



THOMPSON RIVERS
UNIVERSITY



BRITISH
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MUSEUM

**THE FUTURE OF THE MCABEE FOSSIL BEDS HERITAGE SITE -
Aligning the management of the site with
fossil management approaches**



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“A world class site with an interpretive and research centre that explores the role of fossils in our lives in a natural and cultural setting.”

PURPOSE

The purpose of this document is to articulate the vision for the site; to describe the potential and opportunities the site offers; and to describe the vision components required for the sustainable management of the site.

1. BACKGROUND

The McAbee Fossil Beds Heritage Site (the “McAbee site”) was established in July 2012 as a Provincial Heritage Site under section 23 of the *Heritage Conservation Act*. This designation ensures that the site is protected in the long-term and facilitates appropriate research, education and recreational activities consistent with its primary heritage values.

Representing the early Eocene Epoch, it is one of the most important sites of its age in the world because of the exquisite preservation of fossils. Its scientific status suits it to be a portal into ancient life in general and the importance of fossil stewardship.

The sedimentary beds forming the McAbee succession were deposited in an ancient lake approximately 50 million years ago. The rocks preserved ancient life forms of the lake and surrounding uplands.

The significance of the site flows from the high quality and the diversity of fossils found, as well as its geology, history and the exceptional natural values of the setting.

These values contribute to a multi-faceted visitor experience.

The visitor can enjoy learning about geology, paleontology, archaeology, history and ecology in a recreational context.

The site provides a way to experience the effect of time and human interaction on the landscape.

“Touch a fossil and communicate with the distant past”.



The Ministry of Forests, Lands and Natural Resources (FLNR), the local communities of the Secwepemc Nation, Thompson Rivers University (TRU) and the Royal British Columbia Museum (RBCM) have interests in regard to the long-term management of the McAbee site.

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2. OPPORTUNITIES

In addition to the opportunity for visitors to be exposed to fossils in their natural setting, the McAbee site offers the following opportunities.

Research: The collections of fossils from the site are an important resource of study by scientists; many new species have been discovered at the site in the last decade.

Hands-on teaching: The McAbee site is valued for the potential it possesses as a “hands-on” educational resource for teaching people of all ages about the principles and practices of palaeontology.

By being exposed to such an important site and fascinating specimens, people of all ages can have a direct and meaningful learning experience and gain a sense of stewardship for the resource.

First Nations culture: The site represents the connection of the people to the landscape and its features, and is significant for its connections to oral history and sacred uses. The site provides an opportunity for First Nations to tell their stories, share their culture and provide their perspective.

Climate change and biodiversity: The McAbee site is a reference point for what is going on today. Today’s ecosystems can be better understood by considering the fossil record and the environments that existed in the past. To better understand how life will respond to climate change, we need to look at times in the past when climate was warmer than today.

The McAbee fossil beds provide a comparison of the diversity of plants and insects in warmer climate and help address questions about the effects of temperature on ecological processes and biodiversity.

Desert landscapes: While being exposed to fossils we can experience and learn about today’s desert landscapes. The site conserves one of the northernmost examples of the Great Basin desert, represented by few locations in Canada.

Origin of regional ecosystems: The fossils at the site provide opportunities to study ancient ecosystem composition and structure, and gain insights into how modern forests developed.

Regional history: The site can be emphasized as a regional historical museum where visitors can learn how the area was developed and gain a better understanding of the continuum of time and geography. There are regional connections with ranching, mining, landform patterns and physically dynamic landscapes.

Regional centre for geology: The McAbee site is part of a much larger area of interest from a geological and paleontological perspective. Exposures from the same formation of rocks exist to the west of the McAbee site and were protected through the creation of the Arrowstone provincial park.

Formations within Wells Gray Park and south to Falkland also share common features with the McAbee exposures. Other similar and richly fossiliferous Eocene Epoch sites occur in the north near Smithers, BC and south to Princeton, near the BC/US border. There are also several sites in the US Pacific Northwest.

Tourism: Linkages can be made to the Gold Rush Trail, the New Pathway to Gold and other local and regional initiatives looking at developing and marketing tourism opportunities along the corridor from the Lower Mainland to the Heartland of the Province. Providing educational activities to the visitors supports the provincial tourism strategy in

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areas of educational tourism and touring tourism.



3. COMPONENTS OF THE VISION

There are two components to the vision for the site:

- Visitor experience and learning
 - Site exploration and access;
 - Site uses and activities; and
 - Development and conservation of a heritage site.
- Showcase and testing management model/strategies for fossil resources in British Columbia.

The vision is shaped by:

- The *Heritage Conservation Act*;
- The BC Fossil Management Framework;
- The market potential;
- First Nations; and
- Partners and funding sources.

The site management plan and approved activities will be influenced from these factors while staying true to the vision.

4. GUIDING PRINCIPLES

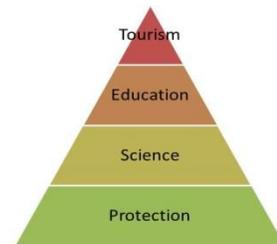
The overarching principle for the site, as directed by the heritage designation, is to allow the highest level of access for visitors while ensuring that this access has the lowest degree of impact on the heritage values.

Core values:

Four core values were identified in discussions with stakeholder groups and are summarized in Figure 1.

The future of the site depends on safeguarding the site and its resources. Site development and activities must respect the integrity of the site and the fossil deposit.

- In order of priority:
1. **Protection:** Protect the fossil heritage values associated with McAbee
 2. **Science:** Promote scientific programs to better understand the Eocene epoch and the geologic, paleontologic and climatic processes associated with it.
 3. **Education:** Promote communication and knowledge transfer from the process and outputs of science to students and non-students
 4. **Tourism:** Promote tourism and recreation by effectively leveraging McAbee.



The objectives and consequent development path envisioned should guide thinking about the nature of the partnerships, governance model, and the role that the province will take.

Figure 1 - Core values

The site's greatest value lies in what the fossils and the setting can teach us. To learn from it, we must undertake scientific research and there is an international expectation that this will be the case. What we learn from scientific research must be widely disseminated through educational activities so that all people can share in its lessons.

The best learning experience will be achieved by visiting the site. Tourism opportunities are built solidly on the other three core values and must not occur at their expense.

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Overall, the core values are interconnected, with all activities supporting elements of the vision for the site and contributing to its viability and operation success.

The management of the McAbee Site is also guided by principles of the Fossil Management Framework for British Columbia (Framework). Site management provides an opportunity to apply the Framework to site-specific conditions in the context of the McAbee Fossil Beds Heritage Site Conservation Management Plan.

The Framework's order of values is the same as the one developed through community consultation for the McAbee site. The site provides a practical situation to test approaches to provincial management principles.



5. NATURE OF PARTNERSHIPS

The heritage designation of the McAbee site and planning for future management involves local partners. Through this process, the site provides a pilot for government and partners to learn how to approach the protection and management of fossil sites in BC and to help develop a template for stakeholder involvement.

This template could offer a legacy with organizations working together on the development and management of this and other fossil sites. The integration of local community organizations, higher learning institutions and government agencies (federal, provincial, First Nation, regional, local) into a cohesive management process will demonstrate the implementation of the principles of the Framework.

The approach will allow the exploration of different visitor services, tailored to unique characteristics of an individual site and the local partners.

The model when tested, will be transferable to other sites and regions with local groups and organizations working out roles, responsibilities and governance through partnership agreements.

Expertise and contributions of the current partners for the McAbee site:

Thompson Rivers University (TRU)

- Stable educational institution drawing students from the community and creating capacity and connecting human, physical attributes, cultural and intellectual resources.
- Holds the McAbee fossil collection and provides access to it to researchers, students and members of the public.
- While government has the stewardship responsibility of the resources, TRU has stewardship responsibility of the scientific aspect of the site.

Royal British Columbia (RBCM)

- Provide standards for collecting and care of specimens.
- Responsible for raising awareness of the stewardship of fossils and fossil sites.

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- Advise on the Fossil Management Framework.
- Experience in natural history programming.

Ministry of Forests, Lands and Natural Resource Operations (FLNR)

- Steward of resources on the site.
- Provides site access and issues authorizations/use permits.
- Negotiates site management agreements.
- Responsible for the conservation management plan for the site.

Partnership discussions with the local First Nations have been initiated. The vision document will be updated in the future to reflect First Nation contributions as these partnerships develop.

The combined partner strengths will create a comprehensive set of skills, knowledge and legal authority to ensure the success of the vision.



6. SITE DEVELOPMENT CONCEPT

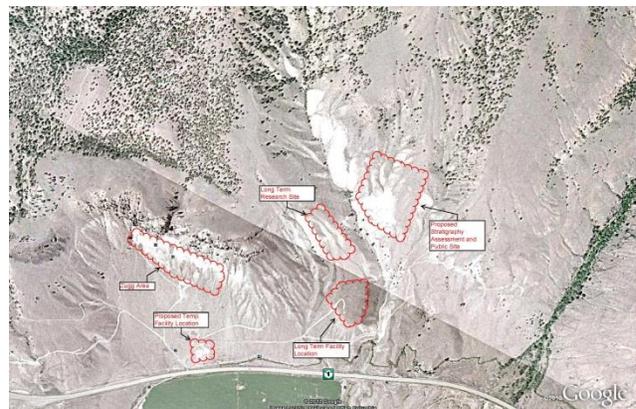
Partners are investigating development concepts for the McAbee site that would deliver an optimal combination of site stewardship and

local and provincial economic benefits while preserving its heritage importance.

Activities that raise the profile of the scientific significance of the site and serve as a public education tool in relation to the fossil resources are an important focus. Research and education programs are not limited to a site specific focus but also contemplate those that may benefit the local industry sector (such as restoration of disturbed sites).

In general, the concept for the McAbee site centres on an interpretive and research centre. The centre and site are marketed in tandem with regional geological and paleontological features to create a fossil route or “a travel through time” experience.

The development is paced starting with modest programs and activities with the goal of a larger structure and full suite of programs once site sensitivity, site potential, partnerships and fundraising strategies are established.



Facilities:

In the long term, the vision includes a visitor centre with exhibits and displays, museum space, fossil storage area, research labs, classroom space, theatre space and a gift shop.

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As the facilities are developed, the site and programs would be integrated into regional tourism offerings. There are also opportunities to partner with local First Nations to provide displays showcasing their culture and history in the area.



The site also lends itself well to guided tours and self-guided interpretative trails that could be developed over time to show the many ecological and physical landscape features of the site.

Showcasing British Columbia's capacity in designing an interpretive/research centre would provide the means to educate the public about provincial natural resources and technologies.

Revenue sources

The revenue sources could come from:

- Capital funds to develop the site.
- User fees and fundraising to maintain operations.
- In-kind contributions through volunteer program.

The significance of the resource, uniqueness of the facility and its displays, market awareness of the region, existing visitor volumes, the positioning and profile of competitive facilities and planned marketing activities all play a role in attendance and revenue potential.

Fees charged to students could recover most costs in relation to the research and educational services provided. Fees charged to visitors participating in tours and gift shop purchases would offset some of the costs of the visitor centre. Admission fees could provide an additional revenue stream.

It is also expected that cross promotion with local businesses in Ashcroft, Cache Creek, Hat Creek and Kamloops, Circle Route from Whistler and other businesses would also increase the number of local and overnight stays and increase visitor spending. Strong partner support would lead to ongoing local funding support.



The site will serve as a destination for those interested in exploring the complex life of the Cenozoic Era and learning about the natural and cultural history of the region.