so, we strongly recommend consideration be given to establishment of a non-profit foundation. The foundation can assist in on-the-ground management, policy adjustments, fund-raising, educational programs, and other support and program services. Partnering this type of public involvement with agency management has proven to be highly successful across the country. National Parks, Rails-to-Trails, National Forests, municipal park systems, hut-to-hut systems, etc., have all adopted similar partnerships without which success of a trails infrastructure and operation would not be possible.

In whatever manner it is defined politically, the bulk of the Golden Horseshoe is now *publicly* owned.

## **Backcountry Zoning**

Given the spectrum of the Golden Horseshoe’s recreation potential, strict adherence to current “backcountry” zoning restrictions would greatly limit its public value and the best chance for building appreciation, respect, and security for its natural gifts.

Some things to consider:

- *Golden Horseshoe Ordinance*: allows development latitude for ideal “green,” sustainable, state-of-the-art trails, support facilities, and services.
- *Guidelines*: acknowledge and justify a recreational infrastructure that works as an uncommon transition between a town forest and a *forest park* experience.
- *Forest Management Plan*: with priorities for aesthetics, forest health, resource protection, and desirable recreation use.

Exemplary, sustainable trails infrastructure design and construction delivers an inherent message that “done well is done right”... and ecologically respectful.

### **III. Trail System Design**

Nothing can guarantee quality performance of a trail (or any other product) more than quality design and construction. Good trail design anticipates the footprint, the spot, and the best means to accommodate the footfall under the worst possible conditions.

#### **State-of-the-Art Justification**

A “minimum build/minimal investment” approach to trail development (or simple renovations of existing roads for state-of-the-art trail performance) could become the latest version of a legacy of abuse in the Golden Horseshoe. Minimum-build can only minimize impact when use is minimal... and sometimes not even then. More often, minimum-build is a short-term loan with ever-increasing and endlessly revolving debt.

Justifications for state-of-the-art trail design and construction include:

- Optimum recreational utility of the Golden Horseshoe
- Respectful and sensitive utility of the property
- Quick, thorough healing of construction disturbance
- Assurance of aesthetic “fit”
- Structurally secure road/trails; prevention of serious future impacts
- Mitigation of existing road/trail problems
- Minimization and facilitation of maintenance requirements
- Grooming safety and efficiency
- Safety and enjoyment of trail travelers

Excellent, sustainable and quality performance trails (for *all* uses) should be the guiding measure for development of an infrastructure in the Golden Horseshoe. Anything less will be disrespectful, wasteful, and long-term costly.

#### **IV. Trail Design**

Any sustainable trail corridor consists of up to five basic elements:

1. *Trail Float*: total level surface, including grassed/stabilized shoulders, that can be groomed for winter use
2. *Travel Surface*: the compacted dirt or gravel surface between flat shoulders
3. *Drainage Ditch*: usually on one side (as required)
4. *In-Slopes*: stabilized uphill bank (as required)
5. *Out-Slopes*: stabilized downhill bank (as required)

Protection and stability of abutting vegetation needs to be an inherent consideration.

#### **Trail Category Specifications**

Corridor width (trail clearing), routing, extent of construction, degree-of-difficulty and level of grooming (if any) are qualities that define trail categories within a hierarchy. The 3-tiered hierarchy recommended for a Nordic network in the Golden Horseshoe is detailed below. Each category provides a unique type of experience, is suited for targeted uses, and is typically tailored to fit the terrain and resource conditions of its routing.\*

**Note:** Nordic skiing includes *ski touring* (ungroomed trail); *cross-country* skiing (groomed trail); *telemark* skiing (groomed or ungroomed slopes). Cross-country skiing includes two techniques: *classical* (skiing in tracks); and *skating* (skiing on flat, packed surfaces).

1. *Narrow Ungroomed Trail (Foot Paths)*: These trails are intended for snowshoe and ski touring use.
  - Corridor width as much as 6' - 7'
  - Float as much as 4' - 5'
  - 2' - 3' summer travel surface*(Footpaths can often use slopes greater than 20 %.)*
2. *Narrow Groomed Trails*: Grooming would need to be done with a snowmobile. Trails are intended for a more “intimate” cross-country skiing experience.
  - Corridor width as much as 8'-10'
  - Float as much as 6' - 8'
  - Grooming width 4' - 6'
  - Summer travel surface 3' - 4'*(If there is no need for a drainage ditch or an in-slope, the corridor width could be as narrow as 7'-8'.)*
3. *Wide Groomed Trails*: These trails are the backbone of the proposed Nordic network. Grooming is done with a snowcat, and the surface may be tracked for cross-country skiing, packed for skating, or a combination of both.

The character of the Golden Horseshoe and its potential Nordic experience indicates that design specifications for “wide” trail corridors should be narrower than those at commercial operations in the valley. Suggested specifications include:

- Corridor width as much as 18’ - 20’
- Float as much as 14’ - 16’
- Grooming width 10’ - 12’
- Summer travel surface 8’+

*(If there is no need for a drainage ditch or an in-slope, the corridor width could be as narrow as 16’.)*

\*Whenever possible, groomed trail should be designed for 2-way travel. Snowshoeing is generally allowed on groomed trails as well.

## **V. Compatibility of Nordic Skiing & Snowmobiling**

Because of the complementary resource nature of non-motorized trail uses and the balance it will bring to the valley’s Nordic product, we recommend that the Golden Horseshoe be given a Nordic/non-motorized priority.... at the least, a substantial segregated use zone. However, we also recognize that some degree of co-existence with motorized uses should be planned.

To this end, we suggest that a modest designated network be considered for motorized uses within the Golden Horseshoe but also suggest that a number of these trails be shared by non-motorized uses. The motorized network will need to include through-routes for connections to the eastern Swan drainages, as well.

Although sharing trail is compromising *everyone’s* experience, the bulk of adverse impact falls on the non-motorized element. Even so, some shared trails in the Golden Horseshoe will be necessary, if for no other reason than to accommodate terrain and access needs that will likely coincide in some areas.

Grooming for shared use is less of a problem. Both skating and snowmobiling require a packed surface only, but tracks set for cross-country skiing (the dominant recommended Nordic use) need to be protected from both skaters *and* snowmobilers. This will require on-going education and a code of conduct. In some instances, it may also require wider shared trail and/or night-time grooming (allows tracks to set-up harder).

## **VI. Support Facilities & Services**

The best approach to developing facilities and services is usually a combination of phasing and test-driving concepts. Performance *triggers* (increased demand, unacceptable impacts, etc.) for subsequent phases will need to be established.

An exemplary, sustainable, and resource-respectful trail system will need to be balanced with services and support facilities of equal caliber. Facilities and services that reduce risks, optimize cost-benefits, minimize maintenance and operations costs, and generate revenue should be part of any development plan.

Examples of facilities to consider would include campsites, cabins, a wilderness lodge, a trailhead lodge, perimeter/satellite trail systems, and full-service trailheads. Services could include trail patrollers/rangers, guiding, instruction, educational programs, and shuttle system.

Planning trail-associated dalliances will be important as well. Dalliances can be a unique boulder, unusual plant, funny looking tree, toilet, humorous sign, interpretive sign, eagle's nest, picnic table, bench, observation platforms, fire-rings, shelters, wildlife blinds, etc.

Dalliances are extremely effective in creating educational opportunities, controlling impacts, providing user safety and conveniences, etc. Their value in enriching a recreation experience is incomparable. They have the unique ability to provide *signature* products and experiences that will help to differentiate the Golden Horseshoe from other trails-driven facilities.

Trails, support facilities, services, and dalliances are the all-important elements for a distinctive trail-focused recreation operation. To have one or two without the other(s) is like trying to eat steak without teeth.

**“All other things being equal, choose a toilet with a view.”**  
(Ian McHarg)

## **VII. Summary of Recommendations**

The highlights below list key proposals from our complete Nordic assessment report. These recommendations should be scrutinized and re-visited upon completion of detailed fieldwork, public input, and agency decisions.

### **Trail System Physical Elements**

- Select best topography for groomed trail (<20 %).
- Choose best zones for groomed trails: Peabody and upper bench, end of Tiger Summit Estates road, Lincoln Park, interior plateau.
- Identify historic and natural features to be avoided/protected.
- Assess existing roads for trail potential and issues.

### **Co-Existence of Motorized & Non-Motorized Uses**

- Designate segregated zones for Nordic/non-motorized use.
- Designate a modest zone/trail network and Swan connectors for motorized use.
- Identify snowmobile trails suited for sharing with Nordic use.

### **Trail System Character**

- Plan a 100km+/- Nordic trail system:
  - 40km+/- new trail
  - 60km+/- existing road/trail
  - 10km+/- existing *shared* road/trail
- Assemble system as a Nordic trails hierarchy:
  - 70km+ “wide” groomed trail
  - 30km+ “narrow” trail:
    - 20km+/- groomed
    - 20km+/- ungroomed
- Assign difficulty levels as follows:
  - 20km+/- Easier
  - 60km+/- More Difficult
  - 10km+/- Most Difficult
- Design trail system as follows:
  - State-of-the-art standards (see report appendices).
  - Build and designate trails for 4-season use.
  - Build and route trails for 2-way travel.
  - Focus on classic, intermediate level, cross-country skiing.
- Develop a forest management plan:
  - Focus on health, aesthetics and habitat improvement
  - Priority to aesthetic buffers on trail corridor sides, historic features and dalliances.

### **Access Points**

- Provide both primary and secondary formal access points.
- Close inappropriate random entry sites.
- Designate segregated access points for skiers and snowmobiles.
- Priority primary Nordic gateways:
  1. Gold Run Gulch & Peabody (including upper bench and upper road)
  2. End of road at Tiger Summit Estates
- Priority secondary Nordic gateways:
  1. Galena Gulch
  2. Brown Gulch
- Priority shared (Nordic/snowmobile gateway):
  1. Lincoln Park
  2. Tiger Run

- Provide modest satellite trail networks at the Peabody, Tiger Summit Estates, and Lincoln Park.

### **Support Facilities & Services**

- Develop environmental education via programs and signed interpretive sites.
- Establish trails patrol as hosts, emergency response, and enforcement agents.
- Provide guide and instruction services.
- Provide a shuttle system for gateway access and egress.
- Develop facilities such as:
  - Primary access trails lodge/structure to provide orientation, property and trails information, use policies, parking, toilets, use monitoring system, trails lodge, ticket sales, safety and convenience retail, etc.
  - Establish a property-wide signage and map system.
  - Develop interior facilities such as a trails lodge, dispersed camping (tent sites, cabins, shelters), toilets, etc.
  - Develop an inventory of strategic dalliances.

### **Development Steps**

- Conduct detailed fieldwork, research, and public workshop sessions for shaping the master plan.
- Designate Town of Breckenridge as primary management agency.
- Develop a non-profit foundation to assist in management, funding, etc.
- Establish a fee system.
- Design specific Golden Horseshoe back-country zoning guidelines that allow state-of-the-art design and construction of trails and facilities.
- Develop the Nordic trails infrastructure in incremental phases that are initiated by performance triggers.

### **Summary**

With thoughtful, controlled human use and exemplary trail and facilities construction, the Golden Horseshoe should be able to sustain a substantial non-motorized trails infrastructure as well as a compatible level of controlled, responsible motorized use.

Provision of more extensive facilities and satellite trail systems on the perimeter of the property should help to reduce the demand for services and facilities *within* the property but will not eliminate them. The size of the Golden Horseshoe alone will force the need for some level of services in the interior.

Phasing (incremental development steps) should be the foundation in the property's master plan. Reasons for phasing include:

- To meter expenditures and balance with revenue and demand
- To evaluate performance and impacts and devise solutions

- To alter design and/or configuration of trails
- To respond to changing trends and evolving user requirements

Finally, a critical mass of groomed Nordic trails (25-30km+/-), formal access gateways, and basic interior support facilities will need to be a Phase 1 priority in order to claim the Golden Horseshoe network as a viable Nordic operation.

Mechanisms for controlling access have to be inherent in a successful trails plan as well. Without these controls, a new trail network will become an even more impactful issue than at present.

*“If you can’t be a good example, then you’ll just have to a terrible warning.”*  
(Catherine Reid)