**ABSTRACT**

Geotourism is a method of implementing sustainable tourism developed by National Geographic Society (NGS) to promote stewardship of the world’s distinctive travel destinations. As of April 2011, fourteen regional destinations in six countries have undertaken this community-based marketing strategy, which aims to expand traveler access to authentic, sustainable travel options.

The Geotourism Program has potential to contribute to environmental sustainability, benefit local economies, and preserve regional and cultural authenticity. However, NGS and destination partners need a system of evaluation to gauge impacts and measure success of all geotourism initiatives. In this study, I used participatory action research and case study methods to identify success indicators and develop three measures of success (MOS) tools: a Stewardship Council Assessment, Program Sustainability Assessment, and Web User Survey. These data collection instruments are based on evaluation interests of the Western U.S. Geotourism Collaboration. By implementing the same MOS methodology across projects, evidence of project successes may be aggregated to create a strong case for future project funding. Relevant background for each of the six western U.S. projects is provided in this report.

Additionally, I report results from the research process and pilot use of MOS tools on three western U.S. initiatives: Crown of the Continent, Sierra Nevada and Greater Yellowstone Geotourism. Baseline data collected to date reveals that the most conclusive evidence of project successes are impacts related to 'Regional Identity and Collaboration.' Once fully revised, the comprehensive three-part MOS methodology may be integrated as a feature of the NGS Geotourism Program to measure success of existing and new initiatives. This research is meant to serve as a resource for future MOS development as the Geotourism Program continues to expand and develop.
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Introduction

The Geotourism Program was born out of National Geographic’s Center for Sustainable Destinations—whose mission is “To protect and enhance the world’s distinctive places through wisely managed tourism and enlightened destination stewardship (NGS-CSD 2011).” Protecting and enhancing the world’s distinctive places requires prevention of degrading conditions such as overcrowding, the kind of herd mentality that impacts both environmental quality and visitor experience; as well as homogenization by chain industries.

In 1997, the geotourism strategy was created as a means of providing unique visitor experiences while supporting the unique, endemic assets of a region that create “geographical character.” Jonathan Tourtellot of NGS defined the mission of geotourism, “To sustain or enhance the geographical character of a place – its environment, heritage, aesthetics, culture, and well-being of its residents (NGS-CSD 2011).” Geotourism is a community-level marketing technique and a methodology for implementing sustainable tourism with goals of:

- Promoting destination stewardship;
- Dissuading development of generic mass tourism;
- Relieving tourism pressure from iconic sites and distributing visitation on a community-level; and
- Benefiting both tourists and residents.

NGS approaches this mission within each ‘geo-region’ by collaborating with an organized alliance of local stakeholders, referred to as the “Geotourism Stewardship Council” (GSC) throughout this report. GSCs coalesce efforts around the Principles of
Geotourism (Appendix A), partnering with NGS to expand community-level market access to authentic, sustainable travel options within each destination.

As of May 2011, a total of 14 geotourism mapping projects have been implemented by NGS and destination partners in both domestic and international regions (Complete list in Appendix B). Geotourism has the potential to influence behavior of travelers and local stakeholders—contributing to environmental sustainability, benefiting local economies, and preserving the cultural authenticity of these unique travel destinations. However, no geotourism initiative to date has formally included an effective means of gauging impacts or measuring project success. National Geographic recognized a significant need to develop and incorporate a Measures of Success (MOS) methodology that can become an integral feature of the geotourism program model.

**Research Questions**
The product of my research is a MOS methodology that may be implemented as an integral part of the NGS geotourism program model in the future. Fundamental questions driving this research include:

- **What are the potential impacts of geotourism initiatives?**
- **How can we gauge behavioral influence of geotourism projects on stakeholders and consequential economic and environmental impacts?**
- **How can we best identify and document positive impacts for all stakeholders—residents, travelers, and the destination’s natural and cultural assets.**
**Research Summary**

I have built the foundation for a Geotourism MOS Methodology that will allow NGS and destination partners to gauge success of geotourism initiatives by carrying out the following objectives:

1. **Identification of potential impacts and success indicators**
   
   I used participatory research and case study methods to involve geotourism project stakeholders in the development of MOS instrument content. GSC members of five current domestic projects and NGS staff were my primary sources of data collection.

2. **Development of data collection tools**

   I used the results from this research to develop three web-based data collection instruments: (1) a Geotourism Stewardship Council (GSC) Assessment, (2) a Program Sustainability Assessment, and (3) Web User Surveys.

3. **Pilot MOS Instruments**

   I piloted two of these tools (the GSC and Program Sustainability Assessments) on three geotourism projects of the Western United States: Crown of the Continent, Sierra Nevada, and Greater Yellowstone. Results of these two Assessments are included in this report.

Here I report the outcomes of these three efforts. This project is meant to build foundation for the body of knowledge of geotourism evaluation—a relatively unexplored field. Throughout the research process I received guidance from Jim Dion of NGS Maps Division, director of the Geotourism Program, regarding general
needs of National Geographic. I developed the following MOS methodology goals based on evaluation needs expressed by Jim Dion and by GSC members.

**MOS Methodology Goals**

NGS and all geotourism destination partners will benefit from incorporation of effective MOS instruments to meet the following needs:

- **Understand impacts to ensure quality of program**
  
  Do geotourism initiatives influence behavior of travelers and tourism providers? Contribute to environmental sustainability? Preserve cultural authenticity? Benefit local economies? A more concrete understanding of these impacts will assist both NGS and destination-specific stakeholders in future management decisions. Collecting feedback from project stakeholders and travelers can enhance the effectiveness of each project in reaching its goals. Consistently documenting qualitative and quantitative benefits to participating businesses, travelers and residents will facilitate further understanding of both short-term and long-term impacts.

- **Articulate benefits to make a case for future funding**
  
  A challenge common to all geotourism initiatives is lack of funding—making the transition from catalytic projects (‘Phase 1’) into self-sustaining, long-term programs (‘Phase 2’). To secure grant funding and make geotourism initiatives viable in the long-term, concrete evidence of beneficial impacts is imperative. If a single MOS methodology is implemented by all geotourism destinations and results are considered collectively, the success of the
geotourism strategy as a whole will be validated. Verification of success will also serve to attract new geotourism initiatives.

• **Provide feedback to NGS management and to GSC project managers**

  Anonymous feedback from GSC members is needed to help NGS and project managers understand success and challenges experienced in project implementation, gauging how effectively they work with partners.

• **Relevancy of MOS**

  The resulting data collection instruments must yield results that are relevant to both National Geographic and destination-specific stakeholders.

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### Geotourism Project Inclusion

I developed the MOS system around the interests of six Western U.S. geotourism initiatives.

<table>
<thead>
<tr>
<th>Geotourism Initiative</th>
<th>Location</th>
<th>Initiation Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.crownofthecontinent.net">www.crownofthecontinent.net</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Yellowstone</td>
<td>Idaho, Montana, Wyoming</td>
<td>Initiated 2009</td>
</tr>
<tr>
<td><a href="http://www.yellowstonegeotourism.org">www.yellowstonegeotourism.org</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Cascades</td>
<td>Oregon and Washington</td>
<td>Initiated 2009</td>
</tr>
<tr>
<td><a href="http://thecentralcascades.com">http://thecentralcascades.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sierra Nevada</td>
<td>California and Nevada</td>
<td>Initiated 2010</td>
</tr>
<tr>
<td><a href="http://www.sierranevadageotourism.org">www.sierranevadageotourism.org</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four Corners</td>
<td>Arizona, New Mexico, Colorado, Utah</td>
<td>Initiated 2010</td>
</tr>
<tr>
<td><a href="http://www.fourcornergeotourism.com">www.fourcornergeotourism.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Redwood Coast</td>
<td>California</td>
<td>Initiated 2010</td>
</tr>
<tr>
<td><a href="http://www.visithoodwoodcoast.com">www.visithoodwoodcoast.com</a></td>
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</table>
These six Western States projects initiated collaboration in late 2010 in an effort to facilitate cross-promotion between project websites and to increase visibility of individual initiatives. This collaboration effort is significant in terms of MOS development. Multi-project unity creates opportunity to aggregate evidence of geotourism impacts and create a stronger case for funding. Formally collaborating brings potential for the newly created 'Western States Geotourism' entity to apply for grants and secure funding as whole. Although the MOS instruments need to be adaptable for project-specific goals, a majority of the content is applicable to all projects. Consistent and uniform data collection facilitates project comparison and aggregation of data, essential for building a case for coalition funding.

A majority of data collection for MOS instrument content was formed from interviews with COTC, Sierra Nevada, Central Cascades and Greater Yellowstone. Four Corners and Redwood Coast did not have the capacity to significantly participate at the time of this research.
Background

Geotourism: an emerging niche market

In the face of globalization today, one of the greatest threats to the world’s unique places is homogenization. The traditional mass-tourism model standardizes tourism services, reducing product differentiation and resulting in degradation of a destination’s “sense of place,” the unique assets of a location that create an authentic travel experience (Boyle 2008). As a destination gains popularity, unchecked tourism development can fundamentally alter, even destroy, the unique cultural and environmental assets that originally attracted visitors. In the words of Jonathan Tourtellot, who coined the geotourism concept, “The tourism industry does not merely make use of the destinations on which it depends; it interacts with them. It can sustain or ruin them (NGS 2008).” In defining geotourism, Tourtellot defined five aspects of a travel destination that must be supported and conserved if its integrity is to be sustained over time: the local environment, heritage, aesthetics, culture and the well being of its residents. The following characteristics of the Geotourism strategy exemplify its uniqueness as an approach to sustainable tourism (NGS 2009).

• Serves as an umbrella integrating a variety of tourism niches and approaches—including ecotourism, cultural, adventure, nature-based, heritage and culinary tourism. Any location, accommodation, restaurant, or event that falls into one of these niches that can be found nowhere else may be considered a ‘geotouristic’ asset;
• Identifies and markets unique geotouristic assets which are highlighted with mapping tools ('MapGuides') cobranded by NGS and project partners. MapGuide tools serve to inform visitors about the region and encourage appropriate travel choices;

• Empowers local communities to tell the story of their unique destination, aiming to inspire pride in regional assets and to promote unique, environmentally sustainable features;

• Helps both communities and visitors think and operate on a regional scope and across boundaries, ideally bridging jurisdictional silos with a 'bio-regional' approach;

• Establishes a forum for discussing, planning, and implementing sustainable tourism efforts. Local geotourism alliances (GSCs) address goals of economic development, regional communication and environmental stewardship;

• Is a continually evolving strategy that builds on the experience gained from prior Geotourism projects to improve the program model.

Although mass tourism remains a virulent industry worldwide, geotourism is a growing niche market and studies show that more travelers are seeking authentic travel experiences (TIA 2002, Perez & Sampol 2000). Perez and Sampol describe a recent growth in a more conscientious style of travel with a greater focus on destination conservation. In 2002, a study by National Geographic Traveler and the Travel Industry Association of America classified over 55.1 million Americans as ‘geotourists’ (TIA 2002). ‘Geotourists’ were defined as educated travelers with high
expectations for unique and culturally authentic travel experiences who care about the protection and preservation of the places they visit and are willing to spend more money to achieve these goals. The study estimated that the average age of geotourists ranged from 43-55 years, that between 38 and 46 percent average annual household income over $75,000, that geotourists average 4 annual leisure trips, and education levels are higher than average.

**Opportunities for Geotourism**

In 1950, there were approximately 25 million international air arrivals of tourists (UNWTO 2010). In 2008, that number grew to an estimated 922 million international air arrivals. In 2020, the UN World Tourism Organization expects international arrivals to reach nearly 1.6 billion travelers. This extraordinary evolution will have significant implications for the communities receiving tourism. Here in the United States, the travel and tourism industry is one of the largest industries and employers. According to the U.S. Travel Association’s 2010 report, *Impact of Travel on State Economies*, domestic travelers spent $610.2 billion in the United States (U.S.TA(a) 2010). Considering the substantial impact of the tourism sector both internationally and domestically, significant potential exists for tourism to contribute to sustainable development from local to global scales. If the goals of geotourism are actualized, the efforts of NGS and partnering stakeholders could prove to be significantly beneficial.
**NGS Geotourism Program Model**

As one of the world’s largest nonprofit scientific and educational organizations, the National Geographic Society has an extraordinarily powerful brand name. The NGS brand reaches more than 325 million people worldwide each month through its magazines, television programs and other outreach media (NGS 2009). Affiliation with the NGS brand is a primary incentive for destinations to implement geotourism projects; as a majority of GSC stakeholders attest, the brand recognition is of “critical value. (GSC Assessment Results, Appendices K,L,M)”

For new geotourism initiatives, NGS partners with Solimar International, a sustainable tourism consulting and marketing firm. Through this partnership destinations are provided with “Destination Media Solutions,” interactive media platforms (MapGuides), with the brand and distribution of NGS publications, the mapping capabilities of NGS Maps Division, and the marketing expertise of while Solimar International.

The geotourism program model is highly adaptive. Local stakeholders are responsible for customizing the geotourism strategy to meet regional objectives and abilities, making each project very grassroots in nature. Because each project is charged with designing and deploying a local approach, highly diverse structures and strategies have resulted.
Methods for conducting geotourism have evolved with time as lessons are learned, technologies advance, and the national economic climate effects project funding abilities. Projects initiated before 2008/2009 (COTC/Greater Yellowstone), focused on creation of print MapGuides as the main products, while initiatives thereafter have had a heavier emphasis on website development and web-based MapGuides. I will refer to the web-based interactive maps as WebMaps from this point forward.

**Project Conception**

Geotourism projects are initiated around a sustainability challenge confronting each particular geo-region. Project-specific goals that guided MapGuide design and GSC promotion strategies for Western State Geotourism initiatives include:

- Educating communities (local residents, second home owners) on the significance of the region’s unique sense of place, inspiring pride in that sense of place though wise stewardship practices (Crown of the Continent, initiated 2008).

- Relieving tourism pressure from iconic destinations within the region; distributing economic and environmental impacts (Greater Yellowstone, initiated 2009; Sierra Nevada, initiated 2010).

- Revitalizing economies of rural communities (Central Cascades, initiated 2009; Redwood Coast, initiated 2010).

- Empowering and uniting communities in a politically and socially diverse region (Four Corners, initiated 2010).
These are examples of the underlying reasons for project initiation; however, each GSC goes on to create a comprehensive set of project goals, extending beyond the founding objectives summarized here.

**GEOTOURISM PROGRAM MODEL: PHASE I**

During Phase I, the catalytic project initiation period, the following objectives are met in each geotourism destination. More detailed explanation of each feature follows.

- Creation of a **local geotourism alliance** (GSC), which stays in place as the body steering sustainable development of the destination in the long-term;
- Education and outreach to local residents at **geotourism outreach forums**, carried out by GSC members to raise project awareness and encourage site nominations for geotourism maps;
- Development of **project websites and map products** (“Destination Media Solutions”), which are catalysts to mobilize local stakeholders who will support the authentic character of the destination. Geotourism maps convey important themes of each region, aiming to attract tourists who desire to experience unique destinations while minimizing their environmental and social impacts.
Creation of Local Geotourism Alliance

Every initiative is driven by a local geotourism alliance, a diverse collaboration of individuals who represent a holistic snapshot of stakeholders within a region. A wide variety of interest groups are represented from both public and private sector—including government (tourism, planning, National Parks), environmental conservation, communities, indigenous people, destination management and marketing organizations, historic preservation, and private businesses compatible with geotourism.
Structure of program governance in any destinations includes the following roles:

- **Project Manager or Coordinator** – Responsible for facilitating GSC’s internal and external communication, and for general management of movement towards project goals.

- **Executive Geotourism Stewardship Council (GSC)** – A core local alliance of stakeholders who work towards project-specific goals and support Principles of Geotourism with tourism management decisions. The executive GSC group is usually comprised of about 6-10 individuals who manage geotourism promotion in the region. Although all GSCs serve the same general function, projects have assigned different names to this core group, for example:
  
  - ‘Steering Committee’—*Crown of the Continent*
  - ‘Geocouncil’—*Sierra Nevada*
  - ‘Geotourism Stewardship Council’—*Greater Yellowstone*
  - ‘Advisory Council’—*Central Cascades*

  For consistency, this executive committee is referred to as the ‘GSC’ throughout this research.

- **Regional GSC** – A larger, open-invitation group of local stakeholders representing organizations, agencies or businesses that contribute time, expertise and/or financial support to the initiative. (For example see COTC GSC in *Appendix C*).

- **Local people**—Residents are part of the geotourism governance structure because they are directly responsible for building content of mapping tools, further described below.
Considering the inherent diversity of interests and objectives represented in public and private sector partners, the challenge is constructing MOS instruments and delivering results that are relevant to the broad variety of project stakeholders. For further NGS background on Geotourism Stewardship Councils see Appendix D.

**Public Geotourism Forums**

GSC members hold community workshops or forums to educate local residents about the geotourism initiative and to promote the community-based site nomination process used to build content of mapping tools. The number of public forums held throughout the project region depends on resources of GSC; in the six Western States projects, between 23 and 65 outreach forums were conducted during Phase 1.

**Catalytic Products: MapGuides, WebMaps and Websites**

A fundamental goal of all geotourism initiatives is to affect consumer behavior, influencing the way that travelers choose the places they visit and the businesses they will support. The geotourism strategy utilizes the power of social media with intense marketing to promote public education. The main deliverable of geotourism initiatives is creation of MapGuides—map tools that highlight and market geotouristic assets. MapGuides are developed in both print and web-based (‘WebMap’) form. Content for both map types is generated through a community-based nomination process. These maps serve as educational tools for travelers and
residents to understand and value the destination's distinctive assets, providing travelers with information on historic sites, cultural sites, accommodations, hikes, and other regional assets aligning with geotouristic values. In theory, promoting the unique, local, and sustainable features of the destination works to prevent destinations from adapting to meet the outside demands of tourism and dissuades generic mass tourism development (Boley 2009). Further details on MapGuide, Website and WebMap tools follow.

**Website and WebMap**

In 2010, over 93 million U.S. adults reported using the Internet for travel planning purposes, according to a U.S. Travel Association study (U.S. TA(b) 2010). With benefits of universal accessibility and ability to be continually updated, web-based maps have become essential tools for convening local activity in the long-term. The interactive WebMap is an electronic map housed in the destination-specific geotourism website. Compared to the print MapGuide, the web tool allows for many more sites to be included and more opportunities for travelers to experience that which makes a region unique. WebMap users can select from a variety of themes to view depending on travel interests—such as accommodation, action opportunities, community events, food and drink, and outdoor recreation (NGS 2010). A 2011 goal is to launch a handheld web application, which will facilitate accessibility of the map on smart phones.
Relevant to MOS, the website also contains a tool that allows use of the system to be tracked by portal managers. Site managers and content contributors can see how many people look at each specific item, month-by-month. Portal managers can track the number of people who visit the site, order printed maps, subscribe to electronic newsletters and save their favorite content. The website will encourage visitors to subscribe, as a subscriber base is a key resource resulting from the WebMap. Tracking subscriber usage can reveal which sites are of most interest and can help to customize future communication with subscribers.

**Print MapGuide**

The Printed MapGuide features both cartographic content (roads, cities, political boundaries, national parks) and editorial content (history, cuisine, photographs, tips). It is an educational and promotion tool that encompasses information from the Geotourism website captured at any one particular time.

The MapGuide is co-branded by NGS and funding partners, intended for wide distribution and preferably free of charge, but can be used as a source for revenue generation. MapGuides were the main deliverable for the earliest geotourism mapping projects; however, new initiatives are putting primary emphasis on the interactive WebMap and supplementing with MapGuide if funding is available. The Mapguide must be funded by the destination independent of the website project fee.
Development of Web-based Mapguide Content

Geoconsensus® is the technology used to generate MapGuide content with a community-based nomination process (Old Town Creative, 2010). This online collaboration system allows hundreds to thousands of local residents to share their knowledge of geotouristic locations, activities and events within a geo-region. Local business owners and residents nominate these features by uploading detailed information through the geotourism website. After approval by a website editor, the location, activity or event is plotted directly onto the interactive WebMap. The resulting collection of geotouristic features serves to tell the insiders story of the destination, expanding community-level market access to these locations. The main roles involved in GeoConsensus technology are:

**Contributor**—Anybody who creates content by nominating a location onto the MapGuide. The map can display content nominated by hundreds to thousands of locals.

**Website Editor**—Evaluates each nomination and approves or disapproves its inclusion on the map.

**Subscriber**—Those who sign up to receive e-news and/or updates about the region’s geotourism events.

**Visitor**—Anybody who uses the website for travel.

**Funding structure**

Currently, the geotourism website/WebMap product is the main deliverable for new initiatives. The print MapGuide is funded separately and its creation depends on
financial capabilities of any new destination. Costs of project implementation follow with an example from the Central Cascades.

**Sample Project Budget and Scope (Central Cascades, 2008)**

**Geotourism MapGuide / National Geographic Partnership**

$120,000 Guidance from National Geographic on establishing a Geotourism strategy in the Pacific Northwest. Co-branded map production. Data collection, drafting and editing of a MapGuide. Project management, monitoring and evaluation. 50,000 copies of map printed locally or by NGS.

**Online Geotourism Map Website**

$75,000 Creation of an interactive digital map for web and DVD applications using the data collected during the creation of the MapGuide. Note that the digital and paper maps are complimentary tools that can be used by both local people and visitors alike.

**Project Fieldwork Tasks**

$105,000 Execute all organizational and outreach activities to ensure participatory planning of local communities in all phases of the MapGuide creation process. Organize and manage relationships with local stakeholders and partner organizations. Organize a public relations campaign to inform the public in the Central Cascades about the initiative. Distribute outreach materials. Identify, engage, and organize the Geotourism Stewardship Council. Monitor and evaluate the project; document lessons learned, and measure predetermined success metrics. Implement a regional, national and international marketing campaign.

**Total Project Budget: $300,000**

Each project’s GSC has developed a different funding structure. Some projects are funded by a few major sources (Crown of the Continent) while others are piecemeal with a diversity of grants and funding organizations (Four Corners). Refer to Program Sustainability Assessments for destination-specific funding sources.
GEOTOURISM PROGRAM MODEL: PHASE II

Phase II represents longevity of the initiative. After the catalytic launch of the geotourism website and map, ideally there is a transition from a catalytic “project” into a self-sustaining and “program,” with a functional GSC that actively working to promote the presence of geotourism in the region. However, for all destinations there has been a struggle to make this transition due to lack of sustainable funding. Revenue-generating ideas are currently under development.

Inter-project Collaboration

Ideally as additional regions launch new initiatives, local GSCs will collaborate with neighboring geotourism programs in their region, as seen with the Western States Collaboration. On a greater scale, the National Online Geotourism Atlas (NOGA) is currently under development as a means to give greater market presence to all U.S. geotourism initiatives. The NOGA platform will be populated by ‘feeder sites’ and serve as a portal to disseminate all individual geotourism initiatives. While increasing visibility of all U.S. geotourism projects, the Atlas will enhance opportunity for domestic and international travelers to experience attractions that are not mainstream, engaging micro-medium sized enterprises to a global audience. NOGA aims to define what makes the U.S. a special place to visit, surfacing attractions and points of interest sourced from grassroots efforts. As stated by NOGA partner, Sustainable Travel International, this platform is also designed to:
• Promote the concept and practice of geotourism throughout the United States as a model that combines sustainability with responsible economic growth;

• Serve the traveling public by providing rich information on thousands of geotourism destinations across the nation;

• Enhance local communities’ social, environmental, and economic quality of life, while producing economic and social incentives for conservation, protection, and restoration;

• Promote sustainable travel as an educational experience for all visitors (STI 2011).”

My research is based on collaboration of Western States initiatives because we need a consistent MOS system in order to aggregate evidence of positive impacts. The goal of this strategy was to facilitate collaborative funding for Western States; in order to secure funding and support project sustainability, funders need evidence of project success. NOGA is a macro-version of the Western States collaboration and aggregation of MOS data can potentially serve the same function for NOGA funding in the future.
Measures of Success for NGS

Simple, quantitative figures have created a basic means of measuring success for NGS. Collectively, basic metrics considered by NGS management to date include:

**NGS Measures of Success (February 2011)**

- 14 self-funded Geotourism Mapguide projects have been completed or are underway in 6 countries; four more are in production
- 10 active geotourism stewardship councils: Northeast Kingdom Vermont; Crown of the Continent; Greater Yellowstone; Redwood Coast, CA; Sierra Nevada, CA; Four Corners; Lakes to Locks; City of Montreal; Newfoundland, Canada; Eastern Tennessee River Valley
- Over $3 million generated for NGS
- Over $4 million generated for project partner organizations
- More that 3 million Mapguides have been printed and distributed
- 7 Geoconsensus-enabled websites are being managed by GSCs.

Three indicators have been used to gauge success by NGS (Leonard 2010).

- Is the GSC still functioning?
- Is there an income stream/funding to keep the project going?
- Is the project actively visible (mapguides distributed, website hits)?

Destination-specific measures of success related to these indicators are located in Appendix E. These are important indicators and will continue to be factored into the MOS; however, they do not reflect change in behavior of travelers or local tourism providers, which are the fundamental goals of the geotourism strategy. The
methodology that I have created seeks to assess success in the context of Geotourism Principles.

METHODS

Tradition of Inquiry

This study is grounded in the Participatory Action Research (PAR) tradition. According to McIntyre (2008), PAR is a method by which the researcher and participants build a partnership in the planning, implementation, and dissemination of the research process. PAR engages and empowers participants in an adaptive, cyclical process of exploration, knowledge construction and action at different times throughout the research. PAR focuses on participant ownership and generation of inquiry; as participants are engaged, they simultaneously address integral aspects of the research process (Argyris & Schön 1991; McNiff, 2002).

I used PAR methods to engage geotourism project GSCs in content development of MOS instruments, leading a cyclical process of data collection, synthesis, review and revision. As researcher, the ultimate goal of my partnership was to create a valuable product that will positively impact each program. Within the PAR tradition, I used the Delphi technique to collect data, while case studies informed background and set context of MOS instrument development.
**Case Studies**

In the context of the PAR tradition, case studies were used in the exploration and knowledge construction phases, generating background knowledge and thorough understanding of the geotourism model. A defining characteristic of a case study is that it is limited in space and time (Hamel 1993) and is designed to capture the complexity of a particular situational context (Stake 1995). Case study has traditionally been characterized as exploratory – an initial instrumental step in understanding something broader than that particular case (Yin 1994, Stake 1995). Case studies of active geotourism projects are bound by space and time; as such, opinions and perceptions of interviewees reflect the time of this study (January 2010—April 2011) in respective geotourism regions. Forms of data analyzed include interviews, which were audio recorded and transcribed; relevant email communication; notes from informal verbal communication; NGS publications and marketing materials; destination-specific business plans; and formal statements of project goals produced by GSCs.

**Delphi Technique**

The Delphi technique is a structured communication technique which relies on a panel of experts to correlate informed judgments and build consensus (Northcote 2008). According to Northcote, this approach has been documented as a highly effective means of increasing the relevance of outcomes to stakeholders. Turoff (1996) describes appropriate use of the Delphi technique in the following cases:
• “There is contradictory or insufficient information.” Geotourism evaluation is a relatively unexplored area of research.

• “To seek out information which may generate a consensus.” Consensus among the GSC was a core research goal.

• “To correlate informed judgments on a topic spanning a wide range of disciplines.” Diversity of stakeholder interests and objectives needed to be synthesized.

• “To educate participants as to the diverse and interrelated aspects of the topic.” Reaching consensus required information sharing between GSC members.

Stakeholders of geotourism initiatives represent a wide variety of interests. In order for a MOS instrument to be applicable to a wide range of projects, GSCs need to reach general consensus on instrument content. I used the Delphi technique as a means of facilitating group consensus, synthesizing opinions of ‘experts’ (Geotourism Stewardship Council members) through a series of rounds (Hasson 2000).

**Structure of Delphi Data Collection**

I used the Delphi technique to identify, prioritize, and facilitate agreement on evaluation metrics to be included in the three final evaluation tools. Each project’s GSC effectively became an expert panel from which I collected data. I integrated feedback from each round of data collection into evaluation tools and circulated
results for review, maximizing participation by stakeholders. The final MOS methodology is the product of initial interview research revised with a series of recirculation and feedback from GSC members.

The structure of Delphi data collection for each round is outlined below.

**Data Collection Rounds**

**Round 1: Interviews**

I conducted a total of 27 preliminary interviews with both individual and focus groups to build a foundation of knowledge on geotourism MOS. GSC members of Crown of the Continent, Central Cascades, Greater Yellowstone, and Sierra Nevada were the primary interviewee pool. NGS Geotourism Program director Jim Dion of NGS Maps Division provided guidance throughout the entire research process. For a complete list of interview sources, see Appendix F.

My main goal in Round 1 interviews was to identify priority success indicators, understand what constitutes “success” for GSC members and define the most important items to cover in evaluation. Interviews were carried out both in person and over the phone between January 2010 and February 2011. I conducted semi-structured interviews, each resulting in 30-60 minute long conversations. Use of a semi-structured interview guide (Appendix G), served to retain a degree of consistency across data and ensured inclusion of important topics. Interviews were recorded either by note-taking or audio recorder and transcribed for analysis. Duke
University Institutional Review Board for the Protection of Human Subjects approved this research prior to interviewing stakeholders.

**Round 2: Feedback**

A comprehensive list of potential success indicators, generated from interviews, and corresponding evaluation metrics was circulated for feedback via email ([Appendix H](#)). I administered a web questionnaire to provide a platform for GSC members to refine ideas, comment on strengths or weaknesses of suggested indicators and to suggest new ideas. ([Appendix I](#)).

**Round 3: GSC Edits**

I proposed a draft of the three-part MOS methodology at the Western States Geotourism Collaborative Meeting on January 31, 2010 for collective critique. The MOS instruments were opened to Western States project GSC leaders for refinement.

**Round 4: Pilot Tools**

I piloted the Program Sustainability Assessment and Internal GSC Assessment on Crown of the Continent, Sierra Nevada and Greater Yellowstone. Project managers of these projects were very active in editing the proposed MOS instruments and were prioritized for that reason.
Review of Existing Geotourism Research

Geotourism is an emerging niche industry with little existing research or literature; in fact, this is the first comprehensive study of program evaluation to involve more than one geotourism initiative. Research conducted on Crown of the Continent (COTC) Geotourism by three graduate students between 2008 and 2010 provided useful background knowledge.

Most relevant to MOS development is a case study produced by University of Calgary graduate, Sheena Johnson, investigating long-term impacts of COTC (Johnson 2008). Johnson interviewed GSC members during the creation of the COTC MapGuide, producing a set of ten indicators that could be used to evaluate long-term project impacts. This research served as a starting point to begin discussions about potential indicators of success to be included in MOS instruments. Johnson produced a high quality success indicator framework; however, data collection corresponding to the indicators was never actually implemented, most likely due to the limited capacity to collect and analyze extensive data. Learning from Johnson’s experience, I undertook research with heightened attention to the limited resources of GSCs to collect extensive data. Utilization of web surveys reduces resource intensive data collection.

The final indicator list produced by Johnson follows. Indicators that are included in the newly developed MOS are marked with an asterisk. Those included have been chosen because data can be feasibly collected and were supported by current GSC
members. Those not included have been left out because they require resource intensive data collection, which could be restrictive to the long-term success of the MOS methodology.

1. Number of visitors to sites on the map*
2. Number and type of existing businesses licenses renewed and new business licenses issued
3. Existence of tourism plan(s) in the region
4. Participation in and contribution to conservation initiatives in the region*
5. Existence of development controls, design standards, and location criteria for new developments
6. Strength and duration of the geotourism advisory group*
7. Amount of land and number of historical sites that are protected
8. Number of tourist education programs and community outreach efforts related to geotourism*
9. Quality of tourism information services/interpretive programs
10. Results of visitor satisfaction surveys*

In addition to Johnson’s study, two University of Montana graduate students conducted research in Crown of the Continent with focus on the nature of geotourists. They researched geotouristic tendencies and values of travelers in the Crown region and in Montana (Boley 2009; Boyle 2010). Although Boley and Boyle’s studies are not directly related to evaluation metrics, the geotourism surveys they
implemented are quality references for survey design. Question wording utilized in their survey instruments, which have been peer reviewed and put through two thesis defenses, was integrated whenever applicable.

**Data Analysis**

I organized results of all forms of data collection with NVivo 9 qualitative data analysis software. Data analyzed was comprised of:

- All transcribed interviews;
- Relevant email communication and notes from informal verbal communication;
- NGS geotourism publications and marketing materials;
- Geotourism business plans and formal statements of project goals, produced by each destination’s GSC.

I processed this information within NVivo through “coding”, a method of labeling individual pieces of qualitative data—i.e. words, sentences and paragraphs—to distinguish important theme groups, or “nodes.” NVivo served as an effective organizing tool. Themes initially coded were based on the founding research questions—

- What are potential impacts geotourism initiatives?
- What are potential indicators of success?
- How can relevant information be collected for full range stakeholders?
Subthemes emerged and additional prominent themes were coded as they arose. I coded the following themes:

- **Reason for project initiation**
  - NGS recognition
  - Protect and promote
  - Regional collaboration

- **Impacts and Indicators**
  - **Regional Identity and Collaboration**
    - GSC communication
    - Partnerships and collaboration
  - **Economic**
    - Return on Investment
    - Tourist visitation
    - Visitor spending
    - Length of stay
  - **Social and Environmental**
    - Awareness converted to action

- **Quantitative Metrics**

- **NGS Feedback**

- **Project model**
  - Funding
  - Challenges/Obstacles
  - Successes
RESULTS

My coding for potential impact areas and success indicators generated three major impact/indicator themes:

- Regional Identity and Collaboration
- Economic
- Social and Environmental

All potential impacts and corresponding indicators suggested by interviewees fell into one of these three themes groups. Subthemes identified within each group during data analysis are outlined below.

NGS staff expressed an interest in investigating applicability of the 13 Principles of Geotourism (Appendix A) to newly defined evaluation metrics. Each of the subthemes that follow are correlated to relevant Principles of Geotourism. The method of inclusion for these metrics into the MOS methodology follows in Conclusion section.

**Theme: Regional Identity and Collaboration**

GSC members commonly reference project goals related to destination branding, regional dynamics and awareness of geotouristic assets by locals and visitors. These are important but intangible metrics that are difficult to quantify and measure. Emphasis on qualitative data collection is necessary where success cannot effectively be measured in quantitative terms.
Creation of regional identity

NGS Principles: Integrity of place; Protection of destination appeal; Community involvement

While each geo-region encompasses a cohesive ecological unit, the communities within them are widely dispersed and diverse. Creation of a unique regional identity, a fundamental goal of all geotourism initiatives, can inspire local pride and foster destination stewardship. As stated by funding partners of Sierra Nevada Geotourism, support was provided as a means to “strengthen regional identity and provide exposure to communities and businesses throughout the region that rarely get the attention they deserve.” (Interview Sierra Nevada 2011)

Visibility and branding of the created regional identity

NGS Principles: Integrity of place; Protection of destination appeal

Destination appeal to travelers outside the geo-region, and even awareness of its existence, primarily depends on success of marketing efforts. Visibility of the created regional ‘brand’ largely determines what kind of tourists choose to visit the geo-region, which ultimately determines the success of geotourism. One project goal is to “target market materials to attract the kind of traveler associated with geotourism values (Interview COTC 2010).”
Community engagement

*NGS Principles: Community involvement; Community benefit*

Community empowerment and engagement is a goal articulated by all geotourism initiatives. Long-term project success depends on engagement of local communities to tell the story of their destination and to support geotouristic assets. Communities are initially engaged in the catalytic MapGuide/WebMap production at educational geotourism forums. According to stakeholders of the Central Cascades, “There seems to be a gap in understanding the communities engagement. Beyond the initial site nomination by communities, we need a means to gauge involvement of locals.” (Interview Central Cascades 2010)

Local awareness of culture, regional pride, understanding of regional assets

*NGS Principles: Protection and enhancement of destination appeal;*

*Community involvement*

In order for residents of any geo-region to take pride in unique regional assets, they must first be aware of them. When residents view their cultural and environmental features as unique, they are more likely to be motivated into action to protect them. This is a fundamental tenant of the whole geotourism program.
Visitor awareness of regional culture, heritage and assets

*NGS Principles: Protection and enhancement of destination appeal;*

*Market selectivity*

By understanding the region’s unique cultural assets, visitors are more likely to support businesses, attend events, and visit locations that reflect those unique assets. Educating visitors is a fundamental tenant of geotourism.

Increased understanding and appreciation between residents and visitors

*NGS Principles: Tourist satisfaction; Community benefit*

Council members highlighted the importance of “gauging temperature of community attitudes towards tourism or geotourism,” believing that if a community does not welcome tourism and resident-visitor relations are strained, the geotourism strategy is not effective (Interview Central Cascades, 2010). Sierra Nevada defined a goal of “Deepening visitor connection and experience with the Sierra.” Without positive relations between residents and visitors, this goal cannot be fully attained.

Collaboration and communication between regional public—private sector

*NGS Principle: Community involvement*

Increasing regional collaboration was the most commonly referenced project success in both GSC interviews and piloted GSC Assessments. As stated by the developer of Geoconsensus, John Frandsen, “One major success of the project
has been people working together who don’t usually collaborate, to promote a set of values. Most DMOs don’t usually tell the story of a place. The geotourism strategy brings more people to the table to ask what is special about a place.”

Many GSC members attest that the project has been hugely successful in bringing people together across political boundaries to market the area, getting cooperation to tell the story. The project lives on as the GSC does things together to promote the area. In COTC, the initiative has “opened up more cross border discussions and invitations to participate in forums of regional land management issues.” This is a reoccurring theme articulated by a majority of council members, who claim that their geotourism initiative has facilitated collaboration between public and private sector entities who do not usually work together. Such collaboration can also serve to foster regional identity and pride.

**Development of partnerships**

*NGS Principle: Community involvement*

Partnerships are created on a variety of levels within each project—from the initial convening of a GSC, to funding partners and development of non-traditional partnerships to meet project goals. “Development of partnerships” was frequently referred to as a strong indicator of project success. As stated by Central Cascades, “Documenting success stories of tourism aligning with public land and local communities would be very helpful, especially when the goal of these partnerships is to channel tourist dollars into conservation (Interview Central Cascades 2010).”
Regional communication and networking

NGS Principle: Community involvement

A potential benefit for involved tourism operators is opportunity to be more engaged, connected and positioned to network within the region. In COTC, the GSC holds tourism operator workshops “Regional gatherings of tourism operators are excellent in terms of interest and engagement, and are very effective in creating a sense of "belonging" to the initiative (COTC GSC Assessment 2010."

Theme: Economic

Stakeholders from every project are highly interested in economic metrics and Return on Investment (ROI). In order to obtain the funding required for projects to be viable in the long-term, making a business argument and demonstrating economic impact to potential funders is vital. I have encountered the following challenges during the process of economic success indicators development:

1. We need to be able to prove that any economic impact is directly tied to geotourism initiative. Given the expansive area of geo-regions and number of tourists continually moving through these regions, how can we directly attribute any detected changes in tourist behavior directly to the geotourism initiative? Income-generating additions to the program currently under
development (eg. geotourism itinerary tours) will create new opportunities to measure direct economic impacts in the near future.

2. From the perspective of NGS staff, economic indicators, in the sense of individual business benefits, are not necessarily a strong measure of success for geotourism programs when considered independently (Leonard 2010). Local community benefit is important; however, it is the type of traveler, not simply economic gain that makes the difference in sustaining or enhancing a destination.

3. Most projects were initiated with goals relating to tourism development that are not directly “economic development.” The founding goals defined by GSCs are often less direct than simple economic indicators—aiming to build destination image and affect behavioral changes of travelers and residents. For example, Sierra Nevada and Yellowstone were initiated with the goal of relieving pressure from iconic sites and distributing tourism impact.

4. When considering ROI, it is important to consider costs and benefits for the GSCs. Projects are implemented on a nonprofit business plan. While GSC members may represent the private for-profit sector, the GSC as a whole functional group is nonprofit, and NGS is a nonprofit entity as well. “The MOS methodology needs to express ROI in a way that is consistent with the way
that projects are set up. This distinction is important as the GSC and NGS activities are funded in order to:

- Maximize educational outreach;
- Build consumer awareness; and
- Increase the competitiveness of the tourism industry at the local level.

(Leonard 2010)"

It is under these conditions that state and federal fund are used to support the programs. According to NGS, it is important that the programs:

- Cover their dollar costs;
- Attract new funding;
- Reinvest in the program; and
- Point towards solvency.

Economic subthemes identified during data analysis follow.

**Revenue generation for local government and business**

*NGS Principle: Community benefit*

At a most basic level, a vast majority of geotouristic businesses participating in the program do so with hopes of increasing their business’ revenue from tourists. Economic revitalization has become an outstanding goal for most initiatives. Demonstrating direct correlation between business’ involvement in the program and revenue impact is a fundamental goal of this MOS program.
As stated by a COTC council member, “We need to be able to identify direct results from the marketing and promotion of the Geotourism project map and website ... a simple question like, ‘Can you identify any direct business as a result of the map and website?’ could suffice, and go vertically into that in terms of when and how many.”

**Increase number of visitors**

*NGS Principle: Community benefit*

Gauging change in the number of visitors to sites featured on geotourism maps is a basic means of measuring both economic impacts and success of marketing efforts. “There is the educational component of bringing the stewardship council [to a community], offering the opportunity to promote the area and promote geotouristic business into the future, but if ultimately nobody is going to sites on the map, then the map has dismally failed. (Interview Central Cascades 2010)”

Varied opinions have arisen among GSCs regarding the degree of detail for this data collection. Business owners could be asked to report on visitor counts; but realistically, it is unlikely that participants will be motivated to provide extensive detailed information on a voluntary basis. In the proposed MOS instrument, business owners are asked, “How has this project impacted visitation?” and rank perceived impacts on a five-point scale from ‘No Impact’ to ‘Highly Beneficial Impact.’
Shift in type of visitors (geotourists)

*NGS Principle: Community benefit*

It is important to recognize that the goal of geotourism is **not** simply to attract more tourists, but rather to attract more of the right kind of tourist. Geotourists are interested in experiencing authentic, unique attractions; stay longer; and spend more money within a geo-region. "Attracting more U.S. geotourists to the region" is a primary goal stated by council members in effort to retain community sense of place (Interview Yellowstone 2010).

To determine whether people are visiting geotourism map locations as a direct result of project marketing, business owners will be asked, ““How often do visitors mention the Geotourism Project at the location you nominated? (i.e. refer to mapguide or project website).”

Increase visitor spending and length of stay

*NGS Principle: Community benefit*

This metric is another basic way of identifying presence of more geotourists. Accommodation providers will best be able to indicate overall changes in visitor length of stay. As with gauging changes in visitation, degree of detail for data collection is subject to debate. In the proposed MOS instrument, business owners are asked, “How has this project impacted visitor spending and length of stay”—rank from 1 (No Impact) to 5 (Highly Beneficial Impact).”
Consistent visitation throughout the year

*NGS Principle: Community benefit*

Significant variations in tourist visitation between a destination’s high and low season create economic instability for local communities who depend on tourist dollars. Offering diverse tourism products throughout the year to draw consistent visitation can lend stability. Sierra Nevada defined this as a major goal, although all destinations seeking economic revitalization will benefit from more consistent visitation throughout the year. Tourism operators (accommodation providers, restaurant owners, etc.) will be the source of this information.

**Returning visitors**

*NGS Principles: Community benefit; Tourist satisfaction*

Returning of visitors indicates visitor satisfaction with their experience in the geo-region. All projects would benefit from a deeper understanding of visitor satisfaction.

**Economic development and/or Investment**

*NGS Principle: Community benefit*

One fundamental measure of success is evident in the grants provided to GSCs by foundations, trusts, and other income sources to support project longevity. Project investment indicates potential for sustainability of the project. Longevity is the number one goal of several council members.
Return on Investment (ROI)

NGS Principle: Community benefit

Articulating ROI is a priority goal common to all projects and to NGS; as described above, the challenge is defining ROI in a way that is consistent with project goals. “If we’re really going to drill down and make geotourism a reality both from a consumer and provider perspective, we need to have an ongoing presence of the steering committee, we need to define our intent and objectives, and we need to create the tools and revenue to continue the process. ROI to partners is critical because that’s where a component of future funding will be coming from (Interview COTC 2010).”

In consideration of ROI measurement, one GSC member noted, “I worry that if we focus on ROI to quickly, we will be making false conclusions on premature assumptions. That being said, if we don’t protect our assets, we will not be financially successful in promoting our natural resources in years to come. (Interview Yellowstone 2010)

Theme: Social and Environmental

A 2011 geotourism program goal for NGS is to formally acknowledge sustainability and responsible practices by participating businesses. Businesses are accountable for social and environmental responsibility, which is why the two impact areas have been grouped together. My coding for Social and Environmental themes resulted in the following indicators.
Distribution of tourism impact

*NGS Principles: Protect and enhance destination appeal; Community benefit*

Several projects were initiated with the goal of relieving tourism pressure from iconic locations within the geo-region and distributing tourism impact to peripheral, less known sites. Distributing tourism impact can benefit a broader range of locals economically (social) and alleviate physical impacts to natural assets (environment). This was a priority goal for both Sierra Nevada and Greater Yellowstone geotourism initiatives.

Increased responsible business practices

*NGS Principles: Protect and enhance destination appeal; Conservation of resources; Community involvement; Integrity of place*

Sustainable tourism is based on implementation of environmentally, socially and culturally responsible business practices. NGS wants to develop and integrate a system of acknowledging responsible business practices through affiliation with the Global Sustainable Tourism Criteria (GSTC).

The GSTC, a project of the United Nations, are a set of 37 voluntary standards that function as an umbrella for existing sustainable tourism accreditation programs and standards worldwide. They represent “the minimum that any tourism business should aspire to reach in order to protect and sustain the world’s natural and cultural resources while ensuring tourism meets its
potential as a tool for poverty alleviation (GSTC 2011). See GSTC indicator framework in Appendix J. In the developed MOS system, the GSTC will inform a self-assessment for businesses and land managers to gauge movement toward sustainability.

**Increase environmental education and stewardship**

*NGS Principles: Protection and enhancement of destination appeal; Community involvement; Interactive Interpretation; Integrity of place*

Visitors and residents (local business owners, land managers) ultimately decide whether or not environmental sustainability will become a reality in any destination. “Any project must have a strong educational component that promotes and protects the natural environment (Interview Yellowstone 2010).

Tourism providers need to be aware of environmental assets and appropriate behavior, and educate their visitors accordingly. A metric frequently referred to by GSC members was “awareness converted to action through stewardship (Sierra Nevada, COTC, Yellowstone). Tourism operators can provide opportunities for travelers to contribute to conservation initiatives.
Increase destination-supportive activities (service projects, donations, volunteering)

NGS Principle: Protection and enhancement of destination appeal

The most concrete indicator of visitor awareness converted to action can be seen with tangible supportive activities—financial support, service and volunteering. "Traveler philanthropy" is a growing niche in tourism that certain destinations are emphasizing, namely Central Cascades. Traveler philanthropy can be measured by determining whether tourism providers (1) directly offer volunteer opportunities, or (2) provide information on how travelers can take action to benefit the local community/resources elsewhere.

Promotion of sustainable tourism

NGS Principle: Protection and enhancement of destination appeal

Visibility and presence of sustainable tourism in a region’s overall marketing strategy can serve to attract geotourists, contributing to social and environmental benefits of geotourism. As stated by a Central Cascades council member, primary reason for involvement was to "increase support for sustainable tourism opportunities in the region, increasing the number and quality of sustainable tourism offerings."
Historical preservation

*NGS Principle: Protection and enhancement of destination appeal*

Educating visitors and residents about unique historical assets within a region can cultivate regional pride and consequentially provide support for preservation of those assets. As stated by Greater Yellowstone project manager, “The goal of all geotourism projects is to protect and promote what's indigenous to a community (Interview Yellowstone 2010).”

Geotourism education

*NGS Principle: Community benefit, Interactive Interpretation*

For many GSC members, a primary goal of involvement is creating awareness for geotourism and its principals. “The most important factor in my mind is if the visitor is there for the qualities the Geotourism project promotes - supporting local producers/businesses, appreciating and supporting what makes the area unique. (COTC GSC Assessment 2010)“
CONCLUSION

Conclusions are presented in two sections—

(I) Description of data collection tools, and

(II) Final integration of resulting indicators into data collection tools.

I. Data Collection Tools

I incorporated feedback generated during all rounds of data collection into a comprehensive MOS methodology composed of the following three components:

I. **Internal GSC Assessment**

The entity with most direct insight to project success is the executive GSC (Geocouncil, Advisory Council, Steering Committee). This Assessment is to be regularly administered to each project’s GSC. Results will be provided to project managers and to NGS management to guide program development. Anonymous feedback generated by GSC members may aid in strategic decision-making concerning activity internal and external to the GSC. [Skip to completed example.]

II. **Program Sustainability Assessment**

Quantitative information indicative of project success and longevity is to be compiled by each project manager. Project funding data, MapGuide and WebMap analytics and other social media activity will be reported with this tool. [Skip to completed example.]
III. **Web Users Survey**

WebMap content provider and subscriber contact information is registered in the GeoConsensus database. I have identified three types of website users to be surveyed:

i. **Managing Content Providers**

Targets business owners who nominated their own store, accommodation, or other site onto the WebMap.

ii. **Visiting Content Providers**

Targets individuals who nominated a site onto the WebMap but do not own or manage that site. All content providers registered in the GeoConsensus database are to receive a single survey and will be directed to the appropriate path—visitor or owner/manager.

iii. **Website Visitors**

Targets those who use the WebMap for travel but did not nominate any site onto the map. Because these individuals are not content providers or subscribers, contact information is not registered in the GeoConsensus database. Short random visitor surveys to pop out on website.

I established a framework for Web User Surveys; however, revision of this component by GSCs is underway and these instruments have not yet been piloted. After content is thoroughly edited, the surveys will be emailed to GeoConsensus contacts. Future results of this survey may be processed by
independent analysts and reported to project managers. Skip to survey framework.

II. Indicator Inclusion in MOS Methodology

This section specifies how resulting indicators have been implemented in the MOS methodology. I integrated indicators of the three major theme groups (Regional Identity and Collaboration; Economic; Environmental and Social) into the three data collection tools (Internal GSC Assessment, Program Sustainability Assessment and Web User Surveys).

REGIONAL IDENTITY AND COLLABORATION INDICATORS

A. Internal GSC Assessment

GSC members are presented with a matrix of potential project impacts and asked to indicate the degree to which they consider those impacts to be actualized. Perceptions of project impacts are based on respondent’s knowledge and experience living and working in the destination. A five-point rating scale is used to gauge impacts:

<table>
<thead>
<tr>
<th>No impact</th>
<th>Low impact</th>
<th>Moderate impact</th>
<th>Highly beneficial impact</th>
<th>Extremely beneficial impact</th>
<th>Unknown</th>
</tr>
</thead>
</table>

Continually implementing this tool in the future will reveal evolution of project impacts over time. Respondents are prompted by the question, “In your opinion, what is the degree of impact for each area by your geotourism project?”
### GSC Assessment: Regional Identity and Collaboration

<table>
<thead>
<tr>
<th></th>
<th>No impact</th>
<th>Low impact</th>
<th>Moderate impact</th>
<th>Highly beneficial impact</th>
<th>Extremely beneficial impact</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation of a regional identity for the Sierra Nevada</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Community engagement</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>LOCAL awareness of culture, regional pride, understanding of regional assets</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>VISITOR awareness of regional culture, heritage and assets</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Increased understanding and appreciation between residents and visitors</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>Collaboration and communication between regional public—private sector</td>
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<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Development of partnerships</td>
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<td>○</td>
<td>○</td>
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</tr>
</tbody>
</table>
B. Web Users Surveys: Regional Identity and Collaboration

1. Managing Content Providers (business owners)

<table>
<thead>
<tr>
<th>Impact Level</th>
<th>Regional communication, networking</th>
<th>Visibility, marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>No impact</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Low impact</td>
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<td>○</td>
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<tr>
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<tr>
<td>Highly beneficial impact</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Extremely beneficial impact</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Have you ever attended a geotourism education forum since the website was launched?
- ☐ Yes
- ☐ No

Would you attend if offered?
- ☐ Yes
- ☐ No

2. Visiting Content Provider Survey

Question: Which location did you contribute to the X Geotourism MapGuide? Why did you choose to nominate this place?
Rationale: Gauge content provider's understanding of the Principles of Geotourism.

Question: Have you used the mapguide and/or website to visit other destinations in the X geotourism region?
Rationale: Understand how nominators are using website.

Question: Have you ever attended a geotourism education forum? Would you attend if offered?
Rationale: Gauge community engagement to enhance geotourism education and community interest learning about geotourism, guiding GSCs who coordinate these outreach events.
### 3. Website Visitor Survey

**Rate visitor satisfaction.**

**Question:** “Please rate the following qualities of the geotourism region that you experienced.”

- Cultural authenticity
- Environmental quality
- Interaction with locals
- Educational resources

**Rationale:** these four points represent basic principles of geotourism. Respondents rank on five-point scale from unsatisfactory to outstanding.
**ECONOMIC INDICATORS**

*A. GSC Assessment: Economic Indicators Inclusion*

As described above for Regional and Collaboration Indicators, GSC members rate the following impact areas based on knowledge and experience working and living in the region, prompted by the question, “In your opinion, what is the degree of impact for each area by your geotourism project?”

<table>
<thead>
<tr>
<th>Economic revitalization; revenue generation for local government and business</th>
<th>No impact</th>
<th>Low impact</th>
<th>Moderate impact</th>
<th>Highly beneficial impact</th>
<th>Extremely beneficial impact</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased number of visitors</td>
<td>o</td>
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<tr>
<td>Shift in type of visitors (attract geotourists)</td>
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<tr>
<td>Increased visitor spending and length of stay</td>
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<tr>
<td>More consistent visitation throughout the year</td>
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<tr>
<td>More visitors return to the Sierra more often</td>
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<tr>
<td>Economic Development and/or Investment</td>
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</tr>
</tbody>
</table>
B. Web User Surveys: Economic Indicator Inclusion

1. Managing Content Providers (business owners)

<table>
<thead>
<tr>
<th></th>
<th>No impact</th>
<th>Low impact</th>
<th>Moderate impact</th>
<th>Highly beneficial impact</th>
<th>Extremely beneficial impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Visitors</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Revenue</td>
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<td></td>
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<tr>
<td>Length of Stay (if applicable)</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Can you identify any direct business as a result of the webmap?
- Yes
- No

How often do visitors mention the X Geotourism Project at the location you nominated? (i.e. refer to mapguide, project website, etc)
- Never
- Less than Once a Month
- Once a Month
- 2-3 Times a Month
- Once a Week
- 2-3 Times a Week
- Daily

3. Visitor survey

Question: Do you plan to return?
Rationale: Indicates visitor satisfaction with experience in the region.
ENVIRONMENTAL AND SOCIAL INDICATORS

I have accounted for responsible business practices in the MOS methodology through alignment with sustainability indicators described with the Global Sustainable Tourism Criteria (GSTC).

GSTC and NGS have entered formal agreement under which GSTC acknowledges the Principles of Geotourism as appropriate sustainable tourism criteria. NGS expressed the need to draw connections between the GSTC and NGS Principles of Geotourism to make the NGS Principles more of an actionable agenda than a static documentation. The defined Principles of Geotourism are general ideals applicable on a regional scale, an umbrella under which more specific business-oriented GSTC fall.

My research lays the groundwork for a hybrid NG Principle—GSTC accredited sustainability recognition system. NGS cannot create it’s own sustainability certification, but the GSTC can validate the geotourism approach as a guide to sustainability. With a GSTC cooperative agreement in place, GSTC can acknowledge best business practices at mapped geotourism sites. Businesses in compliance with criteria can be rewarded with a form of recognition (eg. plaque for reception area), which will also serve to increase geotourism project awareness. The GSTC inform, but do not dictate the criteria for responsible business practices, which will be included in the Managing Content Provider survey.

I have synthesized simplified the thirteen NGS Principles of Geotourism and 37 GSTC standards to manageably represent applicable metrics from both documents.
Applicable indicators are divided into five categories: Environmental, Social, Cultural, Aesthetics, and Sustainable Management.

**Selection of GSTC**

When selecting GSTC to include in the survey instrument, I made decisions based on two main factors:

- **Indicator Relevance**
  The GSTC is an all-inclusive body of sustainable tourism indicators also applicable to developing countries. I selected only those indicators that are relevant to the Western United States projects. The indicators that I selected are in alignment with existing NGS Geotourism principles wherever possible.

- **Feasibility of Data Collection**
  Many of the suggested GSTC issues and corresponding indicators require highly resource intensive data collection by business owners. I chose indicators that require reasonable and realistic knowledge and effort on the part of business owners.

**A. GSC Assessment: Environmental and Social Indicator Inclusion**

As described above for other indicator groups, GSC members rate the following impact areas, prompted by the question, “In your opinion, what is the degree of impact for each area by your geotourism project?”
<table>
<thead>
<tr>
<th></th>
<th>No impact</th>
<th>Low impact</th>
<th>Moderate impact</th>
<th>Highly beneficial impact</th>
<th>Extremely beneficial impact</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distribute tourism impact</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Increased responsible business practices and education of local business owners/land managers</strong></td>
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</tr>
<tr>
<td><strong>Increased environmental stewardship and education of RESIDENTS</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Increased environmental stewardship and education of VISITORS</strong></td>
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</tr>
<tr>
<td><strong>Increase in destination-supportive activities (service projects, donations, volunteering)</strong></td>
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<td></td>
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<tr>
<td><strong>Promotion of sustainable tourism</strong></td>
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</tr>
</tbody>
</table>
**B. Web Users Surveys: Environmental and Social Indicator Inclusion**

**1. WebMap Business Survey**

Business owners and land managers who receive this survey may be asked to indicate the degree to which they meet the following responsible business practices on a five-point scale:

<table>
<thead>
<tr>
<th>No action taken</th>
<th>Little action</th>
<th>Moderate action</th>
<th>Highly level of action</th>
<th>Action taken to maximal ability</th>
<th>N/A</th>
</tr>
</thead>
</table>

Each responsible business practice outlined below is drawn directly from the GSTC (Refer to full GSTC in Appendix J). I simplified and summarized GSTC wording of these indicators so that survey respondents can readily understand them. For each GSTC indicator I have indicated a corresponding NGS Principle.

### 1. WebMap Business Survey

**Responsible Business Practices**

**ENVIRONMENT**

- **Purchasing policy favors environmentally friendly products**  
  *NG Principle: Conservation of resources*

- **Actively seek ways to reduce waste**  
  *(eg. Recycling system in place, waste management plan exists)*  
  *NG Principle: Conservation of resources*

- **Initiative to reduce energy consumption**  
  *(eg. investment in energy saving devices, use of renewable energy sources)*  
  *NG Principle: Conservation of resources*
Initiative to reduce water consumption  
(eg. water using conservation techniques adopted)  
NG Principle: Conservation of resources

Greenhouse gases reduced and/or offset to achieve climate neutrality  
NG Principle: Conservation of resources

Practices implemented to reduce pollution from noise, light, runoff, erosion, and air/soil contaminants  
NG Principle: Conservation of resources, Protect and enhance destination appeal

Wastewater is treated effectively and reused where possible  
NG Principle: Conservation of resources

Contributes to the support of biodiversity conservation  
NG Principle: Conservation of resources, Protect and enhance destination appeal

CULTURE

Information about and interpretation of the natural surroundings, local culture and cultural heritage is provided to customers.  
NG Principles: Community benefit, Community involvement, Integrity of Place

Code of behavior established for visitors at culturally or historically sensitive sites.  
NG Principles: Community benefit, Community involvement, Integrity of Place

SOCIAL

Purchasing policy gives priority to local and fair trade suppliers.  
NG Principle: Community benefit, Tourist satisfaction

Local residents are employed.  
NG Principle: Community benefit, Tourist satisfaction

Training and educational assistance provided to employees  
NG Principle: Community benefit, Tourist satisfaction

Information on how travelers can take action to benefit the local community and local resources is provided  
NG Principle: Community benefit, Tourist satisfaction

Opportunities exist for locals and travelers to volunteer and/or contribute to local nonprofits  
NG Principle: Community benefit, Tourist satisfaction
Customer satisfaction is measured and corrective action taken where appropriate

*NG Principle: Community benefit, Tourist satisfaction*

### AESTHETIC

Local decor (Use elements of local art, architecture, or cultural heritage in its operations, design, decoration, food, or shops)

*NG Principle: Protection and enhancement of destination appeal, Land use*

**Building designs reflect local character**

*NG Principle: Protection and enhancement of destination appeal, Land use*

**Protection of viewshed (no intrusive billboards, etc.)**

*NG Principle: Protection and enhancement of destination appeal, Land use*

### SUSTAINABLE MANAGEMENT

Long-term sustainability management plan considers environmental, sociocultural, quality, health, and safety issues.

*NG Principle: Planning, International Codes*

Operates in compliance with all relevant international or local legislation and regulations (including, among others, health, safety, labor, and environmental aspects).

*NG Principle: Planning, International Codes*

### 2. Visiting Content Provider

**Question:** Does the site you nominated:

- Provide information on how a traveler can take action to benefit the local community/local resources?
  
  *Rationale: Gauge success of educating visitors about destination-supportive activities*

- Have opportunities to volunteer?
  
  *Rationale: Gauge success of geotouristic sites in providing opportunities for visitors to support the destination.*
Customizing Data Collection Tools

Project managers may customize the proposed data collection tools by selecting priority indicators and questions. This proved to be effective when piloting the GSC Assessment on Sierra Nevada, Crown of the Continent, and Greater Yellowstone. An example of the comprehensive three-part MOS methodology follows, though resulting MOS tools of other projects were slightly varied.
MOS TOOL #1
PROGRAM SUSTAINABILITY ASSESSMENT

Project Management
- Current stage of project (e.g., Mapguide complete)
- Number of active GSC members
- Who are the key management partners?
  - What are their roles?

MapGuide Activity
- Number of mapguides distributed
- Percent distribution
- Rate of distribution

Website Activity
- Number of approved nominations featured on website
- Number of nominations submitted
- Number of unique content providers
- Number of active content providers
- Number of subscribers
- Number of active visitors
- Monthly content view

Social Media
- Do you have a Facebook account? Y/N
  - Name of account
  - Number of followers
- Do you have a Twitter account? Y/N
  - Name of account
  - Number of followers

Funding
- Number of funding sources
- Current total funding
- Name and amount of each funding source
- Prospective funding
- Number of grant applications
- Operating budget
- Marketing budget

Planning
- Strategic plan exists? Y/N
- Major goals of project for next 12 months:
- Major goals for next 3 years:

Promotions
- Percent of funding spent on promotions
- Number of articles written involving geotourism project area
- Number of trade and travel conferences attended
MOS TOOL #2
SIERRA NEVADA GEOCOUNCIL ASSESSMENT

Q1. Which Geocouncil are you involved with?
- Yosemite Gateway / Byways
- Tahoe Emigrant Corridor
- Southern Sierra
- Northern Sierra Cascade
- Sierra Nevada Wide Geocouncil
- None of the above

Q1a. Comment (Optional)

Q2. Geotourism initiatives have potential impact in a variety of areas, listed below. In your opinion, what is the degree of impact for each area by your geotourism project? Potential impacts are grouped into three themes.
### Regional Identity and Collaboration Impact

<table>
<thead>
<tr>
<th>Destination Focus</th>
<th>No impact</th>
<th>Low impact</th>
<th>Moderate impact</th>
<th>Highly beneficial impact</th>
<th>Extremely beneficial impact</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation of a regional identity for the Sierra Nevada</td>
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<tr>
<td>Community engagement</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>LOCAL awareness of culture, regional pride, understanding of regional assets</td>
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<tr>
<td>VISITOR awareness of regional culture, heritage and assets</td>
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<tr>
<td>Increased understanding and appreciation between residents and visitors</td>
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<tr>
<td>Collaboration and communication between regional public—private sector</td>
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<td></td>
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<tr>
<td>Development of partnerships</td>
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<tr>
<td>Economic Impact</td>
<td>No impact</td>
<td>Low impact</td>
<td>Moderate impact</td>
<td>Highly beneficial impact</td>
<td>Extremely beneficial impact</td>
<td>Unknown</td>
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<tr>
<td>Economic revitalization; revenue generation for local government and business</td>
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<tr>
<td>Increased number of visitors</td>
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<tr>
<td>Shift in type of visitors (attract geotourists)</td>
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<tr>
<td>Increased visitor spending and length of stay</td>
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<tr>
<td>More consistent visitation throughout the year</td>
<td>○</td>
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<tr>
<td>More visitors return to the Sierra more often</td>
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<tr>
<td>Economic Development and/or Investment</td>
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</table>
### Social and Environmental Impacts

<table>
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<tr>
<th>Impact</th>
<th>No impact</th>
<th>Low impact</th>
<th>Moderate impact</th>
<th>Highly beneficial impact</th>
<th>Extremely beneficial impact</th>
<th>Unknown</th>
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</thead>
<tbody>
<tr>
<td>Distribute tourism impact</td>
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<td></td>
</tr>
<tr>
<td>Increased responsible business practices and education of local</td>
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<tr>
<td>business owners/land managers</td>
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<tr>
<td>Increased environmental stewardship and education of RESIDENTS</td>
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<tr>
<td>Increased environmental stewardship and education of VISITORS</td>
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<tr>
<td>Increase in destination-supportive activities (service projects,</td>
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<td></td>
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<tr>
<td>donations, volunteering)</td>
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<tr>
<td>Promotion of sustainable tourism</td>
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</table>

Q2a. Comments (Optional)

Q3. Are you including this Geotourism project in your promotion efforts? (eg. linking to the geotourism website through your organization's website)
Q3a. Explanation:

Q4. What are your main reasons for being on the Geocouncil and for being involved in the Geotourism project?

Q5. In your opinion, what metrics (measuring project effectiveness) are important to capture for this project and how do you suggest those metrics be captured?

Q6. Please comment on challenges and successes that you have experienced during the implementation of this project so far. Be sure to include both successes AND challenges.

Q7. Considering both project cost and benefit of brand recognition, how valuable do you consider partnership with National Geographic to be? Please comment on National Geographic’s guidance in this project.

Q8. Did you experience any resistance within local chambers, tourist or visitors bureaus in collaborating on the project? Have you encountered any person or entity that views the project as competition rather than collaboration? Do you have any suggestions that might improve this collaboration?

Q9. What are your suggestions on how to improve the project and its impact (within a realistic dollars and hours budget)?

Q10. Please comment on the effectiveness of the project manager (include strengths and weaknesses).

Q11. In your opinion, what are the next steps (both short and long term) that need to be taken by the Geocouncil and the project management team in order to keep the project moving forward?

Q12. Thank you for taking the time to complete this assessment! Your feedback is greatly appreciated. If you would like to be contacted about your responses, you may provide your contact information here.
MOS TOOL #3
WEB USER SURVEYS

A. Managing Content Provider Survey

1. Which location did you contribute to the Geotourism MapGuide? Why did you choose to nominate this place?

2. How do you think this Geotourism project has impacted the following for the site that you nominated?

<table>
<thead>
<tr>
<th></th>
<th>No impact</th>
<th>Low impact</th>
<th>Moderate impact</th>
<th>Highly beneficial impact</th>
<th>Extremely beneficial impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of visitors</td>
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<td></td>
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<tr>
<td>Length of stay (if applicable)</td>
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<td></td>
</tr>
<tr>
<td>Revenue</td>
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<td></td>
</tr>
<tr>
<td>Regional communication,</td>
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<tr>
<td>networking</td>
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<td></td>
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<tr>
<td>Visibility, marketing</td>
<td></td>
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</tr>
</tbody>
</table>

2. Can you identify any direct business as a result of the webmap?
   - Yes
   - No

3. How often do visitors mention the X Geotourism Project at the location you nominated? (i.e. refer to mapguide, project website, etc)
   - Never
   - Less than Once a Month
   - Once a Month
   - 2-3 Times a Month
   - Once a Week
   - 2-3 Times a Week
   - Daily
   - Or
   - Never
   - Rarely
   - Sometimes
   - Often
   - Very Often
4. Geotourists are environmentally, socially, and culturally conscious travelers, and Geotourism encourages best business practices in these respects. Please indicate the degree to which you meet each of the following responsible business practices on a scale of 1 (no action taken) to 5 (action taken to maximal ability).

**4.1 ENVIRONMENT**

**NG Principles:** Conservation of Resources; Integrity of place

Indicate the degree to which you meet each of the following sustainable business practice:

<table>
<thead>
<tr>
<th></th>
<th>1: No action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Purchasing policy favors environmentally friendly products.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>(2) Actively seek ways to reduce waste (eg. Recycling system in place, waste management plan exists).</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>(3) Initiative to reduce energy consumption (eg., investment in energy saving devices, use of renewable energy sources)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td>(4) Initiative to reduce water consumption (eg., water using conservation techniques adopted).</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td>(5) Greenhouse gases reduced and/or offset to achieve climate neutrality.</td>
<td>○</td>
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<tr>
<td>(6) Practices implemented to reduce pollution from noise, light, runoff, erosion, and air/soil contaminants.</td>
<td>○</td>
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<td>○</td>
<td>○</td>
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<tr>
<td>(7) Wastewater is treated effectively and reused where possible.</td>
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<tr>
<td>(8) Contributes to the support of biodiversity conservation.</td>
<td>○</td>
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</tbody>
</table>
### 4.2 CULTURE

**NG Principles:** Community benefit, Community involvement, Integrity of Place

<table>
<thead>
<tr>
<th>(1) Information about and interpretation of the natural surroundings, local culture, and cultural heritage is provided to customers.</th>
<th>1: No action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) Code of behavior established for visitors at culturally or historically sensitive sites.</th>
<th>1: No action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

### 4.3 SOCIAL

**NG Principle:** Community benefit, Tourist satisfaction

<table>
<thead>
<tr>
<th>(1) Purchasing policy gives priority to local and fair trade suppliers.</th>
<th>1: No action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
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<td></td>
<td>○</td>
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</tbody>
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<table>
<thead>
<tr>
<th>(2) Local residents are employed.</th>
<th>1: No action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) Training and educational assistance provided to employees.</th>
<th>1: No action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
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<tbody>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>(4) Information on how travelers can take action to benefit the local community/local resources is provided.</th>
<th>1: No action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
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<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(5) Opportunities exist for locals and travelers to volunteer/ contribute to local nonprofits</th>
<th>1: No action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(6) Customer satisfaction is measured and corrective action taken where appropriate.</th>
<th>1: No action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
### 4.4 AESTHETICS
**NG Principle:** Protection and enhancement of destination appeal, Land use

<table>
<thead>
<tr>
<th></th>
<th>1: No Action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Local decor (Use elements of local art, architecture, or cultural heritage in its operations, design, decoration, food, or shops)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>(2) Building designs reflect local character</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>(3) Protection of viewshed (no intrusive billboards, etc.)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
</tbody>
</table>

### 4.5 SUSTAINABILITY
**NG Principle:** Planning, International Codes

<table>
<thead>
<tr>
<th></th>
<th>1: No Action taken</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5: Maximal action taken</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Long-term sustainability management plan considers environmental, sociocultural, quality, health, and safety issues.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>(2) Operates in compliance with all relevant international or local legislation and regulations (including, among others, health, safety, labor, and environmental aspects).</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
</tbody>
</table>

5. Have you ever attended a geotourism education forum since the website was launched?

- ○ Yes
- ○ No

5.1 Would you attend if offered?

- ○ Yes
- ○ No
B. Visiting Content Provider Survey

Q1. Which location did you contribute to the X Geotourism MapGuide? Why did you choose to nominate this place?

Q2. Have you used the mapguide and/or website to visit other destinations in the X geotourism region?

Q3. Have you ever attended a geotourism education forum? Would you attend if offered?

Q4. Does the site you nominated Provide information on how a traveler can take action to benefit the local community/local resources?
   ○ Yes
   ○ No

Q5. Does the site you nominated have opportunities to volunteer?
   ○ Yes
   ○ No

C. Website Visitor Survey

Q1. Please rate the following qualities of the geotourism region/location that you experienced:

<table>
<thead>
<tr>
<th></th>
<th>Unsatisfactory</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Exceeds expectations</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural authenticity</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental quality</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction with locals</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational resources</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q2. Do you plan to return?
   ○ Yes
   ○ No
Project Snapshot:

CROWN OF THE CONTINENT
Since January 2007

Regional Highlights
The Crown of the Continent region, encompassing southwest Alberta, southeast
British Columbia and northern Montana, is internationally acclaimed as one of the
most diverse and ecologically intact ecosystems in the world’s temperate zone
(Prato & Fagre, 2007). With Waterton-Glacier International Peace Park at its center,
the region includes approximately 10-million acres of land where the Rocky
Mountains intersect the US-Canadian border. It is an extraordinarily diverse
geographical and ecological crossroads, where plant and animal communities from
the Pacific Northwest, eastern prairies, southern Rockies, and boreal forests come
together.

In addition to its natural assets, diverse cultural heritage of the COTC region
contribute to its uniqueness. Sovereign territories of the Salish and Pend Oreille
Tribes, the Kootenai and Ktunaxa Nations, and the Blackfoot Confederacy intersect
political domains of the U.S. and Canadian lands. While the bioregion can be viewed
as a single ecological unit, the ecosystem is divided by national and provincial
borders and is managed by a number of provincial, state and federal agencies. More
than 21 federal, First Nations, state, and provincial agencies strive to cooperatively
manage the Crown’s lands, wildlife, timber, minerals, oil and gas, and other
resources (CRT 2009). As one of North America’s largest ecologically intact areas, there are many benefits to managing the Crown in a holistic fashion.

**Role of Geotourism in COTC**

Many travel destinations throughout the Rocky Mountain West have lost their sense of place—the unique qualities that create authenticity—due to inappropriate overdevelopment. As the region shifts away from exclusively resource commodity development (i.e. mining, grazing, agriculture and logging) to more service-oriented recreation and tourism industries, it is increasingly important to develop tourism in a way that preserves the region’s authentic character (Prato & Fagre, 2007),

At the time of geotourism project initiation, major issues confronting the Crown region included rapid growth in second home ownership, amenity migration and land use conversion (NGS-CSD & NPCA 2006). Amenity migration rises as a threat when tourism development becomes a platform for real estate development. Soon after the COTC geotourism project was launched, the national economic downturn occurred. Migrating capital slowed and emphasis on the issue of amenity migration was reduced. Since the project’s conception, the theme has morphed into the bigger concept of "community education" on geotourism. As stated by the Dylan Boyle, the COTC project manager, “This is more of an all encompassing goal for local residents and second home owners to understand the significance of the Crown's unique sense of place and to take pride in that sense of place though wise stewardship practices.
A major goal of the COTC Mapguide project was to convey the “living heritage” of the region and highlight historical uses of the land, educating residents and potential residents about the importance of communities, sense of place and trans-historical themes of the area. The underlying MapGuide message is that traditional uses of the land need to be respected by newcomers; if people move into the Crown region without doing so, the “continuous thread of history that makes the Crown region unique” is at risk of being lost (Dion, 2010).

Geotourism in COTC represents a commitment to community-based economic development. In the words of Boyle, “By anticipating development pressures and applying management techniques such as geotourism, we have the ability to sustain our natural resources, scenic appeal, traditional use of the land, and our local quality of life. By choosing to commit to geotourism, we not only continue to differentiate ourselves as a travel destination and remain economically viable in that industry but will continue to support other industries including farming and ranching. As a result, we will not be reliant on one industry for an entire state’s economic well-being.”

*Project Structure*

**Funding**

In February 2007, NGS partnered with Montana Department of Commerce, Alberta Geotourism Consortium, and Kootenay Rockies Tourism of British Columbia to produce a Geotourism MapGuide. The National Parks Conservation Association (NPCA) and the Chinook Institute for Community
Stewardship were the implementing partners who facilitated the mapping process.

**Crown of the Continent Geotourism Management**

- **Project Coordinator** – Dylan Boyle (2011)– Facilitates GSC’s internal and external communication; completed the Program Sustainability Assessment.

- **Project Steering Committee** – This is the executive level of the GSC, a group comprised of six individuals who manage promotion of the project. This entity aims to “pursue cooperative projects that promote regional understanding and appreciation, encourage sustainable businesses, support community well being, advance landscape stewardship, and provide quality visitor experiences (Crown, 2009).” The steering committee completed the Internal GSC Assessment.

- **Greater GSC** - The 51 organizations/groups/agencies described as "partners" are active members of the overall COTC Geotourism Council. These people were instrumental in the nomination process and earlier stages of the project—by contributing financially, providing broad based support, or taking time to directly assist in the project. As of March 2011, four of these partners are still funding the project and the others are involved as necessary. All but one of the steering committee members are affiliated with one of the partnering GSC organizations. One of the project coordinator’s roles is to encourage other partners to take a more active role in the project. For
a complete list of GSC members see Appendix C.

**Project Goals**

The COTC Geotourism Stewardship Council defined project goals in strategic business plan in February 2009. The GSC defined its goal, at both the executive and regional level, to bridge jurisdictional silos of Canada and northern Montana with a bioregional approach to tourism development. The GSC describes itself as "a regional network of communities, tourism bureaus, conservation and business groups, educators, First Nations, government agencies, and others working together to provide information about the COTC region for visitors and residents to understand, appreciate, and help preserve its geographic character, including historical, cultural and environmental heritage (CRT 2009)."

The COTC GSC stated their intent to use the geotourism strategy to encourage use of “locally-owned, created or grown products, services, organizations and activities,” defining three overarching goals in the 2009 Strategic Business Plan:

**Goal 1** Geotourism Business Development
Establish the Crown of the Continent as a well-know destination highly regarded for providing quality visitor experiences through sustainable tourism activities and operations.

**Goal 2** Stewardship
Provide visitors and residents opportunities to preserve and celebrate the environment, culture and history of the Crown of the Continent transboundary region.
**Goal 3** Communication and Education

Expand networks, promote regional pride, and increase public awareness of the unique Crown of the Continent bio-region.

**Measuring Success of COTC Geotourism**

NGS has used the following key metrics were used to gauge project success to date:

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>• 200,000 mapguides printed</td>
</tr>
<tr>
<td>• 65 community workshops held</td>
</tr>
<tr>
<td>• 850 site nominations received</td>
</tr>
<tr>
<td>Nov 26 2008 to Jan 24, 2010 – 107,304 unique visitors – 21,835 subscribers (people signing up with the site) = 20% conversion (anonymous visitor to subscriber)</td>
</tr>
<tr>
<td>• 192 local content contributors providing 480 active content for website entries</td>
</tr>
<tr>
<td>• 90 newspaper, website, radio, magazine and TV reports on file</td>
</tr>
<tr>
<td>• The created GSC was named recipient of the Montana Tourism Partnership of the Year award in March 2009.</td>
</tr>
</tbody>
</table>

**Key Project Features and Metrics**

- **Hired project coordinator**

  As of February 20011, COTC is the only geotourism project to have a paid geotourism coordinator. Many GSC members of other projects noted lack of this feature as a major hindrance to project momentum. Presence of a hired coordinator has effectively stimulated GSC activity.
• **Metric: Longevity of project**

The challenges of longevity and program sustainability were heavily emphasized during interviews. Interest in “return on investment to partners” was a prevalent issue as well.

• **Metric: Awareness and converting to action**

In terms of sustainable operation practices, GSC members want to measure the conversion of tourism activity into revenues that serve environmental conservation, restoration and/or interpretation.

• **Outstanding Success: Regional collaboration**

A major impact area noted by COTC GSC respondents is project’s success in bringing together people do not usually collaborate to promote Principles of Geotourism. As stated by one GSC member, “The project has been very successful in bringing people of British Columbia, Alberta and Montana together to market the area to market the area, cooperating to tell the story of the area. In this way the tourist can experience the reality of the natural bioregion, undivided by man-made political boundaries.” The initiative has created opportunities for the GSC to collaborate with other organizations at work in the Crown region to discuss land management issues, a success in terms of environmental sustainability (eg. The Crown of the Continent Roundtable Forum)
Lack of knowledge of geotourism among visitors and residents

Several council members reference the need for increasing visibility of the project and education for visitors and residents.

_COTC Program Sustainability Assessment Results_  
**March 2011**

**Project Management**

_Current stage of project_

As of 2008, The Crown of the Continent Geotourism Council has successfully created and distributed a printed MapGuide as well as implemented an online version at [www.crownofthecontinent.net](http://www.crownofthecontinent.net). During the summer of 2010, the Council hired a project coordinator to initiate the second phase of the strategic plan.

_Number of active GSC members_

As of February 23, 2011, The Crown of the Continent Geotourism Council has 51 member groups, including tourism bureaus, businesses, educators, conservation groups, recreation groups, First Nations, and government agencies.

_Who are the key management partners?_


_What are their roles?_

Each of these partner groups has a representative on the Crown of the Continent Geotourism Steering Committee. This six-person committee serves as the governing board for the Crown of the Continent Geotourism Council.

**MapGuide Activity**

_Number of MapGuides distributed_

During 2009 and 2010, the Montana Office of Tourism (MTOT) distributed 108,383 MapGuides via website request. The number of Canadian request is not available.

_Percent distribution_
Initially, MTOT and their partners printed 245,000 Crown MapGuides. They currently have 56,406 MapGuides remaining. Therefore, 77% of the MapGuides have been distributed.

**Rate of distribution**
According to the MTOT, 53,638 MapGuides were distributed in 2009 and 54,745 were distributed in 2010. On average, approximately 54,191 MapGuides are currently being distributed per year or approximately 4,516 per month.

**Website Activity**
- Number of approved nominations featured on website: 540
- Number of nominations submitted: 667
- Number of unique content providers: 343
- Number of active content providers: 233
- Number of subscribers: 24,380
- Number of active visitors:
  - 3,933 people: January 23- February 22, 2011

**Monthly content view**

<table>
<thead>
<tr>
<th>CONTENT TRAFFIC TREND</th>
<th>Total Content Views Per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25998</td>
</tr>
<tr>
<td>9,000</td>
<td>33111</td>
</tr>
<tr>
<td>18,000</td>
<td>35127</td>
</tr>
<tr>
<td>27,000</td>
<td>25998</td>
</tr>
<tr>
<td>36,000</td>
<td>33111</td>
</tr>
</tbody>
</table>

**Social Media**
- Do you have a Facebook account?
- Name of account: [www.facebook.com/crownofthecontinent](http://www.facebook.com/crownofthecontinent)
- Number of followers: 87 'likes' as of February 23, 2011
Do you have a Twitter account?
Name of account: www.twitter.com/crowngeotourism
Number of followers: 23 as of February 23, 2011

Funding
Number of funding sources: 4
Current total funding: $30,000
Name and amount of each funding source
  Montana Office of Tourism: $10,000
  Travel Alberta: $10,000
  Kootenay Rockies Tourism: $5,000
  National Parks Conservation Association: $5,000

Prospective funding
  Website marketing
  MapGuide reprinting and distribution

Number of grant applications: 0

Operating budget: $5,000
Marketing budget: $0

Planning
Strategic plan exists? Yes

Major goals of project for next 12 months
Community education seminars, social media marketing, MapGuide distribution, and sustainable funding sources.

Major goals for next 3 years
Formal legalization of international partnership, increased community outreach, increased online awareness, MapGuide sales, and sustainable funding sources.

Promotions
Percent of funding spent on promotions
All of the promotion of the Crown of the Continent Geotourism project has been on good faith from our partners and other interested parties. However, the Montana Office of Tourism embarked on a paid online advertising campaign from August through September of 2010 aimed at increasing interest and intent to travel in the COTC region as well as increasing traffic to the geotourism website.

Number of articles written involving geotourism project area
Approximately 24 articles have appeared during and after the nomination process. Here are some examples of where articles have appeared.
  1) Daily Inter Lake (Flathead Valley, MT)
  2) Flathead Beacon (Flathead Valley, MT)
  3) KSPS (PBS Affiliate) Documentary
4) Great Falls Tribune (Great Falls, MT)
5) The Missoulian (Missoula, MT)
6) The Daily Townsman (Cranbrook, B.C.)
7) The Fernie Free Press (Fernie, B.C.)
8) Lethbridge Herald (Lethbridge, AB)

**Number of trade and travel conferences attended**

No specific number is available. However, conferences attended are listed below.

1) Montana Governor’s Conference on Tourism & Recreation
2) Alberta Southwest Tourism Showcase
3) Roundtable on the Crown of the Continent
4) Glacier Country (MT) Quarterly Meeting
5) Tourism Advisory Council (TAC) for the state of Montana
6) Greater Western Chapter of the Travel & Tourism Research Association
7) Whitefish Convention and Visitor Bureau Board Meeting
**1. GSC members perception of project impact**

Based on five-point scale:

1. No Impact
2. Low Impact
3. Moderate Impact
4. Highly Beneficial Impact
5. Extremely Beneficial Impact

<table>
<thead>
<tr>
<th>Regional Identity and Collaboration Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional collaboration and communication between private and public sector</td>
</tr>
<tr>
<td>Visibility and branding of the created regional identity</td>
</tr>
<tr>
<td>Creation of a regional identity</td>
</tr>
<tr>
<td>Visitor awareness of regional culture</td>
</tr>
<tr>
<td>Local awareness of culture, regional pride, understanding of regional assets</td>
</tr>
<tr>
<td>Community engagement</td>
</tr>
</tbody>
</table>

- Regional collaboration and communication between private and public sector: 4.1
- Visibility and branding of the created regional identity: 4.0
- Creation of a regional identity: 3.8
- Visitor awareness of regional culture: 3.7
- Local awareness of culture, regional pride, understanding of regional assets: 4.0
- Community engagement: 3.9
When considered as collective theme groups, Regional Identity and Collaboration impacts are perceived to have higher impacts, with an average of 3.97 on the 5-point scale. Within this group of impacts, ‘regional communication between the public and private sector’ is rated as greatest impact area, with an average impact rating of 4.17.
Average rating of economic impacts was 3.47, the second highest scoring theme group. Respondents perceive impacts to be “moderate” or higher for all economic metrics.

Social and Environmental impact areas received lower rating, with an average of 3. The lowest of all scores is seen in destination-supportive activity (volunteering, donations, give-back initiatives).

Top-ranked impacts for COTC Geotourism are highlighted below:

<table>
<thead>
<tr>
<th>REGIONAL IDENTITY AND COLLABORATION</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community engagement</td>
<td>4</td>
</tr>
<tr>
<td>Local awareness of culture, regional pride, regional assets</td>
<td>4</td>
</tr>
<tr>
<td>Visitor awareness of regional culture</td>
<td>3.83</td>
</tr>
<tr>
<td>Creation of a regional identity</td>
<td>3.83</td>
</tr>
<tr>
<td>Visibility and branding of the created regional identity</td>
<td>4</td>
</tr>
<tr>
<td>Regional public-private sector collaboration and communication</td>
<td>4.17</td>
</tr>
</tbody>
</table>

AVG: 3.97

<table>
<thead>
<tr>
<th>ECONOMIC</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourist activity, visitation</td>
<td>3.83</td>
</tr>
<tr>
<td>Visitor length of stay</td>
<td>3.67</td>
</tr>
<tr>
<td>Visitor spending</td>
<td>3.5</td>
</tr>
<tr>
<td>Revenue generation for local government and business</td>
<td>3.33</td>
</tr>
<tr>
<td>Economic Development and/or Investment</td>
<td>3</td>
</tr>
</tbody>
</table>

AVG: 3.46

<table>
<thead>
<tr>
<th>SOCIAL AND ENVIRONMENTAL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible business practices (environmental, social)</td>
<td>3.17</td>
</tr>
<tr>
<td>Destination-supportive activity (donation, volunteering)</td>
<td>2.83</td>
</tr>
<tr>
<td>Environmental stewardship education and action</td>
<td>3</td>
</tr>
<tr>
<td>Historical preservation</td>
<td>3</td>
</tr>
</tbody>
</table>

AVG: 3

2. **GSC perception of success in achieving founding goals of COTC geotourism:**

A majority of the COTC steering committee believes that founding goals of the geotourism project are being effectively achieved.

<table>
<thead>
<tr>
<th>Very Ineffective</th>
<th>Ineffective</th>
<th>Neither Effective nor Ineffective</th>
<th>Effective</th>
<th>Very Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>
3. **Results of the COTC GSC Assessment are summarized below. For full responses see Appendix K.** Opinions and perceptions of GSC:

- **On success and challenges communicating within the GSC**
  COTC covers a large, diverse area and distances between council members present a challenge. There is agreement among respondents that communication and coordination has been very effective. As of February 2011, the executive GSC is having regular monthly conference calls with the coordinator for project updates and discussion of priority actions for the near and long term.

- **On creation of new partnerships**
  Respondents are unanimously pleased with the success of COTC geotourism in creating new partnership. Beyond success of community-level partnerships, the COTC GSC partnership has been invited to discuss regional issues with organizations also at work in the region—eg. the Sustainable Tourism Initiative in Alberta, CA and the Crown of the Continent Roundtable Forum, which focused on land management and environmental issues in the area.

- **On GSCs contributions to geotourism-related activities**
  All steering committee members actively promote geotourism in a variety of ways—such as media outreach; public presentations, workshops and meetings; and regional networking events. Members reference statewide adoption of geotourism principles and implementation of principles into statewide marketing,

- **On community outreach programs**
  Respondents indicate medium-fair interest and attendance at general public geotourism community outreach programs. Several committee members predict an increase in outreach program popularity, considering the continual integration of geotourism into local tourism communities. One member points out that regional tourism operator workshops are great way to generate interest and create a sense of belonging to the geotourism initiative.

- **On effectiveness of geotourism website**
  The steering committee’s recommendations for the COTC geotourism website include—stronger inclusion of a conservation message; development of social media programs to drive visitation; utilization of marketing tools that target the geo-traveler; addition of an email reminder to update content entries; and addition of an e-newsletter for subscriber outreach.

- **On proposal of a membership fee to sustain the website and GSC activities**
Several respondents state that they are already contributing funding partners. Members suggest other funding and revenue generating ideas—opportunities to donate or development of a marketplace for geotouristic products, lodging bookings and participation in guided tours.

- **On effectiveness of project coordinator**
  All respondents agree that the current project coordinator is facilitating communication and working towards project goals very effectively.

- **On the role of National Geographic**
  Members expressed need to address challenges of sustainable funding, as well as development of a means to gauge project effectiveness and determine how geotourism education is influencing visitor travel. Interest in developing a more long-term, ongoing connection with NG that continues after the catalytic MapGuide phase was also expressed. Several respondents recognize evolution of the NG project model with each subsequent project, and that NG adjusts project elements based on experience. As one of the earlier projects, members were happy with NG’s flexibility to respond to unique needs of COTC.

- **On Next Steps for GSC to keep project moving forward**
  Long term: Need to develop a self-sustaining funding model; continue building partnerships; develop research tools to measure project success
  Short term: Engage geotourism business operators; develop criteria for site inclusion on WebMap to ensure quality product; continue to build recognition of geotourism by educating communities, businesses, organizations and visitors.
Project Snapshot:

**SIERRA NEVADA GEOTOURISM**
Since 2010

*Regional Highlights*
The Sierra Nevada of California and Nevada represents a 400-mile long mountain range of unique geological and cultural character. Encompassing 25 counties and 25 million acres of small and large communities, iconic places and publically managed land. Well-known features of the Sierra include Lake Tahoe, the largest alpine lake in North America; Mount Whitney, the highest point in the contiguous U.S.; and Yosemite Valley, sculpted by glaciers out of 100-million year old granite. The Sierra is home to three national parks, Yosemite, Sequoia and Kings Canyon; 20 wilderness areas and two national monuments.

*Role of Geotourism in Sierra Nevada*
Popularity of the many iconic locations in the Sierra Nevada region becomes a source of threat to those assets when tourism visitation is highly concentrated. Highly concentrated tourism results in environmental impacts, degrades visitor experience and does not lend economic support to less visible surrounding locations. A founding goal of the Sierra Nevada Geotourism project was to take pressure off highly iconic sites, such as Yosemite Valley, by highlighting overlooked assets to distribute the impact of tourism.
Project Structure
Due to the great size of the region, the Sierra Nevada was divided into four different phase regions: Yosemite Gateways; Tahoe Emigrant Corridor; Southern Sierra; and Sierra Cascade.

Management and Funding Partners
The project is managed by the Sierra Nevada Conservancy and Sierra Business Council. Funding partners include the Morgan Family Foundation Grants; Federal Highways Administration Scenic Byways; US Forest Service; and Nevada Tourism Grant.

Management of Sierra Nevada Geotourism
- **Project Manager (2011)** – Nicole DeJeunge, Sierra Business Council
- **Sierra Nevada Wide Geocouncil** - Guides the overall vision of the project, sustain the project into the future, and encourage long-term stewardship of the region’s natural, historic and cultural assets.
• **Local Geocouncil** - Local Geocouncils are active for each phase area. Each local Geocouncil encourages community participation in the nomination process, works to ensure nominations reflect the diversity of the region, and selects the nominations for final review by the National Geographic Society.

**Project Goals**

As stated by project manager, “The Sierra Nevada geotourism project seeks to celebrate the Sierras as a world-class destination, while contributing to the economic health and promoting long-term stewardship of the region.” The mapping project aims to recognized attractions, businesses, and events distinctive to the Sierra Nevada, providing travelers with a richer experience while contributing to the economic health of the region (SNBC 2010). Beyond the mapping of geotouristic assets, goals of the project are to:

• Distribute tourism impact, highlighting overlooked assets
• Revitalize the economy
• Preserve the environment, educating residents and travelers ‘how to act’
• Empower community members and increase collaboration throughout the region
• Promote responsible tourism
• Deepen visitor connection and experience with the Sierra
• Create a regional brand
• Create an advocacy group of the entire Sierra Nevada range
• Increase opportunities for travelers to participate in Sierra stewardship and voluntourism
• Link opportunities to act geotouristic (eg. such as local business purchasing, local products, energy efficiency)

**Measuring Success of Sierra Nevada Geotourism**

Key metrics used to gauge success prior to this work:

<table>
<thead>
<tr>
<th>Sierra Nevada California (2010)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• 3 paper mapguides and a four-part mapguide initiative</td>
<td></td>
</tr>
<tr>
<td>• Project launch in Yosemite byway region in August 2009</td>
<td></td>
</tr>
<tr>
<td>• 9 local newspapers and 3 TV stations covered launch events</td>
<td></td>
</tr>
<tr>
<td>• 23 geotourism forums held in the region</td>
<td></td>
</tr>
<tr>
<td>• 1,400 site nominations received</td>
<td></td>
</tr>
<tr>
<td>• <a href="http://www.SierraNevadaGeotourism.org">www.SierraNevadaGeotourism.org</a> launched March 2010– public site still in development</td>
<td></td>
</tr>
<tr>
<td>• 722 local content contributors providing 823 active content website entries</td>
<td></td>
</tr>
<tr>
<td>• Sierra Nevada is the first site a complete online nominations process was followed using GeoConsensus. On the other sites the nominations process was offline and then transferred online. It appears the online process brings in significantly more nominators and active content entries.</td>
<td></td>
</tr>
</tbody>
</table>

**Key Project Features and Metrics**

• The most valuable metric to the Sierra project manager is also the most challenging to measure, economic impact and proving positive impacts to make a case for project funding.
Sierra Nevada Program Sustainability Assessment Results
March 2011

Project Management

Current stage of project

In process of collecting nominations in the Southern Sierra, the third (of 4) phase areas of the project. Website has been developed and is in use. Webmap currently features about 800 destination pages.

Number of active GC members

42 total: 20 in the Southern Sierra phase area, 23 Sierra Nevada Wide Geocouncil Members (including SF and BK) – There is one Geocouncil member who sits on both SS and SNW Geocouncils. 52 total if you include the 5 GC members from YGB and TEC who are on the “continuation team” reviewing nominations. We had about 15-20 members each on our Yosemite Gateway Byway Geocouncil and our Tahoe Emigrant Corridor Geocouncil. Since the nomination period in those phase areas has closed, we just have about 5 members from each on our continuation team.

Who are the key management partners?

Sierra Nevada Conservancy (SNC) and Sierra Business Council (SBC)

- SNC and SBC work together to manage the project. Both SNC and SBC fundraise, do outreach including presentations to local government/groups, work on media/press, recruit/manage Geocouncil members, organize events, work on special tasks to keep the website/project fresh/relevant, and work with the Geocouncil on the sustainability/future of the project
- Sierra Nevada Conservancy is a major project funder through cash contracts.
- SBC donates in kind services and hours. Sierra Business Council manages the budget, does most of the administrative work for the project, coordinates with National Geographic, manages the website, and creates most of the outreach documents for the project.

MapGuide Activity

Not applicable. No MapGuides have been printed.

Website Activity

Number of approved nominations featured on website: 926
Number of inactive nominations: 1048*

*Difficult to track how many total nominations have been submitted
Number of unique content providers: (there is no easy way to look this up)
Number of active content providers: 1556
Number of subscribers: 122
Number of unique visitors: 6 month average (Sept 2010 – Feb 2011): 5956

Social Media

Do you have a Facebook account? Yes
Name of account Sierra Nevada Geotourism
Number of followers 645
Do you have a Twitter account? Yes
Name of account *SierraGeotour*
Number of followers 61

Funding

**Name and amount of each funding source:**
1. Sierra Nevada Conservancy $90,000
2. Sierra Business Council in-kind donations thus far estimated at $40,000
3. Morgan Family Foundation $50,000
4. National Highways Administration, Scenic Byways Program $205,000 (but have not received the $ yet)
5. US Forest Service $45,000
6. Nevada Commission on Tourism Grant $5,000
7. Donations from project supporters, cumulative about $1500

**Prospective funding**
We are constantly seeking and applying for funds. Hard to predict

**Number of grant applications**
About 8

**Operating budget**
Varies, we rely heavily on in-kind donations, which is hard to value

**Marketing budget**
None

Planning

**Strategic plan exists?**
No, a written plan does not exist but the Sierra Nevada Wide Geocouncil continually reviews project goals, project progress, and develops strategy and ideas for moving forward.

**Major goals of project for next 12 months:**
(SS = Southern Sierra, NSC = Northern Sierra Cascade):
• SS – Finish nomination period; Outreach, presentations, workshops; Geocouncil facilitation and work
• Events – Nomination review meetings, celebrate and announce SS completion, launch events for the NSC, LA travel and trade show, celebrate and announce NSC completion.
• Portal editor work, outreach work
• Special projects such as audio slide shows, tribal outreach, tours
• Website development, updates, work out issues with the website
• Grant and funding management – invoices and payments, grant reporting, complete all necessary paperwork and documents
• Contract review and management and implementation
• Fundraising, grant research and writing
• Determine print map, fund it, print it, distribute it
• Develop and start to implement marketing plan. Consider Sierra Made store etc.
• Make sure hand held app gets developed, tested, and distributed
• NS – secure partners, outreach, meetings, schedule and deliver presentations, work with project supporters
• NS – work strategically to develop positive relationships and partnerships
• Metrics – Create collection technique, synthesize the info, disperse and communicate results
• Communications – manage and implement, media calls and meetings, writing articles

**Major goals for next 3 years:**
• Develop and implement full marketing plan
• Develop and implement sustaining funding plan
• Inform and empower local business owners, land managers and residents on Geotourism, including what it is, why it’s important, how to attract and retain geotourists
• Educate visitors/tourists on how to be a sustainable geotourist
• Increase economic and environmental health in the Sierra
• Provide a high quality and easily usable guide to Geotourism in the Sierra

**Promotions**

*Percent of funding spent on promotions*
Currently estimated at 5-10%

*Number of articles written involving geotourism project area*
113 (since Aug 2009)

*Number of trade and travel conferences attended*: 5

*Number of promotional events:*
Seven phase area launches and celebrations specifically hosted by the Sierra Nevada Geotourism project. We have been a part of (presenting/speaking at, and/or tabling at) about 85 events thus far.
Twelve geocouncil members completed the Assessment, representing Tahoe Emigrant Corridor (7), Southern Sierra (3) and the Sierra Wide Geocouncil (2).

1. Geocouncil Perception of Project Impact
Based on five-point scale:
1-No Impact
2-Low Impact
3-Moderate Impact
4-Highly Beneficial Impact
5-Extremely Beneficial Impact

### Regional Identity and Collaboration Impacts

- Development of partnerships
- Collaboration and communication between regional public and private sector
- Increased understanding and appreciation between residents and visitors
- VISITOR awareness of regional culture, heritage and assets
- LOCAL awareness of culture, regional pride, understanding of regional assets
- Community engagement
- Creation of a regional identity for the Sierra Nevada
Regional Identity and Collaboration Impacts received the highest ratings as a group, averaging 3.45 on the five-point scale, slightly greater than ‘moderate impact.’ “Visitor awareness of regional culture, heritage and assets” had an average rating of 4, the highest score of all impact areas.

Economic Impacts were rated similarly, averaging 3.44. Within this theme group, “Revenue generation for local government and businesses” received the highest rating at 3.8 out of 5.
Environmental and Social Impacts were rated lower than other theme groups with an average of 3.27. The lowest score of all groups was “Increased responsible business practices and education of local business owners/land managers,” scoring an average of 3.

Top-ranked impacts for Sierra Nevada Geotourism are highlighted below:

| REGIONAL IDENTITY AND COLLABORATION IMPACTS |  
|---------------------------------------------|---|
| Creation of a regional identity for the Sierra Nevada | 3.63 |
| Community engagement | 3.42 |
| LOCAL awareness of culture, regional pride, understanding of regional assets | 3.62 |
| **VISITOR awareness of regional culture, heritage and assets** | **3.83** |
| Increased understanding and appreciation between residents and visitors | 3.41 |
| Collaboration and communication between regional public-private sector | 3.62 |
| Development of partnerships | 3.68 |

**AVG:** 3.35

| ECONOMIC IMPACTS |  
|---------------------------------------------|---|
| **Revenue generation for local government and business** | **3.72** |
| Increased number of visitors | 3.47 |
| Shift in type of visitors (attract geotourists) | 3.25 |
| Increased visitor spending and length of stay | 3.5 |
| More consistent visitation throughout the year | 3.58 |
| More visitors return to the Sierra more often | 3.58 |
| Economic Development and/or Investment | 3.22 |

**AVG:** 3.47

| SOCIAL AND ENVIRONMENTAL IMPACTS |  
|---------------------------------------------|---|
| Distribute tourism impact | 3.26 |
| Increased responsible business practices and education of local business owners/land managers | 3.09 |
| Increased environmental stewardship and education of RESIDENTS | 3.29 |
| Increased environmental stewardship and education of VISITORS | 3.48 |
| Increase in destination-supportive activities (service projects, donations, volunteering) | 3.32 |
| **Promotion of sustainable tourism** | **3.65** |

**AVG:** 3.35
2. Are geocouncil members including the geotourism project in your promotion efforts? (eg. linking to the geotourism website through your organization’s website)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>69%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Comment: “Site does not function well enough to be a primary referral.”

3. Perceptions of Geocouncil members are summarized below. For full responses see Appendix L.

- **On reasons for involvement in the project and Geocouncil participation**
  Twenty-five percent of respondents made reference to economics—revenue generation for local businesses. Twenty-five percent of respondents also expressed the importance of honoring historical and cultural heritage. Geocouncil members are generally interested in directing visitors to appropriate tourism providers, frequently emphasizing environmental sustainability.

- **Suggestions for important evaluation metrics to be considered**
  A majority of respondents suggest website statistics—number of “hits” and page views, time spent on site. One member suggested volume of tourists, increase in revenue and surveys to business owners.

- **On challenges and successes experienced so far**
  Several references were made to success in diverse collaboration of people. The most common critique involved dissatisfaction with the website, one concern being the dilution of geotourism message by flooding the map with nominated sites. Challenges include securing sustainable funding, raising project awareness in local communities and stimulating local interest in the project. Noteworthy comment: One member describes the role of the geocouncil in educating chambers of commerce, and other commercial entities who nominate inappropriate sites, about the basic concepts of geotourism. Businesses may modify their business plans to reflect geotouristic standards in order to get onto the map.

- **On value of National Geographic partnership and guidance**
  There is strong consensus among all geocouncil members the National Geographic brand affiliation is extremely valuable, adding “credibility” and “legitimacy.” As stated by one respondent, “the partnership is absolutely critical to the project’s success.” Regarding National Geographic’s role providing guidance through project implementation, a majority of respondents had no personal involvement and did not know what NG’s role is. One member stated, “Their guidance appears to be at an arm’s length, which I like.” One member expressed desire for more explicit direction from NG in the nomination screening process, describing why guidelines for interpreting “authenticity” would be beneficial.

- **On experiencing resistance during collaboration efforts**
  A vast majority of respondents have experienced very positive interactions with local chambers, tourist and visitor bureaus. One member did experience resistance from a local tourism entity due to the perception of a time intensive nomination process.
• **Suggestions on how to improve the project and its impact**
  A majority of respondents believe the website needs a lot of work—that the user interface and nomination process need to be improved. Additional suggestions include creating suggested geotourism itineraries; increase visibility of the project outside of the Sierra Nevada; and keeping the website current by re-opening nominations every 18 months to capture new business and events. “This would allow more people, businesses and land management agencies to get involved over time and create almost a continuous string of news coverage.”

• **On effectiveness of project manager**
  All respondents believe that the project manager is highly effective.

• **Suggestions for next steps, both long and short term**
  Continuity of outreach; collecting data to measure success; keeping website current; and finding and securing funding are the main points raised by geocouncil members.
Project Snapshot:

GREATER YELLOWSTONE GEOTOURISM
Since 2009

Regional Highlights
Centered around Yellowstone and Grand Teton National Parks, this bioregion straddles Wyoming, Montana, and Idaho, including about 20 million acres of land in 20 counties. Rich biodiversity, scenic landscapes, and diverse cultural history spread over rugged mountains, river valleys, high desert plains, and unique small towns and cities. The mosaic of culture present in the Greater Yellowstone region has roots in Native American tribal heritage, explorers, ranchers, farmers and miners, recreation, railroads, the Wild West and the New West.

As on of the largest intact temperate ecosystems in the world, this region is home to large wildlife populations, “still home to virtually all of the wildlife species encountered by Lewis and Clark’s Corps of Discovery (GYG 2011). Three major river systems are born in this region—the Yellowstone, the Snake, and the Green River. Public wildlands surrounding Yellowstone, the world’s first national park, and the dramatic landscapes of the Tetons offer plentiful outdoor recreation activities to residents and travelers alike.

Role of Geotourism in Greater Yellowstone
Like many parts of the mountain West, this region is growing rapidly, “in large part, because of the lure of areas that couple natural amenities with attractive and welcoming communities (GYG 2011).” The Geotourism strategy was adopted to
foster a conservation and sustainability mindset within our communities and attract people seeking quality, meaningful and enlightening vacation experiences (2010, Yellowstone).”

**Project Structure**

**Funding Partners**
Bureau of Land Management, Greater Yellowstone Coalition, Idaho Tourism, National Park Service

**Project Management**
- **Project Manager (2011):** Tim O’Donohue director of Jackson Hole Chamber of Commerce
- **Yellowstone GSC** - The Yellowstone GSC consists of about 16 people, with 8 executive members. So far they have primarily been involved in MapGuide distribution, but are hoping to expand role. O’Donohue wants to see the GSC fulfill its potential role as a strong advocacy body. The GSC could get more involved with legislation to protect and promote geotouristic assets, fighting against unfavorable development and threats to key assets. The GSC has the resources to help sustain these assets.

**Project Goals**

The Greater Yellowstone GSC defined its role to:

- Serve as a catalyst and guide for local communities to discover, plan for, celebrate, promote, and sustain* their own distinctive geotourism assets.
- Provide recognition for those individuals, organizations, businesses,
agencies, and communities that contribute to the formation and sustainability of geotourism assets.

• Monitor these assets to help ensure that they are sustained.
• Support local communities in representing these assets to local, State, regional, and federal organizations and agencies,
• Support local communities in the protection of these assets, and
• Encourage and facilitate partnerships and networks for performing the above functions.

*Sustaining in this usage means environmental, economic, and cultural promotion, preservation, and integrity.

Additional goals stated by GSC members are to:

• Establish the Greater Yellowstone Region’s listing of qualified sustainable assets—natural, cultural and organizational—and map them for both informative and promotional purposes.

**Measuring Success of Greater Yellowstone Geotourism**

NGS gauges overall success of Greater Yellowstone Geotourism with the following metrics:

- 250,000 mapguides printed
- 30 public forums held in the tri-state region
- 1,200 site nominations.
- 40 print media hits reached over 1.4 million readers, including the London Daily Telegraph audience. NBC Today Show and MSNBC reported the project in national television broadcasts in the US.
  April 8, 2009 to Jan 24, 2010 – 21,648 unique visits – 1352 subscribers = 6% conversion
• 148 local content contributors providing 103 active content for website entries
• 63 newspaper, web, radio and TV reports on file
• $200,000 in additional funding post completing map and website

Project manager, Tim O’Donohugue, has been using the following ‘Dashboard Metrics,’ including Google analytics used for at-a-glance MOS. Metrics include:

website hits; number of mapguides; Geotourism Center progress; how much funding (most funding comes from MapGuides).

<table>
<thead>
<tr>
<th>Dashboard Metrics</th>
<th>7/1/09</th>
<th>10/1/09</th>
<th>1/1/10</th>
<th>3/1/10</th>
<th>7/1/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mapguide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Mapguides Produced (Total to Date)</td>
<td>250,000</td>
<td>250,000</td>
<td>250,000</td>
<td>250,000</td>
<td>492,857</td>
</tr>
<tr>
<td># of Mapguides Distributed</td>
<td>59,827</td>
<td>120,693</td>
<td>153,240</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Percentage of Mapguides Distributed</td>
<td>24%</td>
<td>48%</td>
<td>61%</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Rate of Distribution (per month)</td>
<td>15,395</td>
<td>20,116</td>
<td>25,540</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Website</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Users (Content/Field Contributors)¹</td>
<td>132</td>
<td>137</td>
<td>148</td>
<td>156</td>
<td>165</td>
</tr>
<tr>
<td># of Subscribers²</td>
<td>861</td>
<td>1,253</td>
<td>1,317</td>
<td>1,436</td>
<td>1,648</td>
</tr>
<tr>
<td># of Active Content Entries</td>
<td>80</td>
<td>85</td>
<td>98</td>
<td>108</td>
<td>119</td>
</tr>
<tr>
<td>Total Number of Unique Visitors</td>
<td>6,477</td>
<td>6,245</td>
<td>8,118</td>
<td>23,223</td>
<td>29,573</td>
</tr>
<tr>
<td>Monthly Average of Unique Visitors</td>
<td>2,159</td>
<td>2,082</td>
<td>2,706</td>
<td>2,111</td>
<td>2,112</td>
</tr>
<tr>
<td>Page Views Per Visitor</td>
<td>3.55</td>
<td>3.37</td>
<td>3.60</td>
<td>3.49</td>
<td>3.47</td>
</tr>
<tr>
<td>Interpretive Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cost ($)</td>
<td>1,800,000</td>
<td>1,800,000</td>
<td>1,800,000</td>
<td>1,500,000</td>
<td>TBA</td>
</tr>
<tr>
<td>Total Funding Raised ($)</td>
<td>1,200,000</td>
<td>1,200,000</td>
<td>1,200,000</td>
<td>1,300,000</td>
<td>TBA</td>
</tr>
<tr>
<td>Percentage of Funding Raised</td>
<td>67%</td>
<td>67%</td>
<td>67%</td>
<td>87%</td>
<td>TBA</td>
</tr>
</tbody>
</table>

¹Users as persons who have permission to create content for the website
²Subscribers are people that have come by the website (in the general public) and have signed up to receive a MapGuide, Save to My Favorites, receive eNews etc. They don’t have permission to create content.

**Key Project Features and Metrics**

• Funding is primary challenge

Phase 1 was successful. Need ongoing funding to keep site running. States do not have funding for more Mapguides.
• **Education to protect natural environment**

“In Jackson Hole, the lands are what we strive to promote and protect – which is a paradox to be balanced much like the National Park Service. Any project must have a strong educational component, we’re working towards that to promote and protect the natural environment. We want to avoid the increase in commercial development that causes towns and small cities to lose their original character.”

• **Asset Inventory**

An inventory of assets could be established by each community in the beginning of the project (unique event/place/natural feature, etc). Characterize the health of each and monitor long-term change.

• **Wildlife Metric**

According to studies, the primary reason that people travel to Wyoming is for the wildlife (and secondly geothermic features). Could measure environmental health as a metric; use wildlife bio studies and animal counts as an indicator.

• **Geotourism Visitor Center**: The first and only Geotourism Visitor Center is under development in Driggs, Idaho. Exciting new addition to the project.

• Important to measure not only the **amount** of incoming funding to keep the
project going, but also **diversity** of sources. “Strong projects come from a wide variety of investors (2010, Yellowstone).”

**Recommendations to NGS**

- A more rigorous nomination process. At first effort, there were about 700 MapGuide nominations, but many were incomplete and only complete nominations can go on the site. 200 were selected for the MapGuide. Only nominations with complete info should be allowed, otherwise they have to fill incomplete info, which is hard.

- Address sources of funding from the very beginning

- Ideally, projects will be able to hire a Geotourism manager. Right now there is nobody consistently working on funding. A Geotourism manager could work on things like: promotions to drive people to the website; be thoughtful about project sustainability.
Greater Yellowstone Program Sustainability Assessment
March 2011

Project Management

*Current stage of project*
Approximately 493,000 mapguides printed. Website operational.

*Number of active GSC members*
24

*Who are the key management partners?*
The offices of Tourism for Wyoming, Montana, and Idaho, the Yellowstone Business Partnership, the Jackson Hole Chamber of Commerce, and the Teton Valley Chamber of Commerce.

*What are their roles?*
The offices of tourism are sources of funding and strategic direction. The Yellowstone Business Partnership is the potential contractor for managing the geotourism project. The Jackson Hole Chamber of Commerce is currently managing the project as well as providing the Chair for the GSC. The Teton Valley Chamber of Commerce is developing the Greater Yellowstone Geotourism Center.

MapGuide Activity

*Number of mapguides distributed*
Approximately 225,000

*Percent distribution*
46% (225,000/493,000)

*Rate of distribution*
10,227 per month

Website Activity

*Number of unique content providers: 174 users*
*Number of active content providers: 173 users*
*Number of subscribers: 1891 subscribers*
*Unique Visitors: 35,187 unique visitors*
*Monthly content view: 5,440 page views*

Social Media
No Facebook account
No Twitter account

Funding
Current total funding: $5,000/year (for website hosting)
Name and amount of each funding source:
Wyoming, Montana, and Idaho offices of tourism fund 1/3 each of the $5,000.
Prospective funding: TBD
Number of grant applications: 3
Operating budget: $5,000/year
Marketing budget: $0

Planning
Strategic plan exists? No
Major goals of project for next 12 months: TBD
Major goals for next 3 years: TBD

Promotions
Percent of funding spent on promotions:
0%, unless website hosting and maintenance is considered promotions; if so, then 100%
Number of articles written involving geotourism project area: unknown
Number of trade and travel conferences attended: 0
Greater Yellowstone GSC Assessment Results
April 2011

1. Greater Yellowstone GSC members rated project impacts in a variety of areas. Ratings are based on a five-point scale:
   1-No Impact
   2-Low Impact
   3-Moderate Impact
   4-Highly Beneficial Impact
   5-Extremely Beneficial Impact

Eight council members have completed this assessment as of April 17, 2011. Impacts related to regional identity and collaboration are more pronounced than other impact areas, a theme which has been consistent across all other projects to complete this assessment (COTC, Sierra Nevada). The top three ranked impacts are:
   1. Development of partnerships (3.9)
   2. Collaboration and communication between public and private sector (3.8)
   3. Visitor awareness of regional culture, heritage and assets. (3.8)

Generally, these results display moderate impacts and serve as baseline data. Continuing to regularly administer this assessment in the future will allow us to see how these impacts change with time.
Increased environmental stewardship and education of VISITORS

Increased environmental stewardship and education of RESIDENTS

Increased responsible business practices and education of local business owners/land managers

Promotion of sustainable tourism

Increase in destination-supportive activities (service projects, donations, volunteering)

Distribute tourism impact
Top-ranked impacts are highlighted below:

<table>
<thead>
<tr>
<th>ENVIRONMENTAL AND SOCIAL IMPACTS</th>
<th>Average Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribute tourism impact</td>
<td><strong>3.5</strong></td>
</tr>
<tr>
<td>Increased responsible business practices and education of local business owners/land managers</td>
<td><strong>3.3</strong></td>
</tr>
<tr>
<td>Increased environmental stewardship and education of RESIDENTS</td>
<td><strong>3.0</strong></td>
</tr>
<tr>
<td>Increased environmental stewardship and education of VISITORS</td>
<td><strong>3.3</strong></td>
</tr>
<tr>
<td>Increase in destination-supportive activities (service projects, donations, volunteering)</td>
<td><strong>3.3</strong></td>
</tr>
<tr>
<td><strong>Promotion of sustainable tourism</strong></td>
<td><strong>3.4</strong></td>
</tr>
<tr>
<td><strong>AVERAGE</strong></td>
<td><strong>3.3</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECONOMIC IMPACTS</th>
<th>Average Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue generation for local government and business</td>
<td><strong>3.3</strong></td>
</tr>
<tr>
<td>Increased number of visitors</td>
<td><strong>3.0</strong></td>
</tr>
<tr>
<td>Shift in type of visitors (attract geotourists)</td>
<td><strong>3.3</strong></td>
</tr>
<tr>
<td>Increased visitor spending and length of stay</td>
<td><strong>3.0</strong></td>
</tr>
<tr>
<td>More consistent visitation throughout the year</td>
<td><strong>3.0</strong></td>
</tr>
<tr>
<td>More visitors return to the Greater Yellowstone region more often</td>
<td><strong>3.3</strong></td>
</tr>
<tr>
<td>Economic Development and/or Investment</td>
<td><strong>3.0</strong></td>
</tr>
<tr>
<td><strong>AVERAGE</strong></td>
<td><strong>3.1</strong></td>
</tr>
<tr>
<td>REGIONAL IDENTITY AND COLLABORATION IMPACTS</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>Creation of a regional identity for Greater Yellowstone</td>
<td>3.5</td>
</tr>
<tr>
<td>Community engagement</td>
<td>3.5</td>
</tr>
<tr>
<td>LOCAL awareness of culture, regional pride, understanding of regional assets</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>VISITOR awareness of regional culture, heritage and assets</strong></td>
<td><strong>3.8</strong></td>
</tr>
<tr>
<td>Increased understanding and appreciation between residents and visitors</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Collaboration and communication between regional public-private sector</strong></td>
<td><strong>3.8</strong></td>
</tr>
<tr>
<td>Development of partnerships</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>AVERAGE</strong></td>
<td><strong>3.6</strong></td>
</tr>
</tbody>
</table>

**GSC ASSESSMENT OPEN-ENDED RESPONSES**

2. Are you including this Geotourism project in your promotion efforts? (eg. linking to the geotourism website through your organization’s website)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>71%</td>
<td>29%</td>
</tr>
</tbody>
</table>

**Comments**

- Not a lodging property or tourism entity. We do link to Top 10 Scenic Drives in the N. Rockies
- We have included info in print and web publications
- Have links to Greater Yellowstone and Crown of the Continent Geotourism Websites on Montana’s state site: www.visitmt.com

3. Perceptions of GSC members are summarized below. For full responses, refer to Appendix M.

- **On reasons for involvement in the project and GSC participation**
  GSC members emphasize desire to attract geotourists to Greater Yellowstone region; National Geographic brand affiliation; and recognition as sustainable business.

- **On effectiveness of geotourism website**
  No complaints with Geotourism map and functionality; however, one GSC member commented that the project website creates unnecessary competition with all the partner websites. This opinion was shared by a few members of Sierra Nevada and COTC projects as well.

- **Suggestions for additional evaluation indicators that may supplement current metrics:**
  - Number of nights staying in region;
  - Precise locations visited;
- Dollars spent per day;
- Number of visitors attracted by geotouristic values/sustainable tourism practices;
- Amount of locally produced goods, foods, services sold and/or make up a % of inventory available to visitors and residents by businesses and organizations operating in the region.
- Collect information with on the ground surveys; surveying listings on geotourism websites; follow up surveys with visitors (GeoConsensus database); cooperative promotions organized by geotourism region partners with follow up conversion surveys of respondents.

- **On successes and challenges experienced during implementation**
  Successes: Creation of website and MapGuide; greater visibility; progress toward geotourism center
  Challenges: lack of opportunity for continued funding; time investment; need part of full time paid coordinator to move project forward; incorporating the concept into promotions is a continuing challenge.

- **Suggestions for improving project and it’s impact**
  GSC members highlight need for coordination and consistent management; an overall promotion plan; and strong need to secure funding. One member suggests disbanding promotion of geotourism site and relocating online MapGuides to partner websites.

- **On next steps, both long and short-term**
  GSC members stress importance of funding, for both long and short term; buy-in from Chambers of Commerce in tri-state region; assimilation of geotourism map onto partner sites; complete the Driggs visitor center; focus on promotion and building project awareness.

- **On potential membership fee to sustain the website and GSC activities**
  One member proposes $300-$500 per year to be a reasonable fee. Member suggests that this funding opportunity be combined with funding sources (eg, retail sales online through geotourism website).
Regional Highlights
The Cascade mountain range of the Pacific Northwest is a dramatic landscape of natural destruction and renewal—shaped by volcanic eruptions, massive Ice Age floods, and powerful glacier. Much of the land consists of public lands managed by the national government—including Mount Hood, Mount Rainier and Crater Lakes National Parks, and Mount St. Helens National Volcanic Monument. It is a region of rich native heritage, where Native Americans share a rich tapestry of traditions shaped by different terrains and cultures, bound together by a close connection to the land.

Role of Geotourism in Central Cascades
The Central Cascades region of Oregon and Washington encompasses a vast array of small communities who will benefit from engagement to support geotourism principles. This initiative is aimed at serving rural communities who want to promote sustainable, niche tourism markets. Communities can celebrate sense of place, and the MapGuide supports this by highlighting seven themes of the Central Cascades: "Sculpted by water, fire and ice; Northwest tribes; Our roots; Adventurous spirits; A place for refuge and recreation; Local visionaries; and Nature's bounty (Central Cascades 2011)."
Project Structure

Funding Partners
Travel Oregon and Experience Washington

Project Management
• **Project Manager (2011):** Kristin Dahl, Travel Oregon
• **Central Cascades Advisory Council:** Comprised of 10 members who are responsible for geotourism marketing and project management

Goals
Central Cascades GSC defined its goals of the project in 2009, to:

• Provide a vehicle for communities to celebrate sense of place (as defined by the definition of geotourism) and to give small communities a sense of hope and self-determination;
• Increase the local economic benefit from the traveler;
• Educate communities on how they can capitalize on growing tourism niches (bicycling, birding, culinary, agri-tourism, edu-tourism, heritage tourism, sustainable/green tourism);
• Promote local ownership of the project and the cooperation of non-traditional partners; and
• Support environmental conservation and cultural preservation at the local level.
Measuring Success of Central Cascades Geotourism

Metrics for measuring success prior to this research include:

<table>
<thead>
<tr>
<th>Central Cascades of Washington and Oregon (2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 50,000 mapguides printed</td>
</tr>
<tr>
<td>• MapGuide to be inserted in May western US edition of NG Traveler</td>
</tr>
<tr>
<td>• 1,400 site nominations</td>
</tr>
<tr>
<td>• 40 geo-forums held in the region</td>
</tr>
<tr>
<td>• 37 newspaper, TV, radio and web media reports on file</td>
</tr>
</tbody>
</table>

Key Project Features and Metrics

• Oregon and Washington states went separate ways after launch of Mapguide/website. There were not enough resources to continue collaboration and operating on a statewide level is more manageable.

• The Central Cascades Geotourism website is not Geoconsensus-enabled.

• No marketing dollars since launch of map; web traffic is low.
During a meeting with the Central Cascades GSC in January 2010, the following MOS goals, corresponding indicators, and data collection options were compiled.

<table>
<thead>
<tr>
<th>Goal</th>
<th>Indicator</th>
<th>Data Collection Possibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local economic benefit</td>
<td>Number of visitors to sites on MapGuide; Overnight lodging increase in area</td>
<td>Subset sites on MapGuide and website. Use sites that would not likely receive increased traffic without project involvement; Subset communities by zipcode</td>
</tr>
<tr>
<td>Type of business license</td>
<td>Business inventory of subset communities within region</td>
<td>Continuation or emergence of sustainable, appropriate forms of tourism</td>
</tr>
<tr>
<td>Visitor perceptions/attitudes</td>
<td>Visitor satisfaction/attitude surveys</td>
<td>Visitor surveys through state run visitor information centers or DMOs</td>
</tr>
<tr>
<td>Understand traveler demand</td>
<td>Resident attitude/perception surveys</td>
<td>Go through GSC contact database; 5-10 questions gauging temperature in community attitudes towards tourism/geotourism</td>
</tr>
<tr>
<td>Community Empowerment and Engagement</td>
<td>Community participation in geotourism forums</td>
<td>Survey: communities putting in for sustainable tourism</td>
</tr>
<tr>
<td></td>
<td>Community intent</td>
<td>Number of community outreach efforts related to geotourism</td>
</tr>
<tr>
<td></td>
<td>Measure attendance at events</td>
<td>related grants?</td>
</tr>
<tr>
<td>Education/Interpretation</td>
<td>Community interpretation of unique features; community’s unique story</td>
<td>Survey database of community contacts. Check all that apply; Do you have: brochure, historic signs, museum, self select category</td>
</tr>
<tr>
<td>Participation/contribution to conservation initiatives</td>
<td>Are communities channeling money into conservation?</td>
<td>Survey businesses on MapGuide</td>
</tr>
<tr>
<td>Tourism planning: alignment with geotourism principles</td>
<td>State tourism plans; Community Action Plans</td>
<td>Analysis of tourism plans</td>
</tr>
<tr>
<td>Small scale follow-up activities post MapGuide launch</td>
<td>Existence of travel philanthropy, give-back programs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of follow-up activities post MapGuide release</td>
<td></td>
</tr>
</tbody>
</table>
Project Snapshot:

REDWOOD COAST GEOTOURISM
Since 2009

Regional Highlights
The Redwood Coast bioregion is one exceptional diversity, encompassing six counties and X square miles from San Francisco Bay to Oregon. Notable features include ancient forests of Redwood State and National Parks; Clear Lake, the largest freshwater body within California; and snowy peaks of the Coast Range and Klamath Mountains. Natural habitats range from coastal cliffs and estuarine salt marshes, to hilly oak woodlands and river canyons, to alpine forests and meadows. The region is also rich with culture, with diverse history of occupancy by indigenous tribal societies, Spanish missionaries, Russian fur traders, miners and loggers of “boom times”, and ‘counter-culture’ movement of the 1960’s.

Role of Geotourism in Redwood Coast
From Point Reyes National Seashore in the south to Smith River National Recreation Area in the north, the project aims to promote innovative tourism that will benefit residents and visitors in ways that are both environmentally and economically sustainable. According to Jim Dion, a founding reason for initiation of Redwood Coast geotourism was development of economic stimulus outside of the medical marijuana industry.
**Project Structure**

**Funding Partners**
North Coast Tourism Council, Bureau of Land Management and local communities of California's North Coast.

**Management of Redwood Coast Geotourism**
- **Project Manager (2011):** Richard Strom, Mendocino County Tourism
- **Geotourism Stewardship Council**
  The Redwood Coast GSC represents a variety of geotourism perspectives in the six participating counties of west Marin, Sonoma, Mendocino, Lake, Humboldt, and Del Norte. GSC members represent communities, historic preservation, natural resources, public lands management, indigenous peoples, traditional and local arts, agriculture, tourism promotion, and local businesses.

**Project Goals**
- Uphold principles of geotourism (no alternative statement of project goals).
  
As stated on [www.visitredwoodcoast.com](http://www.visitredwoodcoast.com), goals are to:
  
  o Provide authentic, enriching experiences for visitors
  
  o Acquaint tourists with local culture and traditions and offers them in-depth opportunities to enjoy the area's unique natural beauty and biodiversity.
Benefits the environment by encouraging sound destination stewardship that keeps growth to sustainable levels and limits negative impacts such as overcrowding and resource pollution.

Measuring Success of Redwood Coast Geotourism

<table>
<thead>
<tr>
<th>Redwood Coast California (2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• First website only project</td>
</tr>
<tr>
<td>• Strategic partnership with Monterey Bay Sanctuary Foundation providing $70,000 in funding for NG to create the website and the Federal Geotourism MOU partners a $70,000 match to implement the project locally</td>
</tr>
<tr>
<td>• Over 850 unique site nominations received between January and May 2009.</td>
</tr>
<tr>
<td>• Over 3,000 people engaged in public meetings in the region</td>
</tr>
<tr>
<td>• Media coverage in every major newspaper from Crescent City to Fort Bragg</td>
</tr>
<tr>
<td>• <a href="http://www.visitredwoodcoast.org">www.visitredwoodcoast.org</a> - Soft launched January 21st 2010</td>
</tr>
<tr>
<td>• 372 local content contributors providing 223 active content for website entries</td>
</tr>
<tr>
<td>• Official roll out event on March 11th in Scotia, Cal. Mike Fay featured speaker</td>
</tr>
</tbody>
</table>

Key Project Features and Metrics

• No marketing budget, no staff, no real activity since launch

• Trying to combine the geotourism site, visitredwoodcoast.com with the North Coast Tourism Council website. “We do not need two underperforming sites on the same area.”
Redwood Coast Preliminary GSC Assessment*

*Preliminary results from Redwood Coast program manager. The entire Redwood Coast GSC has not yet completed this assessment.

- **On successes and challenges communicating within the geocouncil:** Our council has basically been dormant since the web site went live. There are a few of us who continue to be involved but we all have other jobs and little time to manage and enhance the site.

- **How would you rate the success of your project in creating new partnerships?** It has helped us make people aware of others and partnership possibilities.

- **Please list and describe the number and degree of success of geotourism related activities you have undertaken since mapguide release.** None

- **If you have been involved in community outreach programs, how successful were they in terms of interest and attendance?** They were very successful and generated a lot of nominations and enthusiasm.

- **In your opinion, where is National Geographic's geotourism project cycle in need of improvement?** Please comment on challenges and/or successes experienced during the implementation of this project so far. We need money and technical support. We need help with a business plan pointing us toward sustainability.

- **How effective has the website been? Have you contributed to the online content? In what capacity have you contributed? Are there any changes to the website that you would like to see made? What can be done on the website to drive more traffic and increase visibility of the project?** The web site is beautiful and easy to navigate. I personally entered about 30 sites on the map and augmented many others by adding photos and links.

- **Has the project manager/coordinator been effective in facilitating internal and external communication, and has he/she strived to meet the project goals? What have been the strengths and weakness of the project manager/coordinator during this process?** Our project manager is very part time and a volunteer. He has done what he could do as a portal editor but hasn’t had the time or money to embark on any initiatives such as newsletters or outreach. We desperately need a part time paid coordinator and other monies for SEO and SEM.
• In your opinion, what are the next steps (both short and long term) that need to be taken by the GSC in order to keep this project moving forward?
  We have a marketing plan involving retail, ad space, newsletters etc. but before we can sell anything we need to have a site which is attractive and worth the money.
Project Snapshot:

FOUR CORNERS GEOTOURISM
Since 2010

Regional Highlights
The Trail of the Ancients Scenic Byway traverses an incredibly unique portion of the American Southwest, passing through the four states of Colorado, Utah, Arizona and New Mexico. Within the geographic circle defined by Trail of the Ancients lie six National Parks, thirteen National Monuments, numerous Wilderness Areas, and twenty-four Native American tribes.

Great diversity also characterizes present-day Native American communities along Trail of the Ancients. Pueblo groups, including Hopi, Zuni peoples; the Navajo Nation covers a vast territory of 16 million acres in Utah, Arizona and New Mexico; The Jicarilla Apaches live in the high desert and mountains of Northwest New Mexico, and the Southern Ute and Ute Mountain Ute Reservations occupy Southwest Colorado from Pagosa Springs to the Utah line. The tapestry of Native American, Spanish and European cultures has stimulated a multi-cultural collage of food, music, religion, architecture, ceremony, and commerce in the Four Corners Area.

Along the Trail of the Ancients, travelers are exposed to a vast timeline of geography, human settlement and culture, and many forms of political and social organization. Considering the highly fragmented political and social organization in the region, creation of regional identity through geotourism presents both opportunity and challenge.
**Role of Geotourism in Four Corners**

Faced with energy development, water scarcity, climate change, and future growth, local stewardship of area resources is vital. By developing a Mapguide to educate the visitor and thereby sustain the geographic character of the Four Corners Area, in the process local residents will become more aware and appreciative of the legacy they have inherited.

**Key Project Features and Metrics**

- Water defines life in the Four Corners. Project boundaries defined by watersheds.
- Launched with unveiling of Four Corners National Monument

**Project Structure**

**Funding Partners**

One of the most grassroots of project; no umbrella authority; most support come in very small chunks; Managed by Trail of the Ancients Scenic Byway; Funded by Navajo Department of Transportation, Southern Utah, and the State of New Mexico and BLM.

**Management of Four Corners Geotourism**

- **Project Manager:** Susan Thomas

- **Four Corners GSC:** The Four Corners GSC is a extraordinarily diverse entity of 35 members representing regional stakeholders, with active participation from tribal groups—Ute, Zuni and Navajo Nation. The council is open to any and all who want to participate. Beyond development of geotourism map
products, the group is interested in moving into an advocacy role in the future to protect against destruction of regional assets by extractive natural resource industries.

**Project Goals**

- Empower local residents to protect landscapes and cultures
- Engage tribes. Many tribal groups claim connection to lands within the region. Including all involved stakeholders in creation of the Mapguide is high priority.

**Measuring Success of Four Corners Geotourism**

- Considering the history of the four funding partners of Four Corners Geotourism—Navajo Department of Transportation, Southern Utah, the State of New Mexico and BLM—project collaboration in itself is a measure of success.
- High level of engagement with native tribes.
DISCUSSION

Articulating Success to Date
At this point in time, the strongest conclusive evidence of project success is in the theme of Regional Identity and Collaboration. Through the GSC Assessment and interviews, stakeholders articulated greater impacts in areas related to Regional Identity and Collaboration than any other theme group. The GSC Assessment is structured so that theme groups can be compared between projects. The graphic below demonstrates a comparison of Regional Identity and Collaboration Impacts in Sierra Nevada (2010) and Crown of the Continent (2008). The more established project, Crown of the Continent, has more pronounced impacts than the new initiative, Sierra Nevada. This may be a function of time or destination-specific features. Continuing to make these comparisons between projects over time will facilitate understanding of project impacts.
**Future MOS Instrument Development**

The MOS methodology proposed in this report is built on best available knowledge at the time of my research; however, as the geotourism program model continues to evolve the MOS instruments should too. I encourage future MOS analysts to use this research as a resource to continually improve and develop geotourism evaluation tools.

As development of MOS instruments continues, it is important to be mindful of the limited financial and human resources of projects. Ideally, instruments will be integrated into project websites where possible to facilitate automatic data collection wherever possible. As stated by Jim Dion, “We need to not only identify indicators but give destinations the tools to be able to collect the data, assuming that no one knows how to do this.”

**Customizing MOS Instruments**

Ultimately each project needs to account for it’s unique challenges and goals when implementing MOS surveys. I recommend using contents of the proposed data collection instruments as a menu to select from to customize tools for the destination’s unique interests. Alternatively, destinations could be required to include a percentage of the developed metrics and supplement additional indicators that are specific to the destination. This would allow a large degree of consistency across all projects while still customizing content to meet destination-based needs.
**Implementation**

Initial site nominations could serve as a source of baseline data by adding a few simple questions. For example, when uploading site nomination forms content providers could be asked, “What do you want to impact?” This question may be related to Principles of Geotourism or to more specific project-specific goals.

Opportunity exists for web survey tools to also function as educational tools. Assessment and survey results that are relevant to content providers may be concisely reported and delivered in e-letters, distributed through Geoconsensus. Mapguide businesses will likely be more invested in participating in surveys if they are receiving valuable information in exchange.

**Collective Challenges, Upcoming Opportunities**

**Income-Generating Project Model**

The greatest obstacle seen by all geotourism initiatives is in funding and longevity. These issues are cited as the greatest challenge to project success by a majority of GSC stakeholders. As a solution, NGS and all Western States projects have prioritized development of an income-generating geotourism project model during 2011. To make GSCs sustainable, NGS and GSC partners are developing ways to generate money through project websites. Potential methods of producing income streams include:

- Micro-advertising on websites;
- Redesigning maps for retail sale;
• Providing regional geotourism itinerary tours and academic travel programs;
• Creating commerce opportunity for small enterprises through website.

These initiatives are important in terms of MOS development because they will create an opportunity to measure project income streams as an economic success indicator, which has never before been possible.

**Sustainability Recognition**

Currently there is no way to remind a visitor when they are visiting a geotourism-approved location. Providing businesses with a geotourism sticker or plaque to display in reception areas will be means of creating brand and sustainability recognition, creating a link between map location and visitor behavior.

**Monitoring MapGuide Usage**

This MOS methodology is based on the web-based MapGuide; however, collecting data from use of the print MapGuide would be a beneficial addition. How do travelers use the MapGuide? One possibility for collecting this information is putting a sticker on percentage of MapGuides directing users to an incentive-based survey. For example, mark 10,000 MapGuides with stickers—‘Tell us how you used this map. Enter to win X.’
APPENDICES

A: Principles of Geotourism
B: Geotourism MapGuide Projects
C: Crown of the Continent GSC
D: NGS Background on GSCs
E: NGS Measures of Success
F: Western States Geotourism Council Members
G: Round 1 Interview Guide
H: Round 2 Metrics Menu
I: Round 2 Questionnaire
J: GSTC Indicators
K: COTC GSC Assessment
L: Sierra Nevada Geocouncil Assessment
M: Greater Yellowstone GSC Assessment
# APPENDIX A:
## PRINCIPLES OF GEOTOURISM

<table>
<thead>
<tr>
<th>Principle</th>
<th>Detailed Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integrity of Place</strong></td>
<td>Enhance geographical character by developing and improving it in ways distinctive to the locale, reflective of its natural and cultural heritage, so as to encourage market differentiation and cultural pride.</td>
</tr>
<tr>
<td><strong>Land Use</strong></td>
<td>Anticipate development pressures and apply techniques to prevent undesired overdevelopment and degradation. Contain resort and vacation-home sprawl, especially on coasts and islands, so as to retain a diversity of natural and scenic environments and ensure continued resident access to waterfronts. Encourage major self-contained tourism attractions, such as large-scale theme parks and convention centers unrelated to character of place, to be sited in needier locations with no significant ecological, scenic, or cultural assets.</td>
</tr>
<tr>
<td><strong>Market selectivity</strong></td>
<td>Encourage growth in tourism market segments most likely to appreciate, respect, and disseminate information about the distinctive assets of the local</td>
</tr>
<tr>
<td><strong>Tourist Satisfaction</strong></td>
<td>Ensure that satisfied, excited geotourists bring new vacation stories home and send friends off to experience the same thing, thus providing continuing demand for the destination.</td>
</tr>
<tr>
<td><strong>Community involvement</strong></td>
<td>Base tourism on community resources to the extent possible, encouraging local small businesses and civic groups to build partnerships to promote and provide a distinctive, honest visitor experience and market their locales effectively. Help businesses develop approaches to tourism that build on the area’s nature, history and culture, including food and drink, artisanry, performance arts, etc.</td>
</tr>
<tr>
<td><strong>Community benefit</strong></td>
<td>Encourage micro- to medium-size enterprises and tourism business strategies that emphasize economic and social benefits to involved communities, especially poverty alleviation, with clear communication of the destination stewardship policies required to maintain those benefits.</td>
</tr>
<tr>
<td><strong>International Codes</strong></td>
<td>Adhere to the principles embodied in the World Tourism Organization’s Global Code of Ethics for Tourism and the Principles of the Cultural Tourism Charter established by the International Council on Monuments and Sites (ICOMOS)</td>
</tr>
<tr>
<td><strong>Market diversity</strong></td>
<td>Encourage a full range of appropriate food and lodging facilities, so as to appeal to the entire demographic spectrum of the geotourism market and so maximize economic resiliency over both the short and long term.</td>
</tr>
<tr>
<td><strong>Protection and enhancement of destination appeal</strong></td>
<td>Encourage businesses to sustain natural habitats, heritage sites, aesthetic appeal, and local culture. Prevent degradation by keeping volumes of tourists within maximum acceptable limits. Seek business models that can operate profitably within those limits. Use persuasion, incentives, and legal enforcement as needed.</td>
</tr>
<tr>
<td><strong>Conservation of Resources</strong></td>
<td>Encourage businesses to minimize water pollution, solid waste, energy consumption, water usage, landscaping chemicals, and overly bright nighttime lighting. Advertise these measures in a way that attracts the large, environmentally sympathetic tourist market.</td>
</tr>
<tr>
<td><strong>Planning</strong></td>
<td>Recognize and respect immediate economic needs without sacrificing long-term character and the geotourism potential of the destination. Where tourism attracts in-migration of workers, develop new communities that themselves constitute a destination enhancement. Strive to diversify the economy and limit population influx to sustainable levels. Adopt public strategies for mitigating practices that are incompatible with geotourism and damaging to the image of the destination.</td>
</tr>
<tr>
<td><strong>Interactive Interpretation</strong></td>
<td>Engage both visitors and hosts in learning about the place. Encourage residents to show off the natural and cultural heritage of their communities, so that tourists gain a richer experience and residents develop pride in their locales.</td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td>Establish an evaluation process to be conducted on a regular basis by an independent panel representing all stakeholder interests, and publicize evaluation results.</td>
</tr>
</tbody>
</table>
APPENDIX B:
GEOTOURISM MAPGUIDE PROJECTS

Completed Projects:
• Crown of the Continent (2009)
• Greater Yellowstone (2009)
• Central Cascades (2009)
• Redwood Coast (2010)
• Sierra Nevada (2010)
• Four Corners (2010)
• Arizona Sonora Desert (2007)
• Northeast Kingdom, Vermont (2006)
• Lakes to Locks, NY VT Quebec (2010)
• Guatemala (2009)
• Vilcanota Valley, Peru (2009)
• Baja California, Mexico (2009)
• Montreal (2009)

Currently Underway:
• Western Balkans
• Southern Ethiopia
• Eastern Tennessee

Future Projects:
• Douro Valley, Portugal
• Shenandoah Valley, West Virginia
• Eastern Newfoundland
• Hawaii, Big Island
• Greece, Crete Athens
APPENDIX C:
CROWN OF THE CONTINENT GSC

The Geotourism Council involves stakeholders representing more than 50 organizations, agencies or businesses who have contributed time, expertise and/or financial support. A broader set of stakeholders provided nominations, comments and ideas during the development of the MapGuide. The Council has operated as an open-invitation advisory committee of interested individuals. Organizations that have actively participated in the Crown of the Continent Geotourism Council include:

2) Alberta Southwest Regional Alliance - http://www.albertasouthwest.com/
3) Alpine Artisans Inc. www.alpineartisans.org
4) Blackfeet Nation - http://www.blackfeetnation.com/
6) Bureau of Land Management, United State Department of Interior - http://www.blm.gov/
9) Chinook Institute for Community Stewardship - http://www.chinookinstitute.org/
10) College of the Rockies, Tourism Knowledge Cluster - http://gateway.cotr.bc.ca/TourismCluster/
14) Fernie Chamber of Commerce - http://www.ferniechamber.com/
16) Frank Slide Interpretive Centre - http://www.frankslide.com/
18) Glacier National Park - http://www.nps.gov/glac
24) The Sustainability Fund of Kalispell, Montana
26) Montana Department of Commerce and Travel Montana – http://www.visitmt.com/
29) National Geographic Society, Center for Sustainable Destinations - http://www.nationalgeographic.com/travel/sustainable/
31) National Park Service, United States Department of Interior - http://www.nps.gov/
33) Rocky Mountain Grizzly Centre - http://grizzlycentre.com/
35) Seeley Lake Chamber of Commerce - http://www.seeeylakechamber.com/
36) Sonoran Institute - http://sonoran.org/
38) Swan Ecosystem Center - http://www.swanecosystemcenter.com/
39) U.S. Forest Service, United State Department of Agriculture - http://www.fs.fed.us/
42) University of Calgary, Program of Environmental Design - http://www.ucalgary.ca/evd
44) University of Montana, Institute for Tourism and Recreation Research - http://www.itrr.umt.edu/
49) Wildsight - http://www.wildsight.ca/
50) Yellowstone-to-Yukon Conservation Initiative - http://www.y2y.net/
APPENDIX D:
GEOTOURISM STEWARSHIP COUNCIL BACKGROUND

[Source: National Geographic Center for Sustainable Destinations]

About Geotourism Stewardship Councils
A Geotourism Stewardship Council is a nongovernmental or public/private entity. A Council may be national, regional, or local. It may go by any name, or coalesce around an existing group, but has the characteristics described below.

The Council’s task is to oversee and advise on the four elements of a geotourism strategy:
• identifying,
• sustaining,
• developing, and
• marketing the geotourism assets of a place.

Council advice and activity should be in keeping with the interests of the communities, with good conservation and preservation practices, and with responsible economic development. The Council encourages appropriate tourism in appropriate places, and discourages inappropriate tourism in unsuitable places. The Council should subscribe to the principles embodied in the Geotourism Charter and in the geotourism definition:
Tourism that sustains or enhances the geographical character of a place — its environment, heritage, aesthetics, culture, and the well-being of its residents.

Council activities are intended not only to promote geotourism assets to tourists but also to be a catalyst for local communities—to help them discover their own distinctive tourism assets and provide economic benefits and an incentive for protecting them. The Council should monitor sustainability and ensure that tourist capacity is appropriately managed, while still encouraging maximum benefit from visitor (local spending, etc.) Catalyst activities might include:
• Hosting an annual festival to build local pride and awareness, while garnishing tourism spending in the destination,
• Creating a Geotourism MapGuide with National Geographic or a local university, and extensive local participation,
• Reviewing and providing recommendations on tourism developments and proposals,
• Serving as ongoing gatekeeper and clearinghouse for community-generated geotourism information that is then issued electronically, via the Internet and handheld touring devices.

Council members should represent the following interests:
• historic preservation
• natural conservation
• communities
• indigenous peoples and other cultural minorities
• traditional arts (craft, music, dance, theater, storytelling, reenactments,
etc.) • destination management and marketing organizations • farm/restaurant programs, agritourism, Slow Food • beautification programs (signage, architecture, landscape concerns) • other stakeholder groups emblematic of the locale • government (tourism, planning, and environment, for example) • private businesses compatible with geotourism

Local collaborators and advisors potentially include: • Geotourism innovators—guides, innkeepers, restaurateurs, tour operators, etc. • Local arts, craft co-ops, music groups, or other heritage groups • Agricultural cooperatives, historic preservation groups, conservation organizations (including ecotourism leaders) • Community leaders or individuals with deep knowledge of the area’s heritage, especially older individuals • Church groups, school associations, universities, volunteer/charity organizations • Local geographical or historical author who covers the region • Historians, naturalists, librarians • Local minority or heritage groups and experts • Specialists in locally based food and drink

Procedures: There is no formal, prescribed method for choosing council members and sustainable funding of council activities. These vary considerably from one place to another, and each place must tailor an approach appropriate to local circumstances. Generally, to ensure continuity, government should not control the Council, although it should have a significant role.

Operationally, the Council can work in a continual cycle:
  Plan—Planning, including identifying stewardship aspects and establishing goals
  Do—Implementing, including training and information dissemination
  Check—Monitoring and progress reviews
  Act—Taking corrective action as indicated
APPENDIX E:
NGS MEASURES OF SUCCESS

National Geographic Maps Division–
Geotourism Program Summary 2010

PROGRAMS IN PLACES: DESTINATION STEWARDSHIP

**Thirteen** self-funded Geotourism MapGuide projects have been completed or are underway in six countries; four more are pending. Typically, each requires convening a local Geotourism Stewardship Council and eliciting grassroots participation with extensive local media coverage over the course of a year.

**Appalachia (2005)**
- 1.3 million MapGuides were printed; 900,000 ran in Traveler’s April, 2005 issue, and another 400,000 were distributed to targeted consumers through the 13 State Tourism offices distribution network.
- 200 Press announcements (newspapers, TV, radio, newsletters and magazines)

**North East Kingdom Vermont – (2006)**
- 150,000 maps distributed.
- 45,000 + hits on the NEKTTA Website.
- 400,000 indirect contacts through newspaper, television, radio, and magazines.
- $150,000 in additional funding from USDA Rural Enterprise Development Grants

**Baja California, México – (2007)**
- 200,000 mapguides printed
- NG Traveler magazine insert
- 354 sites nominated
- 1,000 local participants in the nomination process either by attending one of the 20 plus geotourism forums conducted during the project or by sending in nomination forms or nominating on the project website.
- Radio and television coverage (Dion, TV Azteca 2006) and interviews in Baja California and at National level in Mexico.
- 6 newspaper articles on file

**Sonora Desert Region (Arizona, USA and Sonora, Mexico) – (2007)**
• 300,000 maps printed / 200,000 maps inserted in the Latin America edition of NGM
• 100,000 plus hits to Arizona website since launch.
• 17 newspaper articles on file for Mexico / 15 on file for Arizona
• Extensive local radio and TV and reports
• 18 Geotourism forums in Arizona with 350 attendees / 25 forums in Sonora, Mexico with 500 attendees
• 850 site nominations received
• Project has won two awards.
• 10,000 monthly visitors to the geotourism mapguide on the Arizona Office of Tourism website. The Geotourism web map is currently being redesigned and improved.
• 62,000 increase in visitors to Sonora, vi , from approximately 228,486 visitors in 2006 to 290,052 visitors in 2007, the year the MapGuide was published and distributed


• 250,000 mapguides printed
• 30 public forums held in the tri-state region
• 1,200 site nominations.
• 40 print media hits reached over 1.4 million readers, including the London Daily Telegraph audience. NBC Today Show and MSNBC reported the project in national television broadcasts in the US.
  April 8, 2009 to Jan 24, 2010 – 21,648 unique visits – 1352 subscribers = 6% conversion
• 148 local content contributors providing 103 active content for website entries
• 63 newspaper, web, radio and TV reports on file
• $200,000 in additional funding post completing map and website

**Crown of the Continent, Montana, Alberta, B.C. (2008)**

• 200,000 mapguides printed
• 65 community workshops held
• 850 site nominations received
  Nov 26 2008 to Jan 24, 2010 – 107,304 unique visitors – 21,835 subscribers (people signing up with the site) = 20% conversion (anonymous visitor to subscriber)
• 192 local content contributors providing 480 active content for website entries
• 90 newspaper, website, radio, magazine and TV reports on file
• The creating GSC was named recipient of the Montana Tourism Partnership of the Year award in March 2009.

Guatemala: (2009)
• 15,000 mapguides printed
• 2,500 people attended 47 community forums
• 1,100 unique site nominations received
• 1,500 people attended the project launch event
• 75,000 coffee growers in villages and hamlets throughout the country are represented in our partnership with the Guatemalan Coffee Association (ANACAFE)
• 28 TV, radio, and print articles on file. Estimated outreach over 4 million
• IADB-MIF invitation for funding $300,000 of post mapguide program activities; including $100,000 for NG designed website

Central Cascades of Washington and Oregon (2009)
• 50,000 mapguides printed
• MapGuide to be inserted in May western US edition of NG Traveler
• 1,400 site nominations
• 40 geo-forums held in the region
• 37 newspaper, TV, radio and web media reports on file

Redwood Coast California (2010)
• First website only project
• Strategic partnership with Monterey Bay Sanctuary Foundation providing $70,000 in funding for NG to create the website and the Federal Geotourism MOU partners a $70,000 match to implement the project locally
• Over 850 unique site nominations received between January and May 2009.
• Over 3,000 people engaged in public meetings in the region
• Media coverage in every major newspaper from Crescent City to Fort Bragg
• www.visitredwoodcoast.org - Soft launched January 21st 2010 days ago
• 372 local content contributors providing 223 active content for website entries
• Official roll out event on March 11th in Scotia, Cal. Mike Fay featured speaker
Sierra Nevada California (2010)

- 3 paper mapguides and a four-part mapguide initiative
- Project launch in Yosemite byway region in August 2009
- 9 local newspapers and 3 TV stations covered launch events
- 23 geotourism forums held in the region
- 1,400 site nominations received
- 722 local content contributors providing 823 active content website entries
  Sierra Nevada is the first site a complete online nominations process was followed using GeoConsensus. On the other sites the nominations process was offline and then transferred online. It appears the online process brings in significantly more nominators and active content entries.

City of Montreal, Canada (2009)

- 100,000 mapguides printed
- 15 community forums
- 350 site nominations received

Vilcanota Valley of Peru (2009)

- 30,000 mapguides printed
- 51 geo-forums held covering virtually all the municipalities in the valley
- 2,300 site nominations received
- 4 newspaper articles on file.
- Extensive regional radio coverage in both Spanish and Quechua.
- 10,000 copies of “Geotourism for Your Community” have been given out to schools and libraries in the region; approximately 33 schools have 3,000 copies of NGS “Kids” (in Spanish).
- Strategic partnership with the World bank as primary project funder

Douro Valley of Portugal (2010)

- December 14th 2009 Charter signing attracted regional and national print and TV coverage
- Contract signed between NGS and CCDR-N on December 14th to develop a sustainable geotourism plan for the Douro Valley of Portugal. Project in partnership with George Washington University, WHA-UNF, and SOLIMAR International.
Programs underway in 2010 include

- Four Corners / Indian Country (USA)
- Guatemala Geotourism Website
- Lakes to Locks Passage (Canada / USA)
- New Foundland (Canada)
## APPENDIX F:
Western States Geotourism Council Members

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>CONTACT</th>
<th>AFFILIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASCADES</td>
<td>Kristin Dahl</td>
<td>Travel Oregon</td>
</tr>
<tr>
<td></td>
<td>Jed Mitchell</td>
<td>Sustainable Northwest, Sr. Director</td>
</tr>
<tr>
<td></td>
<td>Michelle Campbell</td>
<td>Washington State Tourism</td>
</tr>
<tr>
<td></td>
<td>Carol Zahorsky</td>
<td>WA State Tourism</td>
</tr>
<tr>
<td></td>
<td>Bonnie Lippitt</td>
<td>US Forest Service</td>
</tr>
<tr>
<td></td>
<td>Laurel MacMillan</td>
<td>Rural Development Initiative</td>
</tr>
<tr>
<td></td>
<td>Brian Mullis</td>
<td>Sustainable Travel International</td>
</tr>
<tr>
<td></td>
<td>Chris Dadson</td>
<td>Kootenay Rockies Tourism</td>
</tr>
<tr>
<td>COTC</td>
<td>Dylan Boyle</td>
<td>COTC Geotourism Project Coordinator</td>
</tr>
<tr>
<td></td>
<td>Steve Thompson</td>
<td>NPCA (previous coordinator)</td>
</tr>
<tr>
<td></td>
<td>Beth Russell Towe</td>
<td>Trail of Great Bear</td>
</tr>
<tr>
<td></td>
<td>Shameer Suleman</td>
<td>Waterton Chamber of Commerce</td>
</tr>
<tr>
<td></td>
<td>Bev Thorton</td>
<td>Alberta Southwest</td>
</tr>
<tr>
<td></td>
<td>Victor Bjornberg</td>
<td>Montana Office of Tourism</td>
</tr>
<tr>
<td></td>
<td>Racene Friede</td>
<td>Glacier Country Regional Tourism</td>
</tr>
<tr>
<td></td>
<td>Rhonda Fitzgerald</td>
<td>Gardenwall Inn</td>
</tr>
<tr>
<td></td>
<td>Chris Dadson</td>
<td>Kootenay Rockies British Columbia</td>
</tr>
<tr>
<td></td>
<td>Carrie Shaffer</td>
<td>Photographer and BC community rep</td>
</tr>
<tr>
<td>GREATER</td>
<td>Tim O'Donoghue</td>
<td>Jackson WY Chamber of Commerce, director</td>
</tr>
<tr>
<td>YELLOWSTONE</td>
<td>Jan Brown</td>
<td>Post-project fund raising and support</td>
</tr>
<tr>
<td></td>
<td>Brian Sybert</td>
<td>Project implementation and management</td>
</tr>
<tr>
<td></td>
<td>Reid Rogers</td>
<td>New ideas - Geotourism Visitors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Center in Driggs</td>
</tr>
<tr>
<td>CA REDWOOD</td>
<td>Richard Strom</td>
<td>Visit Mendocino County, Director of</td>
</tr>
<tr>
<td>COAST</td>
<td></td>
<td>Tourism Development</td>
</tr>
<tr>
<td></td>
<td>Frank Borodic</td>
<td>North Coast Tourism Council</td>
</tr>
<tr>
<td>SIERRA NEVADA</td>
<td>Nicole Dejonghe</td>
<td>Sierra Business Council</td>
</tr>
<tr>
<td></td>
<td>Steve Frisch</td>
<td>Sierra Business Council</td>
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<tr>
<td></td>
<td>Rick Hanks</td>
<td>California BLM</td>
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<tr>
<td></td>
<td>Bob Kingman</td>
<td>Sierra Nevada Conservancy</td>
</tr>
<tr>
<td>FOUR CORNERS</td>
<td>Susan Thomas</td>
<td>Four Corners Project Manager</td>
</tr>
<tr>
<td></td>
<td>Lynn Dyer</td>
<td>Mesa Verde County Tourism</td>
</tr>
<tr>
<td></td>
<td>Angela West</td>
<td>New Mexico BLM</td>
</tr>
</tbody>
</table>

*Bold denotes main contact/project manager*
APPENDIX G:
Round 1 Interview Guide

The purpose of interviews is to establish:
1. GSC members’ priority interests in evaluation
2. Determine what constitutes ‘success’ for GSC members

- How did you hear about this geotourism project?
- Why did you decide to get involved?
- What do you think about tourism in this region in general?
- How do you hope geotourism will impact this region?
- What do you hope to gain from your involvement in the process?
- What end result would you like this project to have?
  - In your opinion, what would constitute success?
  - What would you consider to be possible unfavorable outcomes or side effects of this process?
- What do you think the stewardship council should do after the mapguide is complete?
  - What should its role be?
  - Do you see yourself staying involved?
- How is the implementation process going so far? How have you been involved?
- Are you happy with National Geographic's role in project implementation? Is there anything you'd like to see done differently?
- What indicators of success are most important to measure long-term success of this project? In your opinion, what would be important criteria for measuring the success of this project?

Do you have any additional comments you would like to add?
APPENDIX H:
ROUND 2 METRICS MENU

The following list of success indicators and corresponding metrics is the product of interview/survey responses from COTC, Yellowstone, Central Cascades, and Sierra Nevada Geotourism stewardship councils.

Data Source: Website content providers (businesses, organizations)

<table>
<thead>
<tr>
<th>Success Indicator</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business’ perception of project success</td>
<td>Rate impact on:</td>
</tr>
<tr>
<td></td>
<td>● Tourist activity/visitation</td>
</tr>
<tr>
<td></td>
<td>● Regional communication and networking</td>
</tr>
<tr>
<td></td>
<td>● Financial impact</td>
</tr>
<tr>
<td></td>
<td>● Visibility/marketing</td>
</tr>
<tr>
<td></td>
<td>● Tourist participation in voluntourism/travel philanthropy/conservation give-back</td>
</tr>
<tr>
<td></td>
<td>What is valued most about geotourism project?</td>
</tr>
<tr>
<td>Geotourism principles reflected by participating businesses/organizations</td>
<td>● Reason for nominating site</td>
</tr>
<tr>
<td></td>
<td>● Existence of voluntourism/travel philanthropy/conservation give-back program</td>
</tr>
<tr>
<td></td>
<td>● Advances in environmental sustainable business practices</td>
</tr>
<tr>
<td></td>
<td>(mini environmental impact self-assessment)</td>
</tr>
<tr>
<td>Geotourism knowledge</td>
<td>● Percent of visitors who exhibit knowledge of geotourism project</td>
</tr>
<tr>
<td></td>
<td>(eg. reference mapguide as reason for visit)</td>
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<tr>
<td></td>
<td>● Community participation in geotourism forums</td>
</tr>
</tbody>
</table>

Data Source: Visitors

<table>
<thead>
<tr>
<th>Visitor satisfaction</th>
<th>Rate satisfaction with:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>● Cultural authenticity</td>
</tr>
<tr>
<td></td>
<td>● Environmental quality</td>
</tr>
<tr>
<td>Success Indicator</td>
<td>Metric</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Strength of GSC</td>
<td>Number of members, continuity of involvement</td>
</tr>
<tr>
<td>Inter-council collaboration and communication</td>
<td>Quality, frequency, diversity of GSC</td>
</tr>
<tr>
<td></td>
<td>communication</td>
</tr>
<tr>
<td>Activity</td>
<td>Number of geotourism activities post mapguide release</td>
</tr>
<tr>
<td>Ongoing funding initiatives</td>
<td>Number of grant applications (?)</td>
</tr>
<tr>
<td>GSC perception of project success</td>
<td>Rate impact on:</td>
</tr>
<tr>
<td></td>
<td>• Regional collaboration and communication</td>
</tr>
<tr>
<td></td>
<td>• Community engagement</td>
</tr>
<tr>
<td></td>
<td>• Visibility, branding, awareness of</td>
</tr>
<tr>
<td></td>
<td>destination</td>
</tr>
<tr>
<td></td>
<td>• Tourist activity/visitation</td>
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<tr>
<td></td>
<td>• Environmental stewardship</td>
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<tr>
<td></td>
<td>• Cultural awareness</td>
</tr>
<tr>
<td></td>
<td>• Economic impact</td>
</tr>
<tr>
<td>National Geographic—GSC collaboration</td>
<td>• Challenges and successes experienced in</td>
</tr>
<tr>
<td></td>
<td>project implementation</td>
</tr>
<tr>
<td></td>
<td>• What part of implementation cycle is in</td>
</tr>
<tr>
<td></td>
<td>need of improvement?</td>
</tr>
</tbody>
</table>
### Dashboard Metrics

| Mapguide/Webmap activity | • Number, percentage, rate of mapguides distributed  
| • Number of unique content providers, active content providers, subscribers, visitors  
| • Monthly content view and content views trend for each active site and event |
|--------------------------|--------------------------------------------------|
| Program sustainability   | • Amount of money made  
| • Total project funding, diversity of funding sources  
| • Existence of a strategic and annual plan |
| GSC activity             | • Amount of money spent on promotions  
| • Number of articles written involving geotourism project area  
| • Number of trade and travel conferences attended |
APPENDIX I:
ROUND 2 GSC QUESTIONNAIRE

1. Which geotourism project are you affiliated with?

2. What kind of organization are you affiliated with? (eg. state tourism bureau, destination marketing organization, community development nonprofit, etc.)

3. What were the initial goals of your geotourism project? Do you think these goals are still relevant when measuring future success?

4. To what degree do you believe the geotourism initiative has made an impact in the following areas:

   * Regional collaboration and communication
   * Community engagement
   * Visibility, Branding, Awareness of destination
   * Tourist activity/visitation
   * Environmental stewardship
   * Cultural awareness
   * Economic impact

   Businesses listed on the MapGuide will be surveyed to gauge success of this project. The purpose here is to determine most important content and approach for data collection in the future.

5. Please indicate the importance of each success indicator for MapGuide businesses: Rate on five-point scale (Not Important—Highly Important)

   * Number of businesses participating
   * Continuity of involvement
   * Number of visitors, length of stay, off-season occupancy rates
   * Existence of travel philanthropy, voluntourism, or conservation give-back programs
   * Increase in regional communication and networking
   * Environmentally sustainable business practices
   * Return on Investment

6. Please indicate whether or not the following questions directed toward MapGuide businesses should be included on the final survey: (Y/N)

   * Has your business received an increase in visitation since MapGuide release?
   * Have you participated in a geotourism forum?
   * Do you have a travel philanthropy, voluntourism or give-back program?
   * Have you made any advances is environmental sustainability since your project was initiated?
Geotourism website subscribers and contributors are two valuable sources for evaluation. GeoConsensus can be used to survey web users and question(s) can be added to site nomination as a source of information.

1. **How important do you consider the following indicators to be in future evaluation? (Not important, Very important)**
   - Website users understand values and principles of geotourism (add question into site nomination process)
   - Contributor has participated in geotourism forum (indicates community engagement)
   - Subscriber has recently visited region or Mapguide site (indicates returning visitors)
   - Visitor satisfaction with visit to geotourism region

These questions will be used to provide National Geographic's Geotourism Program feedback on the project implementation process. Opinions will be summarized and delivered to NGS for consideration. Your response will remain anonymous.

1. **In your opinion, where is National Geographic's geotourism project cycle is in need of improvement? Is there anything you would like to see done differently?**

2. **Please comment on challenges and/or successes experienced during the implementation of this project.**
ROUND 2 SURVEY RESULTS
10/15/2010—11/21-2010

14 survey responses from:
Central Cascades (4); CTOC (4);
Greater Yellowstone (5); and Redwood Coast (1)

What were the initial goals of your geotourism project? Do you think these goals are still relevant when measuring future success?

- To partner with National Geographic in highlighting & promoting unique, distinctive areas of Montana and our neighbor states & provinces. 2. Partner with other tourism and non-tourism organizations in the promotion, resource protection and community development in the geotourism project regions. 3. Leverage our Montana state, regional and community promotion and development funds with those of our neighbor states & provinces. I believe these are still relevant to assess the success of both or our geotourism projects with.

- Help Engage rural communities and get them involved in helping to determine their futures. Encourage tourism to rural communities in the Region and generate additional revenues. I think they are still relevant

- To print and distribute the Mapguide and establish the website: www.yellowstonegeotourism.org

- I came in towards the end of the project but have involved ever since.

- Joint marketing for the north coast tourism council geographic area.

- wasn't involved in setting the goals

- Initially to establish our Greater Yellowstone Region’s listing of qualified sustainable assets: natural, cultural and organizational ... and have them represented on a map and the web for both informative and promotional purposes. Ultimately our goal is to get a much better comprehensive understanding of what we have to offer, foster a conservation and sustainability mindset within our communities and attract people seeking quality, meaningful and enlightening vacation experiences. I do think the goals are still very relevant but the metrics somewhat challenging to agree upon. If asking this question specific to Bridger Bowl - we have promoted ourselves liberally using the geotourism designation (as the only qualifying sustainable ski area in our region) as well as for our annual Bridger Raptor Festival. Our initial goal for Bridger Bowl was to differentiate ourselves from
the more typical real estate driven destination resort while still promoting our quality community skiing experience. The Bridger Raptor Festival is a signature event representing our awareness and interest in our local, natural environment. In the near future we will survey our visitors interest and value in these attributes.

- Sustainability, awareness, and tourism alliances with adjoining states. Project is still relevant.
- Increase support to sustainable tourism opportunities in the Central Cascades, increase number and quality of sustainable tourism offerings.
- Creating awareness for geotourism and its principals.
- To attract more US geotourists to our region. To assist region’s communities retain their sense of place. Goals are considered still relevant.

Please comment on challenges and/or successes experienced during the implementation of this project.

- Montana’s experience has been a positive one. The goals listed in response to the first question have been realized for the most part. The project fits very well with the direction of tourism and recreation promotion and development in Montana so it dovetails nicely with where the state, in particular, is focusing its resources.

- I think our core team worked very well together and really represented a range of skills and viewpoints. I think the fact that we kept our stewardship committee focused on getting through the mapguide process was key—they knew they only had to commit for a year, not long term. I think we worked hard to get appropriate themes and to get good photos.

- Funding is essential and is our largest challenge. Funding will enable promotions and marketing, and the establishment of a dedicated position(s) for managing the geotourism project.

- Project sustainability and funding are a constant challenge.

- See number 1 - We are still struggling with how to handle phase 2 and beyond.
• challenges = not enough time to make sure everything is populated on the site

• I feel that it was great to get the buy in that we have achieved surrounding the "geotourism" concept. The ongoing challenge is not lose support by becoming too narrowly focused on the targeted "geotourist". Again, our focus should be fortifying our natural resources and promoting the geotourism message and values in a very efficient and pragmatic way. It was very rewarding for our ski area to be

• Poorly organized conference calls, website flounders with no content management organization from NGS. Successes were the map publication.

• Collaboration fell apart...

• Continuity of funding.

In your opinion, where is National Geographic's geotourism project cycle is in need of improvement? Is there anything you would like to see done differently?

• Models for how to sustain the projects. Right now, great assistance getting started and up to the first fulfillment product phase, but everyone's on their own after that and keeping the project going in a sustainable manner is a challenge....but this is new territory for everyone.

• I don't think their idea of long-term Stewardship Councils works or is sustainable. I also think that the printed guide is not the end of the project and that most applications need to be digital in the future. Finally, it would be good to see NGS as a partner, not as a paid contractor which given the amount of funding they get is really the case.

• Inter-project collaboration on issues such as funding, promotions (individual and cooperative), planning, education and training

• The ability to sustain the project ESPECIALLY if the project was successful and generated enthusiasm from people that want the project to continue and grow.

• More awareness and online presence

• Phase 1 was fine but there is no provision for phase 2 - the ongoing
administration and funding of the site.

- More coordination to keep communities/members/people involved

- I think it is a mistake to create, maintain and update an independent Geotourism project website. All the assets from this effort should be integrated into the individual partners collateral/websites. Creating an independent and supported site is unnecessarily duplicitous and expensive ... but most importantly, the site is then left competing with its own partner’s websites.

- NGS has no clear direction how they want the program to succeed. Communication is weak & no strong leadership from NGS.

- More information on how other regions did it, more feedback about process, impacts, more transparency in general.

**Potential Metrics**

- Need to get at why they are visiting the region...more success if to enjoy geotouristic qualities of the region.
- Overall occupancy year round
- Important factor in my mind is if the visitor is there for the qualities the Geotourism project promotes - supporting local producers/businesses, appreciating and supporting what makes the area unique.
- Total funding
- Diversity of funding source
- Existence of a strategic and annual plan
- Various website analytics, including but not limited to # of unique visitors, average pageviews per visitor and/or average visit time, # of users/field experts, # of subscribers, # of active content entries
- Number and rate of Mapguides distributed
- Amount of money spent on promotions
- Number of familiarization tours and travel writers visiting geotourism project area, # of articles written, total distribution of all articles, total $ value of articles written (if the space was for advertisements instead)
- Number of trade and travel conferences and shows attended, the total # of people in attendance from all shows, and total # of leads generated
- I worry that if we focus on ROI to quickly, we will be making false conclusions on premature assumptions. That being said, if we don't protect our assets, we will not be financially successful in promoting our natural resources in years to come.
## APPENDIX J: GLOBAL SUSTAINABLE TOURISM CRITERIA

<table>
<thead>
<tr>
<th>A. Sustainable Management</th>
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<tbody>
<tr>
<td><strong>A. Demonstrate Effective Sustainable Management</strong></td>
<td></td>
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<tr>
<td>A1. The company has implemented a long-term sustainability management system that is suitable to its reality and scale, and that considers environmental, sociocultural, quality, health, and safety issues.</td>
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<tr>
<td>A2. The company is in compliance with all relevant international or local legislation and regulations (including, among others, health, safety, labor, and environmental aspects).</td>
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<tr>
<td>A3. All personnel receive periodic training regarding their role in the management of environmental, sociocultural, health, and safety practices.</td>
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<td>A4. Customer satisfaction is measured and corrective action taken where appropriate.</td>
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<tr>
<td>A5. Promotional materials are accurate and complete and do not promise more than can be delivered by the business.</td>
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<tr>
<td>A6. Design and construction of buildings and infrastructure</td>
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<tr>
<td>A6.1 Comply with local zoning and protected or heritage area requirements</td>
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<tr>
<td>A6.2 Respect the natural or cultural heritage surroundings in siting, design, impact assessment, and land rights and acquisition</td>
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<tr>
<td>A6.3 Use locally appropriate principles of sustainable construction</td>
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<tr>
<td>A6.4 Provide access for persons with special needs</td>
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<tr>
<td>A7. Information about and interpretation of the natural surroundings, local culture, and cultural heritage is provided to customers, as well as explaining appropriate behavior while visiting natural areas, living cultures, and cultural heritage sites</td>
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<tr>
<td><strong>B. Social/Economic: Maximize benefits to cultural heritage and minimize negative impacts.</strong></td>
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<tr>
<td>B1. Actively supports initiatives for social and infrastructure community development including, among others, education, health, and sanitation.</td>
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<tr>
<td>B2. Local residents are employed, including in management positions. Training is offered as necessary.</td>
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<tr>
<td>B3.</td>
<td>Local and fair-trade services and goods are purchased by the business, where available.</td>
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<tr>
<td>B4.</td>
<td>The company offers the means for local small entrepreneurs to develop and sell sustainable products that are based on the area’s nature, history, and culture (including food and drink, crafts, performance arts, agricultural products, etc.).</td>
</tr>
<tr>
<td>B5.</td>
<td>A code of conduct for activities in indigenous and local communities has been developed, with the consent of and in collaboration with the community.</td>
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<tr>
<td>B6.</td>
<td>The company has implemented a policy against commercial exploitation, particularly of children and adolescents, including sexual exploitation.</td>
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<tr>
<td>B7.</td>
<td>The company is equitable in hiring women and local minorities, including in management positions, while restraining child labor.</td>
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<tr>
<td>B8.</td>
<td>The international or national legal protection of employees is respected, and employees are paid a living wage.</td>
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<tr>
<td>B9.</td>
<td>The activities of the company do not jeopardize the provision of basic services, such as water, energy, or sanitation, to neighboring communities.</td>
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<tr>
<td>C.</td>
<td>Maximize benefits to cultural heritage and minimize negative impacts.</td>
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<tr>
<td>C1.</td>
<td>The company follows established guidelines or a code of behavior for visits to culturally or historically sensitive sites, in order to minimize visitor impact and maximize enjoyment.</td>
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<tr>
<td>C2.</td>
<td>Historical and archeological artifacts are not sold, traded, or displayed, except as permitted by law.</td>
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<tr>
<td>C3.</td>
<td>The business contributes to the protection of local historical, archeological, culturally, and spiritually important properties and sites, and does not impede access to them by local residents.</td>
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<tr>
<td>C4.</td>
<td>The business uses elements of local art, architecture, or cultural heritage in its operations, design, decoration, food, or shops; while respecting the intellectual property rights of local communities.</td>
</tr>
<tr>
<td>D. Objective: Maximize benefits to the environment and minimize negative impacts</td>
<td>D1. Conserving Resources</td>
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<td></td>
<td>D1.2 The purchase of disposable and consumable goods is measured, and the business actively seeks ways to reduce their use.</td>
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<td></td>
<td>D1.2 Energy consumption should be measured, sources indicated, and measures to decrease overall consumption should be adopted, while encouraging the use of renewable energy.</td>
</tr>
<tr>
<td></td>
<td>D1.4 Water consumption should be measured, sources indicated, and measures to decrease overall consumption should be adopted.</td>
</tr>
<tr>
<td>D2. Reducing Pollution</td>
<td>D2.1 Greenhouse gas emissions from all sources controlled by the business are measured, and procedures are implemented to reduce and offset them as a way to achieve climate neutrality.</td>
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<td>D2.2 Wastewater, including gray water, is treated effectively and reused where possible.</td>
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<td>D2.3 A solid waste management plan is implemented, with quantitative goals to minimize waste that is not reused or recycled.</td>
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<td>D2.4 The use of harmful substances, including pesticides, paints, swimming pool disinfectants, and cleaning materials, is minimized; substituted, when available, by innocuous products; and all chemical use is properly managed.</td>
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<tr>
<td></td>
<td>D2.5 The business implements practices to reduce pollution from noise, light, runoff, erosion, ozone-depleting compounds, and air and soil contaminants.</td>
</tr>
<tr>
<td>D3. Conserving biodiversity, ecosystems and landscape</td>
<td>D3.1 Wildlife species are only harvested from the wild, consumed, displayed, sold, or internationally traded, as part of a regulated activity that ensures that their utilization is sustainable.</td>
</tr>
<tr>
<td>D3.2</td>
<td>No captive wildlife is held, except for properly regulated activities, and living specimens of protected wildlife species are only kept by those authorized and suitably equipped to house and care for them.</td>
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<tr>
<td>D3.3</td>
<td>The business uses native species for landscaping and restoration, and takes measures to avoid the introduction of invasive alien species.</td>
</tr>
<tr>
<td>D3.4</td>
<td>The business contributes to the support of biodiversity conservation, including supporting natural protected areas and areas of high biodiversity value.</td>
</tr>
<tr>
<td>D3.5</td>
<td>Interactions with wildlife must not produce adverse effects on the viability of populations in the wild; and any disturbance of natural ecosystems is minimized, rehabilitated, and there is a compensatory contribution to conservation management.</td>
</tr>
</tbody>
</table>
APPENDIX K:
CROWN OF THE CONTINENT GSC ASSESSMENT
Open-ended Responses

4. Please comment on the successes and challenges communicating within the geocouncil. How would you rate the quality, frequency, and diversity of communication?

Respondent: 98.125.83.160
Excellent vision in terms of building on past successes with new projects/plans/proposals. The geocouncil has substantial inertia behind it, and is taking on a life of its own beyond what initial goals anticipated. That forward movement requires quality coordination and communication, which has been both effective and strategic. The flow of information/ideas has been fantastic.

Respondent: 24.66.0.245
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Respondent: 142.229.109.171
Time and distance present barriers and difficulties; electronic communications help a lot, but face-to-face is most powerful in engaging partners and generating energy and momentum.

Respondent: 174.44.12.75
Because we cover a large, diverse area, it is difficult to keep everyone on board and up to speed. Having Dylan at the helm has helped greatly just to keep the communication going.

Respondent: 72.160.52.246
A work in progress!

Respondent: 161.7.84.236
At both the regional and executive committee level, the communication among the Crown of the Continent partners & participants has been good. In addition to the initial 65+ community meetings that kicked off the project, we've held two to three regional meetings per year in the first two years of the project and many conference calls. We've been fortunate to have good project coordinators who keep the communication going. Now, the executive committee is having monthly conference calls with the coordinator for an update on projects and discussing the priority actions for the near term and long term.

5. How would you rate the success of your project in creating new partnerships?

Respondent: 98.125.83.160
After tremendous initial success creating public and private partnerships, the curve has naturally flattened somewhat. However, new opportunities have been/are being cultivated, to considerable success.

Respondent: 24.66.0.245  
Very high.

Respondent: 142.229.109.171  
Excellent

Respondent: 174.44.12.75  
I am not sure. Hopefully, we will continue to rekindle the old ones and reconnect as well as generate new partners.

Respondent: 72.160.52.246  
Very good at bringing government entities together.

Respondent: 161.7.84.236  
The project has done well in this area across the region. From community groups coming together to the Crown partnership being invited to discuss regional issues with organizations also at work in the Crown Region. It’s opened up more cross border discussions and invitations to participate in each others activities - being invited to a Sustainable Tourism Initiative in Alberta, participating in a Crown of the Continent Roundtable Forum involving land management and conservation organizations involved in the region.

6. Please list and describe the number and degree of success of geotourism related activities you have undertaken since map release.

Respondent: 98.125.83.160  
Business development, natural/cultural stewardship projects, public education, media outreach, continued branding, international partnerships/cooperation, public presentations/workshops/meetings, state/provincial involvement, tourism department coordination, scores of public/private partners, research into effectiveness of geotourism documents/map-guides

Respondent: 24.66.0.245  
Marketing Program Website Content

Respondent: 142.229.109.171  
Conferences: MT Gov Conference and Alberta Sustainable tourism conference. Regional networking events. Workshops (See below for comments on success)

Respondent: 174.44.12.75
For the WCVB, we incorporate geotourism in all our publications, collateral, ads, our website. We think it is important to keep moving forward.

Respondent: 72.160.52.246
Very good statewide adoption of Geotourism principles, and implementation of them into statewide marketing

Respondent: 161.7.84.236
The MT, AB & BC tourism promotion programs funded a Crown of the Continent Awareness Raising Campaign in late summer/early Fall 2010.....a success for partners - saw enough response to be encouraging for future campaigns. None are planned at this time, though. Crown Coordinator produced a Geotourism Handbook in his grad student role at University of Montana prior to being hired by the Crown....a success Working with the coordinator now on an outreach program around the region to increase awareness and understanding of geotourism and the geotraveler.

7. If you have been involved in community outreach programs, how successful were they in terms of interest and attendance?

Respondent: 98.125.83.160
Crown resonates with audiences, who understand the region’s connections -- environmental/economic, geographic, geopolitical, etc. As economy falters, and geotourism economy booms, community interest increases

Respondent: 24.66.0.245
Fair

Respondent: 142.229.109.171
Conferences are a good way to network; positive experience; keen interest. Regional gatherings of tourism operators are excellent in terms of interest and engagement; very effective in creating a sense of "belonging" to the initiative. We have plans for upcoming tourism operator workshops that we expect will be very effective.

Respondent: 174.44.12.75
Have not, but intend to with a Whitefish meeting soon.

Respondent: 72.160.52.246
Medium interest and attendance. Mostly the "usual subjects". However, the principles of Geotourism have been well integrated by the tourism community in our area. Hopefully this will expand into the general public soon

Respondent: 161.7.84.236
I have participated in the regional Crown of the Continent Geotourism Council meetings that have been open to anyone interested. All have had good turnouts - 30-45 people with about a third being those who are attending for their first time. Discussions have been positive and very engaged with the goals and purpose of the project.

8. Please comment on effectiveness of the geotourism website. Use the following questions for guidance: Have you contributed to online content? In what capacity have you contributed? What would lead you to contribute or update more often? Are there any changes to the website that you would like to see made? What can be done on the website to drive more traffic and increase visibility of the project?

Respondent: 98.125.83.160
Website needs to continue including a conservation message, such that the business emphasis does not lead to exploitation that kills the goose laying all these golden eggs.

Respondent: 24.66.0.245
We have contributed as a lead agency and will continue to do so. Social media programs can drive more visitation.

Respondent: 142.229.109.171
Have not contributed. We have not done deliberate promotion of the website. I believe in order to drive more traffic to the site, there needs to be a clear marketing plan that utilizes tools to target the geo-traveller.

Respondent: 174.44.12.75
Yes, but not lately. I need to go back in and look at what I have done in the past and refresh. We need to get our members to get the website out there, like it on Facebook.

Respondent: 72.160.52.246
I am a contributor responsible for about 25 entries. An email reminder to update entries would be helpful.

Respondent: 161.7.84.236
No, I have not contributed to the website. Have left the contributions to those who are more "expert" on the Crown. Feel the website is in good hands with current management. The promotion efforts of the MT, AB & BC tourism offices can help as well as continuing to add content to the website and e-newsletter outreach to the subscribers.
9. Would a reasonable membership fee to sustain the website and GSC activities be appropriate and/or worthwhile to you?

Respondent: 24.66.0.245
We already are a contributing funding partner.

Respondent: 142.229.109.171
No idea; would, perhaps, be worth creating different levels of support (Sort of like the PBS model?) The trick would be to create value for the subscriber, and the cost of doing that would need to be factored in, to ensure this is a valuable approach.

Respondent: 174.44.12.75
Yes, we are already contributors.

Respondent: 72.160.52.246
Depends.

Respondent: 161.7.84.236
An opportunity to donate may be beneficial...which would be the same as a voluntary membership. also, developing a marketplace for geotouristic products, bookings at lodgings, participation in guided tours, etc. thru the website may be another revenue generating idea

10. Has the project manager/coordinator been effective in facilitating internal and external communication and strived to meet the project goals? What have been the strengths and weaknesses of the project manager during this process?

Respondent: 98.125.83.160
Very effective. Having a single go-to point has proven to be critical, and has increased an already effective program. The coordinator's personality makes him uniquely suited to bridging potential gaps between divergent partners. Any weaknesses generally go back to a general lack of resources.

Respondent: 24.66.0.245
New but very effective.

Respondent: 142.229.109.171
Strength is personal commitment, knowledge, and patience in supporting a very large initiative with few resources.

Respondent: 174.44.12.75
Yes. He seems to be doing all that was asked and more.
Respondent: 72.160.52.246
Yes. We are just beginning to work with our second coordinator.

Respondent: 161.7.84.236
As mentioned before, we have been extremely lucky to have an initial coordinator - Steve Thompson - who was very passionate about this project and went over and above expectations to make it work. Our new coordinator - Dylan Boyle - has taken up Steve’s footsteps, put his own gait to them and doing well during his first six months.

11. In your opinion, where is National Geographic’s geotourism project cycle in need of improvement? Please comment on challenges and/or successes experienced during the implementation of this project so far.

Respondent: 98.125.83.160
Need ongoing research to determine effectiveness of project -- outcome-based surveys will indicate how visitors are using the information, and how that information is influencing travel.

Respondent: 24.66.0.245
Sustainable funding is an issue.

Respondent: 142.229.109.171
A high level of engagement in the "development" stage is difficult to sustain once the excitement is over and the product (mapguide) is complete. Perhaps the project cycle needs to include some ongoing "connection" with NG: the value to the initiative is that close relationship with a powerfully branded entity.

Respondent: 174.44.12.75
We will need to reprint the map soon and take a look at revisions. We also need criteria for being included in any of the COTC products- website or map.

Respondent: 72.160.52.246
Since we were on of the first projects, we have been the "guinea pig" in many ways, and have been making it up as we go along. Each project is going to be unique in its challenges.

Respondent: 161.7.84.236
I think the project cycle worked well. Nat Geo has adjusted their project elements as they finished projects based on the experience and I think they’ve made good adjustments. Being one of the earlier projects, we found Nat Geo flexible to respond to our unique needs and watched them add elements or change the project order based on their experience with us. Those are all good things.
12. *In your opinion, what are the next steps (both short and long term) that need to be taken by the GSC in order to keep this project moving forward?*

Respondent: 98.125.83.160
continued partnership building; further outcome-based research; continued outreach; continued mainstreaming of conservation message

Respondent: 24.66.0.245
Possibly a major symposium in the short-term. Self-sustaining funding model for long term.

Respondent: 142.229.109.171
Our geotourism business operators need to become the driver of this. As we implement the workshop plan, we can also use those gathering as an opportunity to engage operators at the front-line level. There are many good ideas among these business people, and if the initiative has value to them, they will work hard to build the support needed.

Respondent: 174.44.12.75
Develop criteria for inclusion on the website so we don't dilute the project. Have some meetings with people who were involved in the early stages and get them reconnected.

Respondent: 72.160.52.246
GSC should work to build stronger recognition of the project and of Geotourism, to ensure future success. If businesses do not see an economic benefit, they will not support the GSC or participate. THIS SURVEY IS TOO LONG.

Respondent: 161.7.84.236
Identify a revenue stream or funding source to keep it going in the long term. In the short term, we need to get back out into the region with more geotourism education, updates on geotraveler and more understanding that the project exists, education on how communities, businesses, organizations can benefit from the project and bring benefits to it.
APPENDIX L:
SIERRA NEVADA GEOCOUNCIL ASSESSMENT
Open-ended responses

TEC: Tahoe Emigrant Corridor Geocouncil Member
SW: Sierra Wide Geocouncil Member
SS: Southern Sierra Geocouncil Member
YG: Yosemite Gateways/Byways

9. What are your main reasons for being on the Geocouncil and for being involved in the Geotourism project?

• Trying to make sure that the voice of business and tourism was heard. (TEC)

• I want to support the local economy in a sustainable way. (TEC)

• To give a voice to my region. To make sure nominations are historically accurate. To make sure sensitive natural areas are not promoted or that already overused areas are not included as sites. To promote heritage tourism in area without compromising that heritage. (TEC)

• I feel that I have a good grasp of, and appreciation for, Geotouristic resources throughout the range and it is important to me that richness of these resources be conveyed to the world. (TEC)

• I am the author of a book, Lake Tahoe: The Guidebook with a Point of View. In my book I promote the same kinds of activities that geotourism web site promotes. I think it is the way of the future. (TEC)

• Hope to best direct visitors coming to Lake Tahoe to activities and areas that are appropriate. (TEC)

• I love the Sierra Nevada region; it has been my "backyard playground" for 25 years. I have always sought out geotouristic-type assets (before even hearing the term) for leisure activities and travel. I am especially passionate about preserving and honoring the historical and cultural heritage of the Tahoe region. I wanted to be involved in a project that I believe can contribute to the sustainability of the region. (TEC)

• Long background in and belief in the value of sustainable tourism (TEC)

• Promote increased low-impact, environmentally appropriate tourism to the region. (SW)
• to help promote the sierra as a special historic area and special places and customs of its past (SW)

• The SNC feels the GT project furthers our mission of improving environmental, economic and social conditions within the Sierra Nevada (SW)

• I believe in the concept and have been engaged in this kind of work for a long time....and I have a special affection for the Sierra. Along with the coast, the Sierra is one of California's two prime crown jewels from my perspective and needs to receive equivalent attention, affection and nurturing for its natural, historical and cultural qualities. (SW)

• I want to help drive more tourists to my small community, helping to create jobs and increase revenue for the local business. (SS)

• To help promote tourism in my area. (SS)

• Continue emphasizing local value and sustainability. slight possibility, very slight, of increasing visibility and visits to my own facility (SS)

• To support a new type of economic development that promotes and encourages the ethical practices while giving locals a mean to collaborate and be part of an identity. (SS)

• The ability of this project to educate prospective visitors and attract a more responsible, higher quality visitor that are willing to take the time to learn the area and come prepared for the adventure they seek. (SS)

• I was asked to be a member. Also to make sure that the interests of the Federal Land Management Agency (Forest Service) are being met by the nominations that cover federal land and/or property. (SS)

• As a promoter of tourism to the Southern Sierra region, it’s vital that the Convention and Visitors Bureau and our partners play an active role in supporting geotourism in general and make the commitment to promote sustainable tourism. (SS)

• We thought there was potential. (YG)

• To represent Yosemite National Park (YG)

• I want to help my community and preserve the uniqueness of our area through sustainable tourism. (YG)
10. In your opinion, what metrics (measuring project effectiveness) are important to capture for this project and how do you suggest those metrics be captured?

- Web statistics are key. Usage, time on site, exit pages. (TEC)

- Most of the questions in the previous sections. Survey some features that are listed and some that are not and see if the previous questions would be answered differently in the two groups. (TEC)

- Volume of tourists, shoppers, etc and increase in revenue. Surveys of business owners, tax revenue increases. (TEC)

- Obviously hits on the site. Favorites and nomination comment sections should be monitored for use and actual visitors to the nomination site should be encouraged to provide commentary following their visit. Nominations that can, might be encouraged to offer a small discount to visitors who access them utilizing the Geotourism site. (TEC)

- I don't know. (TEC)

- ?? (TEC)

- We need to evaluate awareness by measuring hits and click-throughs on the geotourism website over time. Beyond that, I'm not really sure. (TEC)

- Not sure what metrics are used in our area. (TEC)

- Page views of the Web site are good indicators. Trying to see if the web page is driving visits to specific sites (a National Forest, for example). This could be accomplished, I think, using some Google, Yahoo, Bing searches and seeing where the Geotourism Web page ranks during searches. (SW)

- links between website visits and actual visits; # content pages visited, length of time on (which?) pages; grouping of most popular and least popular pages in order to make improvements/adjustments (SW)

- I'm not your best metrics person.....but certainly we want to measure web visitation and somehow try to monitor on-site visitation and try to correlate it to the geotourism strategy. Other metrics include partnerships formed, relationships built and new initiatives launched and completed across the region. (SW)

- how many people visit the site is helpful and to able to know which areas they are looking at. (SS)

- Need to know the number of "hits" on each region and place/event. (SS)
• Website-collected hits to the home page for So. Sierra and then each Nomination's listing and then clicks to that Nomination's website. Most nominees probably have no way to do this for themselves. (SS)

• If possible, measuring how many visitors went to a certain event, hotel, restaurant, trail etc. specifically because of the promotion of Geotourism. This will be hard to measure effectively but providing a questioner for restaurant owners, hotels, trails heads (probable a forest service office) to pass out or have at a front desk would be helpful. Then as visitors walk in and fill out a survey you may find out where they heard about this geotourist item. In addition, you may be able to partner with the visitor bureau or other entity to get a question added to ongoing surveys. (SS)

• Looking at the number category of hits versus the number of follow up responses. (SS)

• Use of the web site could be one metric that I would believe could easily be measured by counting the number of hits on the web site. Tying it to visitor use numbers and surveys that are conducted by the various federal agencies (Currently the Forest Service conducts a National Visitor Use Monitoring study once every five years for each National Forest) (SS)

• no opinion (YG)

• Number of people that look at and use the map, the use/usefulness of the map for various organizations in their promotion, the "purity" of the map to evaluate that it stays true to its original goals in the selection of places included. (YG)

11. Please comment on challenges and successes that you have experienced during the implementation of this project so far. Be sure to include both successes AND challenges.

• Feel there has been moderate success in introducing some tourism elements to the site. Feel there is far too much insistence on 'sustainability perfection' in judging nominations. (TEC)

• It was great to work with my neighbors and to learn more about what we have. The web site stinks, and I am afraid that it will turn potential visitors away. I understand that there is data that show a lot of people visit the web site and quickly go away. (TEC)

• Success: Getting more people informed about the variety of activities and places to go in region. Getting Historic Highway US 40 put on mapguide to
help tie region together both thematically and geographically. Establish a core of various people to push for project. Challenges: Remembering that geotourism is not simply ecotourism, but a broader concept. Accepting that some activities and sites are appropriate even though personally will not visit them. Convincing National Geo that not all endorsements are equal and some organizations (like Audubon International) are bogus. Dilution of message; if everything is nominated as a site in a region, what distinguishes them from each other. (TEC)

- The website has had its challenges but has been evolving and improving. Various commercial entities, chambers and visitors bureaus often nominate sites that don’t define geotourism adding to the workload of the council members reviewing nominations. Interaction of the geocouncil with these entities often serves to educate them about the basic concepts and considerations of geotourism i.e. sustainability etc... and might drive them to modify their business plans to reflect these standards. (TEC)
- Challenges are to learn to use the geotourism website and to have visitors access my entry. Successes are that I have been able to help others create their web sites. (TEC)

- Friendly and enthusiastic staff and group of participants! Challenge is that there are so many websites for Tahoe that the Geotourism site, itself, may not float to the top (TEC)

- Getting awareness of the project out into the community at large has been a challenge. So many people are still unaware of what geotourism is, and why it’s important to our region. I am concerned that after all the hard work we’ve all done, the Mapguide will be under-used. The assets on the map need to have an identifying sign with logo so that the casual tourist will become more aware. I have experienced personal successes: 12 accepted nominations of my own, including the business where I work. Our business was honored by the South Tahoe Chamber of Commerce with the Blue Business award for Geotourism, and I’m very proud of that. (TEC)

- difficulty in communicating value to local residents so that they nominate sites (TEC)

- Getting the page up and running was quite a feat. A nice feeling of accomplishment. The biggest challenge will be to keep the page and its contents current, and market the page to drive traffic to it. Getting local government funding will also be a big challenge, but that seems to be the most logical source of funding. Resisting the temptation to sell ads on the site and otherwise make it more commercial, just like any of a dozens similar sites, will be tough. (SW)
• needs to promote the project more into visitor centers and material into the hands of visitors as they come into the Sierra Nevada (SW)

• Wonderful community support and participation; Arts Councils involvement; dedicated geocouncils; support and participation from consultants and state/county reps/Natl Geo; SW Geocouncil participation; great job by SBC staff- Not enough marketing/use by public too low; need major articles/ads in Via, Sierra heritage, Sunset, etc to get the word out. (SW)

• My role has been merely advisory and from a distance. The team has made my participation easy and productive and has been both patient and persistent with regard to my participation. (SW)

• Success at getting local interest and ideas. Challenges, getting locals to write and submit the nominations. Some people are having a hard time understanding that it is free international advertising. (SS)

• Pretty easy to nominate, but getting people stoked about it is a little difficult, not knowing if it has any effect on tourism. (SS)

• The time commitment is far greater than I was expecting; the travel and associated costs are looking to be significant. I am probably one of the few council people who is a private business owner with no employees and no budget and no reimbursement, so my only paybacks are psychic (a la Jerry Brown) and possibility of future increased revenue. (SS)

• Collaboration efforts have been a great success. The main challenge is the changing locations of the GeoCouncil meetings, one central place would be better. (SS)

• Assuring that this is an opportunity to put the kind of information about a feature you want out their and that this is not just an advertisement to bring lots of any kind of people to spoil the feature. (SS)

• Convincing people to submit nominations. (SS)

• Challenges: the boundaries of the map do not include the geographic area I am directly responsible for promoting, and our partners are also on the geotourism council! Successes: as a result of reaching out to area Bed and Breakfasts for the project and holding meetings to support/encourage Visalia's outlying areas to complete nominations, we've increased our partners and will continue to work hand and hand with the folks with whom we've connected as a result of sharing similar goals for geotourism in Visalia's backyard. (SS)
• The entire project has been a challenge. From the lack of direction in the beginning to the lack of educating the person making submissions as to the requirements has been lacking. The mapping was and still is extremely difficult to maneuver. I have spent, quite literally, weeks devoted to this project to see most of my time wasted, because items I thought relevant were dismissed. Had the guidelines been clearly defined, this project would not have wasted so much of my time. In my opinion it does not do any good to promote geological assets and not include more modern assets including accommodations, information, attractions, etc. I love history, culture and nature but I don’t want to stay in a kibbutz or hostel. (YG)

• Difficult to take the time to participate, the workload seems large. Also I came in toward the end of the map creation it was difficult to see the larger vision for the project. Perhaps better communication would have helped. (YG)

12. Considering both project cost and benefit of brand recognition, how valuable do you consider partnership with National Geographic to be? Please comment on National Geographic's guidance in this project.

• The presence of the brand and what it could bring to the site is irreplaceable. (TEC)

• It adds a lot of weight I personally have had no guidance from NGS (TEC)

• Very valuable. I wish the Geocouncil had been briefed in detail on National Geographic’s criteria and methodology early in the process. That would have provided a common set of rules applicable during the screening exercises. Bob Kingman emphasized authenticity repeatedly, but in the absence of specific National Geographic guidelines, council members were left to interpret “authenticity” as strictly or loosely as they wished. National Geographic may be left to do some serious culling as a result. (TEC)

• I consider the branding critical to the project. Nat. Geo has international recognition. I think the project manager is much more attuned to the Nat. Geo. guidance of the project as they are the primary interface (TEC)

• I think it is very valuable. I do not know what the National Geographic’s guidance has been. (TEC)

• The primary value of the effort is the NG affiliation; otherwise, it’s just another website (TEC)

• I think the partnership is absolutely critical to the project’s success. Without NG’s name recognition, I don’t think it would have been viable. I was not
personally involved with NG, but it seemed, from feedback, that they were very helpful. (TEC)

• I continue to think that the website is slow and clunky, and that there is overlap of categories. (TEC)

• Without the National Geographic name, this would just be another in a long list of regional web pages touting recreation, events, outdoors, etc. National Geographic's imprint creates value and name recognition and credibility. (SW)

• extremely valuable (SW)

• Couldn't do without the partnership (SW)

• National Geographic is critical at many levels. Its brand remains strong and valued and commands respect and attention. Staying true to the brand and to the stated values of geotourism is very important to the success of the endeavor. (SW)

• National Geographic has a good reputation that adds legitimacy to the project. (SS)

• Highly desirable. their guidance appears to be at arm's length, which I like. (SS)

• Very positive but there are so many tourism websites, there may be better venues we have not found yet (SS)

• To date they do not seem to have much involvement besides the contribution of their name. This is a big asset to have but it would be great to have more on the ground support from them. It seems expensive but also a good investment. For the amount of money being spent as well as the free advertising that they are receiving from this initiative it seems that they should be a bit more involved. (SS)

• Very Valuable. (SS)

• My gut feeling tells me that it is a huge benefit to partner with National Geographic. (SS)

• This partnership is vital to the success from the project from a number of standpoints, but most importantly, locals are beginning to pay attention to the value of geotourism (and tourism in general for that matter) as a result of NG stamping this project with their name. (SS)
• Since I am not happy with my involvement in the project, I remove myself from placing further judgment. (YG)

• I don’t have any experience w/National Geographic’s involvement. Although I think it was critical that there is an agreement signed with the national park service. (YG)

• I feel that the partnership with national Geographic was valuable to the project, their guidance was very important and useful. (YG)

13. Did you experience any resistance within local chambers, tourist or visitors bureaus in collaborating on the project? Have you encountered any person or entity that views the project as competition rather than collaboration? Do you have any suggestions that might improve this collaboration?

• I am the local chamber/visitor bureau. I played. (TEC)

• Mainly what I encountered was inertia (TEC)

• No No, but I did hear some ask why do this project? Isn’t it the same publicity that the local chambers of commerce and the Welcome Centers do? Are we not just being redundant? (TEC)

• I did experience some resistance from a local tourist related entity that I pursued for collaboration on nominating local geotouristic sites. After several attempts at collaboration, I gave up. The only apparent issue that was voiced regarding the site was perception that the nominating process was onerous and time consuming, especially when trying to input several nominations. (TEC)

• No on both questions. (TEC)

• No, not personally (TEC)

• My experience with the local chamber and visitor’s authority has been overwhelmingly positive. They have embraced the project as critical in contributing to the economic sustainability of our area. I did not experience anyone who viewed it as competitive. (TEC)

• Some...everyone is busy and no one has any money to promote. (TEC)

• Most folk were more than happy to cooperate. This is a small rural area and anything and everything helps. (SW)
• yes need to have signs and brochures at local visitor bureaus (local places that have made the map guide) (SW)

• Yes- There have been some reps in communities who "couldn't be bothered"- and some with personality clashes- some work/nominations redundancy and competition between community reps Outreach before the nom periods- follow up- personal contacts. (SW)

• As merely an outside advisor, I’m not in a position to speak to this. (SW)

• No one has complained and most are very open. (SS)

• All feedback has been positive so far with respect to chambers, visitor’s bureaus and individual business owners. The difficulty will be in their follow through, which is typically low. (SS)

• No. Very enthusiastic. More than I expected (SS)

• So far collaboration efforts have been highly successful. This is due to the idea itself, as well as the overall culture of these rural areas. People get involved and what to see direct benefits into their communities. As time goes on people will either feel like the time they invested paid off and will continue to support these efforts or momentum will be lost due to no direct benefits received. (SS)

• Folks need reassurance that they can control content and that this is not just another marketing tool to be exploited without regard for the consequences. (SS)

• The resistance hasn’t been so much against the principles of the project. It more actually doing the nomination (sitting down and filling out the nomination form). I have been able to help some folks with the process, which really isn’t that hard. (SS)

• No, the project has brought entities together! (SS)

• Since I am not happy with my involvement in the project, I remove myself from placing further judgment. (YG)

• I do think it was seen as a competition. The best defense I would have to that would be to provide a clear, constant, consistent representation of the criteria and objectives. (YG)

• No. (YG)
14. What are your suggestions on how to improve the project and its impact (within a realistic dollars and hours budget)?

- The site must perform better. End of story. Load times are entirely too long, navigation is awkward, map functions are not smooth. (TEC)

- get a functioning web site  (TEC)

- Again, continue to fine tune and improve the user interface with the website including the nomination process. 2. Continue to focus on prominent web placement maximizing the exposure to the potential user and visitor base. (TEC)

- I think the website needs to be more user friendly. It is hard to access information at this point. (TEC)

- Figure out the niche tourists and draw up suggested itineraries for various areas  (TEC)

- We need to focus on awareness outside of the Sierra Nevada, by promoting the Mapguide to our tourist markets. Marketing takes a lot of money, so I'm not sure the best way to do that. As I said, each asset on the map should have a sign visible to identify them to casual visitors, as well as interested geotourists. (TEC)

- Have more face to face meetings with stakeholders, launch parties, etc. (TEC)

- Keep the web page current. Re-open nominations every 18 months to capture new businesses and events, etc., and delete those that are no longer operating or have changed to the point they don't meet the criteria. This would allow for more people and businesses and land management agencies to get involved over time. It would also create an almost continuous string of news coverage, much like that which greeted the opening of nominations. Keeping the page and the nomination process in the news will have to suffice until there is a marketing budget. (SW)

- More statewide outreach- makes regular folks want to participate and contribute. Formal presentations to Chambers of Commerce right out of the gate (SW)

- From my distant and limited perspective, I think the group is moving about as wisely and fast as it can to tackle critical assignments, set appropriate goals and widen and extend its impact. (SW)
• How is the project being advertised and promoted? It's a great alternative to AAA and other auto/tour organizations. (SS)

• I'm perfectly pleased thus far. My only downside is that I do not have the equipment to do decent presentations. But, I guess my sparkling personality will have to take care of that........... (SS)

• It seems that with the current budget a lot is being done. It is easy to come up with great ideas but finding the funding is what is difficult. It seems that outreach to leading agencies (forest service, board of supervisors and such) should have been prior to the formation of Geocouncil. Currently it seems that many GeoCouncil members are conducting this outreach, which means that there is less time spent with locals. (SS)

• The project delivers beyond any of my expectations. (SS)

• On thing that I have heard on numerous occasions is that the Map showing the locations of the various geotourism maps is hard to read and not very user friendly. Personally, I have found once I started to use it, it wasn't that hard at all and maybe that is because I am very familiar with the area I am interested in. If you were totally unfamiliar with a particular geographical area you could most likely miss some opportunities if you did not delve deep (enlarge) enough into the map. (SS)

• Since I am not happy with my involvement in the project, I remove myself from placing further judgment. (YG)

15. Please comment on the effectiveness of the project manager (include strengths and weaknesses).

• The leadership group for this region has done a stellar job. Nicole and Becky have worked hard and smart. I doubt it could have been executed better. (TEC)

• Nicole was good. Becky Bell was outstanding (TEC)

• I think that the project manager has been very effective and personable. She is a competent, proactive and an excellent communicator. (TEC)

• I think the project manager is very effective. (TEC)

• A true pleasure to work with and be around. Friendly - a perfect public face. Enthusiastic. (TEC)
• Nicole's presentation of the project at a seminar was my introduction to it, and her commitment inspired me to become involved. She was very confident and well spoken. She was knowledgeable as she guided the Geocouncil through the process, but at times, she seemed a little disorganized and maybe too casual in her manner. (TEC)

• The project manager has been highly effective. She has kept the group on task, follows up, works out problems and is a good communicator. (SW)

• project manager has been highly effective (SW)

• Great - she has warmed up considerably as the project has matured - asking for help and getting good participation is a great strength - very organized. (SW)

• Again, from where I sit, I've been very pleased and impressed by the project management and the team taking the lead. (SW)

• Don't know (SS)

• Everyone involved has been prompt, prepared and personable (SS)

• At this time I do not know enough about the roles and responsibilities to make an opinion. Everything seems to be going fine. It seems that the collaborations are the glue to this initiative (SS)

• Great. (SS)

• Very effective across the board (SNC, Sierra Nevada Business Council, Nat. Geographic). (SS)

• Absolutely fantastic! We have no complaints, whatsoever! (SS)

• Since I am not happy with my involvement in the project, I remove myself from placing further judgment. (YG)

• I think that the project could benefit from more marketing (YG)

• The formal resources assigned were professional, the community members were a mixed bag. (YG)
16. In your opinion, what are the next steps (both short and long term) that need to be taken by the geocouncil and the project management team in order to keep the project moving forward?

- Continuity of outreach. If efforts are not made to continue to attract nominations and add information, the site will become a footnote, used by few. (TEC)

- Get some data to see if it is working. That will help getting more people involved, and (hopefully) those that did the work feel good and be inclined to work on this kind of project again (TEC)

- I think that although deadlines are effective in maintaining forward momentum for the project, it is important to keep the nomination process moving forward in all of the geotouristic regions. The project should continue to be highlighted in regional touristic websites and entities. (TEC)

- Perhaps some kind of local promotion would be helpful. (TEC)

- Ensure website is up to date and doesn't go stale! (TEC)

- I am involved in the TEC Geocouncil continuation committee to keep evaluating incoming nominations. It might be helpful to get the TEC Geocouncil back together (maybe with the other regional geocouncils) to brainstorm. Since our official nomination period is over, we have only been getting a fraction of the number of nominations, so I think the area's enthusiasm/awareness has dwindled. Making the general public aware of the Mapguide and getting people to use it is critical. That will generate the enthusiasm necessary to keep the project going. I know I’m in it for the long haul! (TEC)

- Find funding. Secure funding. Again, local governments (state and counties and cities) seem to be the logical choices. (SW)

- ads or more media coverage in magazines  (SW)

- Keep the news coming out- more press releases and articles to papers for those who do not follow internet (especially in the Sierra there are a lot of these folks) (foster more relationships with writers) concentrate dollars to the printed maps- people really like these when traveling. (SW)

- I don't want to reinvent the wheel here. What I know of the plans, particularly in the arena of marketing in which I've been most involved lately.....I'd say the existing agenda for the future makes good sense. (SW)
• Reports on its effectiveness and ways to promote it among potential tourists. (SS)

• The short-term effects would be to finish up the nomination period. Continue to outreach to geotouristic sites to get the best nominations we can have that accurately represent the Southern Sierra. After this period is closed it will probably be best to get the Geocouncil engaged - you already have committed individuals engaged and can continue to use that resource. In addition, a way to get start advertising this website to tourist will be imperative. (SS)

• Follow up, follow up, follow up. (SS)

• Get the nominations finalized for the Southern Sierra Nevada Region. (SS)

• Since I am not happy with my involvement in the project, I remove myself from placing further judgment.

• Promotion (YG)
APPENDIX M:
Greater Yellowstone GSC Assessment
Open-ended Responses

<table>
<thead>
<tr>
<th>GSC members’ reason for council involvement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helped facilitate creation of the GY Geotourism MapGuide and willing to serve as tri-state manager in the future</td>
</tr>
<tr>
<td>The desire to attract visitors who may not have thought about the greater Yellowstone region as a place to visit and vacation, only Yellowstone itself.</td>
</tr>
<tr>
<td>As a nonprofit ski area, Bridger Bowl has engaged in a sustainable business model since the mid-50’s. In that we are a very successful and profitable, nonprofit, we want to be recognized a prominent example of a successful yet sustainable ski resort business model that does not rely on real estate development for profitability. Hopefully, other ski resorts will follow suit.</td>
</tr>
<tr>
<td>MT Office of Tourism has identified Geotravelers as our target market. The goals of Geotourism mirror the tourism development goals of the MT Office of Tourism and the state’s tourism and recreation industry’s Strategic Plan 2008-2012 (and its predecessor 2003-2007).</td>
</tr>
<tr>
<td>It is in my area and is a cooperative promotional effort. Provides a way to reach potential geotourists.</td>
</tr>
<tr>
<td>Inherited project from previous administration. Brand of National Geographic was attractive. Collection of data points was attractive and had many potential uses.</td>
</tr>
<tr>
<td>GSC comments on effectiveness of geotourism website:</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>Not participating, as we are not a tourism provider. Still feel that its potential has yet to be realized.</td>
</tr>
<tr>
<td>We have contributed to online content as the PR department at our institution. We want to make sure information about events is up to date.</td>
</tr>
<tr>
<td>I think the Geotourism map and functionality is great ... however, I think the individual geotourism region web site is not only a waste of money but unnecessary competition with all the partners websites. I see this happening all too often in our industry - special projects resulting in special independent websites - NOT GOOD! I think we should make these maps and data based driven functionality accessible to all the partners (still driven from one central independent geotourism server) so that we can all have the maps on our pages with the default topo region reflecting each partners area, respectively.</td>
</tr>
<tr>
<td>Serve as MT editor for the Greater Yellowstone Geotourism Website. Have not been as active in this role as I would like. On workplan to step up outreach to MT entities that should be listed on this site, but are not as of yet. Work harder on contacting those currently on the website listings, but don't know they are (because someone else put them there) and showing them the process of updating their listing, adding photos, keeping it updated, etc.</td>
</tr>
</tbody>
</table>
GSC opinion on important metrics for measuring project effectiveness:

<table>
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<tr>
<th># nights staying in region; precise locations visited if they could be tracked; dollars spent daily; nature of recreational activities selected during stay.</th>
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Specific questions related to geotourism through visitor surveys conducted on site and/or through e-mail.

Common metrics in the ski business are tied to skier visits. So, increased skier visits would equate support. However, price and profitability are also important measurements of success. Since this is a capital-intensive industry, we need to make a healthy profit to maintain the quality and safety of our services. Currently we are actively replacing antiquated infrastructure ie. old lifts. One of the primary metrics is minimizing carbon expenditure (avoiding unnecessary grooming). We also work hard at having as low environmental impact possible, ie. active recycling, clean ground water program, minimal road construction, etc. As well, we strive to provide the best wages for our year around and seasonal staff the we practically can. Bottom line is that we reinvest all of our net profit back into the ski area for capital improvements, reserves and operational expenses. All the while we strive to fulfill our mandate of providing the best ski experiences possible at the best prices using sound business practices like that of any "for profit" business.

Important measures: awareness of geotourism concept/sustainable tourism # or % of visitors attracted by geotouristic values of the region/sustainable tourism practices # or % of communities/businesses incorporating geotouristic/sustainable tourism practices in their operations/promotions; amount of locally produced goods, foods, services sold and/or make up a % of inventory available to visitors and residents by businesses and organizations operating in the region. How to collect/capture this info: on the ground surveys, surveying listings on geotourism websites, follow up surveys with visitors (contact info captured thru geotourism website visits, contact lists kept by region’s businesses and organizations) cooperative promotions organized by geotourism region partners with follow up conversion surveys of respondents.

Economic impact of promotional efforts - follow up online survey or intercept study
Visitor profile info from promotional efforts - to identify if they are truly different than our regular visitor profile

Google analytics indicating a robust website linking back into the states tourism websites would be good place to seek metrics. Weaning the project off of state subsidy and showing there is a market for retail of the map is a good metric.
GSC comments on challenges and success encountered during project implementation:

Frustration that National Geographic Society launched the product yet did little to ensure opportunities for continued funding of this marketing initiative.

Greater visibility through the geotourism web site is a success. Progress toward the geotourism visitor center in Driggs, Idaho is a success. Giving the concept of geotourism enough time and attention and incorporating the concept into promotions is a continuing challenge.

We have a successful ski area. We had a record skier visit count last year with much better than expected profitability and we look to repeat with even better visit and profitability metrics this season. The challenges for us are generally weather related, but we're fortunate to have good consistent weather (with a minimal need to make snow ... also a good mitigating factor environmentally). The economy has been a challenge, but because we are high value and people still want to ski, we have still done well. Our biggest challenge is with our bus program. We provide free daily shuttles for our employees and free weekend buses for adults and children. Even with free bus service, most adults won't ride the bus. Since we're only 20 minutes from town, many people will drive and come up and ski for a few hours ... alone. We have special discounted ski days called "Three on a Wheel to get the Deal" offering $15 lift tickets for cars or bus riders of 3 or more ... which has helped with our carpool message - but still have not had a lot of success in mass transportation.

Successes: Creation of website and MapGuide was a success. Successes: Have benefited from the generosity of Tim O'Donohugue to serve as a volunteer coordinator on top of his full time job as head of Jackson Chamber of Commerce. Challenge is to get all entities who should have listings on the website to do so and be interested. Challenge is to have a part time or full time coordinator of the project to ensure it moves forward. Challenge: to conduct outreach to spread the education and understanding of Geotourism, create a regional network for partnership, promotion, mentoring and community development.

GSC suggests for improvement of project and it’s impact:

Needs coordination and consistent management; higher marketing profile;

Develop an overall promotion plan.

As I mentioned before, get the maps on the partners sites and disband the promotion of an independent geotourism website. This should save time and money and get greater usage from the region and on the user end.

Greater Yellowstone Project needs an outreach program to build awareness and participation/support from the many businesses, organizations and entities in the region that fit under this umbrella. Yellowstone Business Partnership is one entity that does this and works in the same region. Need to find funding for YBP to coordinate this or work within the current three state partnership to do.
<table>
<thead>
<tr>
<th>GSC opinions on next steps, both short and long term, to keep project moving forward:</th>
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<tbody>
<tr>
<td>Funding and broader buy-in from three states and chambers of commerce in the region</td>
</tr>
<tr>
<td>Greater Yellowstone Project needs an outreach program to build awareness and participation/support from the many businesses, organizations and entities in the region that fit under this umbrella. Yellowstone Business Partnership is one entity that does this and works in the same region. Need to find funding for YBP to coordinate this or work within the current three state partnership to do.</td>
</tr>
<tr>
<td>Implement a plan to better assimilate the geotourism map functionality on each partner’s site - right now I think it ends up being out of sight and out of mind.</td>
</tr>
<tr>
<td>Review progress to date, focus on promotion, and complete the Driggs visitor center.</td>
</tr>
<tr>
<td>Would a reasonable membership fee to sustain the website and GSC activities be appropriate and/or worthwhile to GSC members?</td>
</tr>
<tr>
<td>Interested in management role as tri-state business entity</td>
</tr>
<tr>
<td>$300-$500 a year.</td>
</tr>
<tr>
<td>Don’t want to sustain the website ... but sustain the map programs updates, functionality, maintenance and server.</td>
</tr>
<tr>
<td>This would be one funding opportunity but needs to be combined with other funding services that could include on-line sales of appropriate products and services from businesses and organizations listed, base support from the three state partnership and sponsorships from appropriate private or non-profit sector entities.</td>
</tr>
</tbody>
</table>
REFERENCES


http://www.itrr.umt.edu/research09/GeotourismInCoCRR2009-1.pdf

http://www.itrr.umt.edu/research10/StatewideGeotourismRR2010_2.pdf


