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**Abstract:** Recently established protected areas in Victoria, Australia have included networks of fragmented land units, rather than the traditional model of contiguous landscapes or ecosystem types. This trend presents management challenges including the planning and development of interpretation, suggesting the need for new approaches. Using the case study of the box-ironbark (BIB) forest in central Victoria, Australia the study aimed to identify the best approach to interpreting the natural values of the BIB forest. The forest is protected through a range of parks and reserves across north east Victoria and is highly fragmented and widespread in nature and comprised of a network of degraded and recovering forest patches, presenting challenges for interpreting the forest. A review of Australian protected area management agency documents and 20 qualitative interviews with BIB forest stakeholders were completed. The study findings contribute to the practice of interpretation by identifying a number of key lessons that can be applied to interpreting other regionally based topics or ecosystems; including the importance of stakeholder engagement and development of partnerships, such as between tourism and protected area management bodies to integrate interpretation with promotion.

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The challenges of interpreting fragmented landscapes in a regional context: a case study of the Victorian Box-Ironbark Forests, Australia

Abstract
Recently established protected areas in Victoria, Australia include networks of fragmented land units, rather than the traditional model of contiguous landscapes or ecosystem types. This trend presents management challenges including the development of new approaches to interpretation. A review of Australian protected area management agency documents backed by qualitative interviews found 6 best practice approaches. Their validity was tested using a case study of the box-ironbark forest protected area in central Victoria, to identify potential approaches to interpreting the natural values of the forest, which is highly fragmented and widespread, comprising a network of degraded and recovering forest patches. 20 in depth qualitative interviews with forest stakeholders were completed. Seven key points emerged including the need to: involve all stakeholders in discussion; coordinate approaches across relevant agencies; a unified approach and brand creation; creation of common themes and story lines; the value of partnerships, the role of interpretation in assisting managers to achieve their objectives and the value of linking interpretation with tourism marketing and resident involvement. The study findings contribute to the practice of interpretation by identifying the lessons above and to sustainable tourism development in complex protected areas, with special relevance to ecosystems tourism and interpretation.

Key words: Interpretation, Australia, box-ironbark forests, national parks, regional planning

Introduction
The establishment of new protected areas creates many opportunities and challenges. They include how to interpret the values of the area, as part of the process to validate the changed protection and use status to local residents and resource users, and to promote those values, and the area itself, to potential tourists. It is widely recognised that the creation of protected areas disadvantages some existing users and communities, and although the establishment of protected areas is largely driven by the desire to conserve the natural environment and biodiversity, local development through tourism is often proposed as an incentive for the establishment of new parks (e.g. Brown, 2004; Lawton,
2001) Australia’s national parks and protected areas are an important attraction for both domestic and international tourists (TTF, 2007), and many studies show the contribution that national parks make to local economic development through tourism activity (e.g. Carlsen & Wood, 2004; Buultjens & Luckie, 2004).

While the parks and reserves in the Australian state of Victoria were established from the 1880s, since the Land Conservation Council was established in 1971 to defuse controversies over land development and protection (Clode, 2006) there has been a major expansion of Victoria’s parks and reserves system from 256 thousand hectares (c. 1% of the state) to over 4 million hectares in 2009 (17%) (Clode, 2006; Parks Victoria, 2010).


The initial focus of these bodies was largely on geographic regions, with recommendations often resulting in the creation of large national parks with relatively intact ecosystems across iconic landscapes, such as the Grampians National Park in 1984 and the Alpine National Park in 1989 (Parks Victoria, 2007a). From the late 1980s, the focus changed to a more cross-regional thematic or ecological approach (Clode, 2006), resulting in major investigations of ‘wilderness’, ‘rivers and streams’, ‘marine and coastal’ themes as well as ecological associations around vegetation types such as the box-ironbark (BIB) forests and woodlands. This latter investigation considered the use and management of highly fragmented areas of remnant vegetation on public lands. The
investigation outcomes saw the establishment of a network of parks and reserves made up of many small protected pockets of vegetation across a broad populated and largely agricultural landscape.

The challenges of planning and managing such a fragmented network of protected areas to achieve conservation outcomes include small unit size, high boundary-area ratio, habitat fragmentation and lack of connectivity (Possingham et al., 2006; Worboys et al., 2005; Pigram & Friesema, 1997; Commonwealth of Australia, 1997; Parks Victoria 2000). The resultant threats to flora and fauna include invasion of weeds, increased nutrient input and predation (VNPA, 2010). Bennett (1993) has argued that given the different land uses and tenure, and the patchiness of the natural environment in these regions, a landscape scale approach is required for biodiversity conservation, and Davey (1998) and Possingham et al. (2006) recommend managing such fragmented protected land units as a network or system.

The fragmented nature of these types of protected areas presents opportunities and challenges to managers, not least of which is how to interpret these regional landscapes. Interpretive planning is typically applied at the area or specific site level rather than at strategic and regional levels: however, strategic and regional approaches are needed for specific regional ecosystems, vegetation communities or defined geographical regions. This study sought to investigate the best approach to interpreting the natural values of the BIB forest, a case study of a regional vegetation community located in central Victoria, Australia.
Establishment of the box-ironbark reserve system

The BIB forests and woodlands lie inland of the Great Dividing Range in northern Victoria, and provide a unique system of habitats of high biodiversity (Environment Conservation Council [ECC], 2001). Covering almost 3 million hectares, or 13% of the state of Victoria at the time of European settlement, by the late 20th Century, only 17% of the original BIB forest remained (Parks Victoria, 2007b). Most of this was on public land, was highly fragmented and had been degraded by grazing, timber cutting and mining (much of Victoria’s historical and current gold mining has occurred within the BIB forest area) (ECC, 2001). As a result of land use practice, fragmentation and loss of habitat, a high proportion of flora and fauna species within the BIB forest are threatened or in decline.

The BIB forests and woodlands are a distinctive class of ecosystems found across northern Victoria on gently undulating country with stoney or low fertility soils. They are characterised by an overstorey of eucalyptus species usually including a mix of ironbark and box-bark eucalypts and a diverse understorey of shrubs, herbs and grasses. The BIB forests are renowned for their biodiversity, with a rich floral and faunal diversity (around 1500 species of higher plant have been recorded), much of which is rare or threatened. The conservation values in many Box-Ironbark areas are high, because of the scarcity of what remains and the risks of further degradation (ECC, 2001).

The instigation of the BIB investigation by the ECC resulted in the mobilisation of groups such as Timber Communities Australia, Prospectors and Miners Association, and Bush Users Groups in vocal opposition to restrictions on their activities through the creation of ‘parks’ (Clode, 2006). Despite the difficult and divisive consultation process,
the Victorian government accepted the ECC recommendations and proclaimed a network of new and expanded BIB parks and reserves in October 2002, to protect and enhance the natural and cultural values of the forests. The BIB reserve system was expanded from 69,500 hectares to about 190,500 hectares (equivalent to 6.5% of the original extent of Victoria’s BIB forests and woodlands) (ECC, 2001), and protected BIB forest across a wide area of Victoria from Stawell in the west to near Wodonga in the north-east of the state. Along with important biodiversity values, the parks contain significant Indigenous heritage, as well as some of Victoria’s most important historic gold mining landscapes and features (Parks Victoria, 2007b).

This study is focussed on the BIB forest surrounding the regional city of Bendigo, famous as a gold mining centre during the 1800s. The fragmentation of the BIB forests on public lands, and thus the high extent of boundary with private land, and the close proximity to the City of Bendigo and smaller centres mean the forest is highly accessible to the local community for recreational use, which prior to the creation of the park included many activities incompatible with conservation of natural values from rally car driving to rubbish dumping.

The Greater Bendigo National Park protects over 17,000 hectares of forest in a number of separate blocks surrounding the city (Figure 1). Closer to the city and its suburbs is the Bendigo Regional Park covering almost 9000 hectares, also important for biodiversity protection, but with a greater emphasis on recreation in natural surroundings (ECC, 2001). BIB forest also occurs in the urban and peri-urban areas around Bendigo in a range of other designations and tenures, including State Forest, bushland reserves, local council parks and water supply reserves, as well as unreserved forest on private land.
Parks Victoria is the State government agency responsible for managing the larger blocks of forest protected for conservation and recreation purposes, the Greater Bendigo National Park and the Bendigo Regional Park.

------------ Figure 1 about here --------------

Figure 1. Publicly-owned box-ironbark parks and reserves around Bendigo urban area.

The fragmented nature of the new BIB parks and reserves across the region presents a number of unique challenges for developing interpretation. Given the proximity of the forest to local residents, the great variety of historic uses, and the political opposition to the creation of the new protected areas, there are many stakeholders involved in the planning and management of the forests, and a diverse range of values held towards the forest (Parks Victoria, 2007b). Existing tourism promotion is based largely around the region’s cultural values including the gold mining history, rather than natural values. Some in the community see the opportunity for interpretation to raise awareness of the natural and conservation values of the forest amongst residents and visitors to the region and Parks Victoria wishes to interpret the network of new parks across the wider region.

Given these expected outcomes from interpretation, the aim of this study was to identify the best approach to interpreting the natural values of the BIB forest to both residents and visitors and thus inform the development of interpretation for other regionally significant vegetation communities, particularly in situations where they are fragmented remnants across a broader landscape.
This study was undertaken in collaboration with State and local government authorities (Parks Victoria, Department of Sustainability and Environment, North Central Catchment Management Authority and the City of Greater Bendigo) and the BIB Project Steering Committee - a community group with an interest in the promotion of the new park system and its values. Following discussions with these local partners, the study sought to address the following two research questions:

1) What are the key best practice approaches in Australia to interpreting natural values at a regional scale?  
2) How can interpretation best be provided to a range of audiences to raise awareness of the significance of the BIB forest amongst the local and wider community.

The second research question seeks to apply the learning from the first question to the BIB forest system and protected area network in the Bendigo region of Victoria. The study did not seek to develop a regional interpretation plan for the BIB forest.

For the purposes of this study:

- the ‘system’ refers to the box-ironbark forests in the Greater Bendigo region that can be found on land of various designations and tenures.  
- interpretation is defined as “a means of communicating ideas and feelings which help people understand more about themselves and their environment” (Interpretation Australia Association, 2009). There are many different ways of communicating these ideas, including guided walks, talks, drama, displays, signs, brochures, visitor centres and electronic media.

The study had two research phases, corresponding to the two key research questions. The first phase involved a review of Australian protected area management agency documents and plans relating to current regional interpretive practice and planning. This phase also involved searching for field examples of interpretive projects involving regionally significant vegetation communities. Confirmatory follow up
interviews with five protected area management agency interpretation staff from across Australia were also undertaken. The second phase involved interviewing twenty BIB stakeholders in the Bendigo region. This paper draws on the outcomes of the two phases with a discussion of the challenges and benefits of applying a regional approach to interpreting the BIB forests as well as lessons learnt that can be applied to interpreting other regionally based ecosystems or topics.

**Regional interpretive planning**
Interpretation that is effective and successful needs careful planning, yet in many instances the interpretive planning process is often truncated, inadequate or short circuited (Brochu, 2003; Hall & McArthur, 1996). Frequently interpretive planning is focused on two main elements 1) the story or main interpretive message and 2) the media or services to be implemented at specific locations, with little attention to identifying aims and objectives and undertaking evaluation (Department of Natural Resources and Environment [DNRE], 1999; Hall & McArthur, 1996; Veverka, 2000). Poor or lack of interpretive planning can result in ill conceived programs that often meet the need of the interpreters not the visitors (Capelle, Veverka & Moore, 1989), do not meet objectives, or the needs or interests of the target audience, and are not evaluated.

Over the past ten years the interpretation literature has discussed the benefits of planning yet at the same time has highlighted the inadequacy of interpretation planning across the world (Bolwell & Sutherland, 1996; Brochu, 2003; DNRE, 1999; Hall & McArthur, 1996; Veverka, 2000). Interpretive planning has been defined by a number of authors (Brochu, 2003; Dominy, 1998; Veverka, 2000) but for the purposes of this study
we use Dominy’s (1998) definition that it is a process ‘to establish a collaborative, focused and strategic approach to developing and maintaining meaningful interpretive and educational services’ (p.103).

There are many different interpretive planning models (Carter, 1997; Knudson, Cable & Beck, 1995; Veverka, 1994;) some more detailed than others, yet most include the seven basic phases identified by Sharpe (1982) determining objectives, taking an inventory, analysing data, synthesising alternatives, developing the plan, implementing the plan, evaluating the plan and revising the plan.

Interpretive plans are usually either a strategic statement or a detailed plan and may cover a specific site or a wider area. A strategic plan is appropriate for a region or large topic and aims to create a coordinated approach, cover a broad area, establish guidelines for more detailed plans, prevent duplication and encourage networks. In contrast detailed plans are more appropriate for smaller areas or single sites and set out a program of work, with clear objectives, identify themes and media, estimate costs and a schedule of action (Carter, 1997). Carter (1997) identifies three types of plans – regional, area or local and site-specific. According to Carter (1997) regional plans are strategic plans and should be based on a region which visitors and communities recognise, and in his opinion geographical regions work better because they have common theme elements than those following local government boundaries, unless they echo the geography. Examples of such regional plans include the Communication Strategy for Perth’s Regional Parks (Conservation and Land Management [CALM], 2002b) and the Arve Road Visitor Strategy in Tasmania (Hall & McArthur, 1993).
Interpretation is often part of a larger strategic heritage planning process, yet according to Hall and McArthur (1996) this process often fails to adequately understand the way stakeholders – the visitors and community - find meaning and significance in heritage (p. 34). In their opinion the strategic planning process needs to be geared to stakeholders rather than just the resource base, as stakeholder’s views are important in the strategic planning of heritage. They recommend managing heritage through stakeholder management and acknowledge that “the nature of the heritage resource, the meaning of heritage and the visitor management is dynamic” (p.22). Hall and McArthur (1996) recommend that a strategic heritage planning process should include a strategic analysis reflecting the situation of an organisation and combine a number of different types of analyses. These analyses may include an aspiration analysis that can identify the aspirations and interests of key stakeholders and assist management to develop strategic objectives and ultimately the heritage and visitor management programs such as interpretation. The views of stakeholders on values and guiding principles for management can be useful in developing and guiding the vision and objective setting for a heritage site. Hall and McArthur (1996) suggest that strategic planning for heritage should be planning with stakeholders rather than planning for stakeholders. This approach recognises the complex nature of heritage management and the need to integrate and acknowledge stakeholder’s opinions, perspectives and recommendations. Involving stakeholders mean that plans are more likely to be implemented and can establish greater cooperation between various stakeholders.

Hall and McArthur (1996) note that significant human resources are invested in developing regional and site specific interpretive plans yet they are often not integrated
with similar or related initiatives such as tourism or marketing plans. Many plans are poorly or only partially implemented for a number of reasons (see Hall & McArthur, 1996). They suggest that for interpretation to be successful it must be closely integrated with other dimensions of visitor management, such as strategic planning, visitor research and program evaluation. This is supported by a number of authors including Carter (1997) who suggests that interpretive plans should link in with other initiatives like marketing plans, promotion initiatives, tourism development, as well as school curriculum, development of recreation, economic development and strategic and local planning policies by widening perceptions and introducing a thematic approach.

Traditionally most interpretive planning has occurred at the site or area level rather than at the strategic or regional level (Veverka, 1994) and rarely across regionally fragmented landscapes. However, there are many benefits in adopting a regional strategy approach to interpretation for all the organisations involved, as it meets the organisations’ educational, management and communication needs and benefits all the stakeholders. It also allows the creation of a unified look or brand that reflects the landscape and stories such as consistent elements in signage. Such an approach can also minimise duplication of interpretive programs and products (Carter, 1997; Phillips, 1989). A unified approach has the capacity to create a positive visitor experience and enable the region to tell its story (Hazlitt, 2005) as well as encourage the interpretive experience to fit more easily within the broader tourist experience. The planning process itself can provide many benefits such as long term partnerships between organisations and community involvement (Hazlitt, 2005) and encourages greater cooperation among local governments, agencies and their interests (Phillips, 1989). Despite these benefits this type
of planning is challenging: it is collaborative, requiring compromise, and input from all the parties (Hazlitt, 2005). A review of the literature revealed few studies had applied a regional interpretive planning approach to a vegetation community though Lane (1996) used a collaborative approach between three organisations in the Australian Capital Territory to interpret native grasslands and Black and McKay (1996) reported on a coordinated regional approach based on the Australian alpine ecosystem rather than administrative park boundaries.

Utilising some of the key concepts of the strategic heritage planning approach (Hall & Mc Arthur, 1996) such as stakeholder involvement, this project began by identifying the best practice approaches to interpreting natural values at a regional scale and then with the assistance of local stakeholders in the Bendigo region, to undertake a situation analysis and explore local perspectives, aspirations and interests in relation to interpreting the BIB forest. A strategic heritage planning approach needs to take account of both supply and demand aspects of the delivery of interpretation, meeting the needs of those with an interest in heritage management as well as the consumers of interpretation. Thus, this project sought to understand the opportunities for interpreting the BIB forest, not to develop an interpretation plan.

**Approaches to interpreting regionally significant vegetation associations in Australia**

In response to the first key research question, interpretation plans and other documents from five Australian protected area management (PAM) agencies were reviewed to determine how a regional approach has been used to interpret regional natural values. This was followed by interviews with five key PAM interpretation staff to confirm their
experiences and perspectives on best practice approaches. The following discussion covers interpretive activities associated with those approaches, a review of the interpretation initiatives adopted by PAM agencies in Australia, and the application of current interpretation programs. Key lessons arising from the application of different approaches to interpretation are identified. A more detailed summary of this review can be found in Black et al. (2004).

Until recently, in Australia regional approaches to managing protected areas have been based on extensive areas with contiguous landscapes or ecosystem types for example the Australian Alps National Parks; the Wet Tropics World Heritage Area; and the Great Barrier Reef Marine Park (Black et al., 2004). Few examples of managing regionally fragmented blocks of land exist in Australia, suggesting the need to develop new approaches to managing and interpreting fragmented landscapes such as the BIB forests. While the review of agency documents found that all agencies responsible for managing extensive regional areas use promotion at a regional level to attract tourists, many do not coordinate interpretation activities at that level. The latter activities are usually the responsibility of individual parks and regional offices. Review of the agency documentation and follow up interviews with agency staff suggests that interpretive planning should ideally be conducted in conjunction with education and promotion at a regional level. A coordinated approach that addresses both the needs of park visitors and park managers is ideal. Ensuring the promotional messages are accurately linked to the on-site experiences provided by interpretation and education can assist linking visitors’ expectations with actual activities and achieve quality visitor experiences. The review of
agency documents and interviews with the PAM interpretation staff revealed six key points that could help inform the interpretation planning process for the BIB forests.

First, an ideal interpretive planning approach could involve coordination with education and promotion from the same agency level and use a whole system (region/landscape) approach. Key interpretive themes and messages could be developed for the interpretation and promotion of the system, based on the area’s major values and management requirements. This can guide the development of on-site interpretation as well as education and promotion strategies. An example of this approach is the Yellagonga Interpretation Plan (CALM, 2002a).

Second, a single administrative unit or section within one agency could oversee the planning of interpretation across the entire system including individual parks. This approach ensures that interpretation and marketing messages are consistent and that interpretation is given equal priority with marketing.

Third, in a situation where the administrative unit determines that a park interpretation plan is required and desirable, the plan can be developed to reflect both the individual park’s character and the system’s overall themes and messages, and that individual park themes and messages are not duplicated across the system.

Fourth, a regional approach needs to recognise that a range of interpretation approaches and media are valid, and allows for a diversity of visitor experiences and management requirements to coexist within the park system.

Fifth, interpretive themes can be mirrored in any promotional strategies for the system (region/landscape) as a single unit and develop a recognised ‘brand’ designed to become synonymous with the region’s values, visitor experiences and management
requirements. Interpretation together with marketing could consistently promote these values to ensure that potential visitors have realistic expectations of the sites they will visit and the behaviour expected in these areas. This requires some kind of partnership between park management and tourism agencies to ensure the regional ‘brand’ reflects the themes across the parks system and vice versa, thus presenting a challenge to both these types of agencies. Wearing and Nelson (2004) summarise the current problems and limitations of national park marketing and suggest a range of opportunities for park managers, tour operators and the tourism industry to consider when developing park promotion. Wearing and Nelson’s (2004) main concern is the disparity between the objectives of the tourism industry and protected area management agencies, as the former is primarily interested in the quality of the visitor experience, and for the latter conservation is paramount. Wearing and Nelson (2004) believe that by forming closer collaborations and gaining a greater understanding of each other’s objectives and roles, high quality products can be promoted without negatively affecting resources located in a park. Best practice in the promotion of parks requires cooperation between park managers, interpreters and marketers in order to pursue common goals. There is obviously only a small range of circumstances where these stakeholder goals are common, and therefore, where cooperation is likely to be successful (Wearing & Nelson, 2004).

Lastly, developing innovative interpretation appropriate to a regional system requires the involvement of various parties including the community, industry and other agencies. Consultation and developing partnerships with other organisations and the
community can be beneficial to all parties (Tourism Queensland, 2000; Dredge & Thomas, 2009).

Field research
To explore the second key research question, how interpretation can best be provided to raise awareness of BIB forest values amongst the local and wider community, the second phase of this study involved semi-structured interviews with key BIB stakeholders in the Bendigo region. A wide range of stakeholders were identified through discussions with our research partners, adopting both the purposive and the snowball sampling techniques (Neuman, 1997). Key target groups and individuals were identified and prioritised for interview based on their experiences and activities associated with tourism, community development, forest management or forest use and interpretation. Twenty individuals were interviewed covering a range of interests and affiliations, including state and local government departments, local community groups, a local university, large local businesses, visitor centre managers, conservation organisations, a tourism operator and chair of regional tourism committee and members of a BIB project Steering Committee. To ensure reliability of the data collected an interview guide was developed to cover the critical information we were seeking (Neuman, 1997; Veal, 1997), however the interviews adopted a semi-structured approach enabling exploration of the specific areas of interest or experience of each individual. A copy of the guide can be found on the online version of this paper as Appendix 1.

The interview guide covered questions on existing interpretation, education and tourism promotion programs and activities, (including those from various State and local government land management, conservation and tourism entities, as well as from private
companies, community groups and educational institutions), their understanding of the local tourism market and tourist interests, expectations and experiences, activities and interests of various sectors of the local community in relation to the BIB forest, and their perspectives on identification of key sites and interpretive approaches to disseminate messages to the local community and to visitors. Three researchers participated in the interview process, with at least two present in most of the interviews, with one asking questions and the other taking detailed notes. Following the interviews, the notes were reviewed by both interviewer and note-taker to ensure they offered an accurate record of the key points of the interview. As experience was built with the interview guide and stakeholder perspectives, some later interviews were completed by only a single interviewer asking questions and taking notes. Following the interviews, the written notes were transcribed into the computer and the data reduced by thematic coding (Crotty, 1998; Miles & Huberman, 1994). As well as the 20 key informant interviews, information was also gathered from meetings with project partners in State and local government departments, and through the gathering of secondary documentation, such as existing park and tourism brochures, park management plans, tourism plans and existing tourism data.

**Limitations of this research**

As this research was seeking an understanding of broad experiences and perspectives of stakeholders, written notes were considered to offer an adequate record of these perspectives. This approach does not allow a detailed analysis of the use and meanings of different terms, the language used by participants, the emotions expressed during interviews, however the research was not seeking this level of analysis. Audio recording
the interviews with the added effort, time and expense of detailed verbatim transcripts was considered unnecessary to this study.

An important question for all such qualitative studies is who to interview, and how many interviews are necessary. Any such study is not seeking to gather information representative of a whole community or population. Rather the purpose is to explore key issues, challenges, opportunities by identifying key individuals with the position, experience and knowledge to contribute to our understanding. On this basis, the 20 interviews with key people, appropriately sampled and drawn from different sectors of the local community, was considered adequate for our needs.

**Stakeholders’ perspectives on the BIB forests around Bendigo, their use and interpretation**

The stakeholder interviews raised a number of important issues relevant to the community use and perception of the BIB forests and the planning and provision of relevant interpretation. The key themes identified are discussed below.

**Need for a coordinated interpretive approach**

Stakeholder interviews revealed there are many existing interpretation programs, activities, resources, organisations and policies contributing to the outcomes of raised awareness, knowledge and understanding of BIB forest values. One interviewee said that “Lots is going on already but there’s a lack of coordination and integration”, another stated “there is a lack of coordination across and within the shire ... within stakeholders ... many people are involved but how do you make sure it is all inclusive and considered”. Some of these programs are community-based, while others are based on partnerships between community organisations and government agencies. Many of these
programs predated the declaration of the new BIB parks, were perceived as existing in isolation, or being delivered on an *ad hoc* basis.

Interviews revealed there are a number of existing facilities that provide interpretation and information to residents and visitors including the local council-run Visitor Information Centre, the Science and Discovery Centre and key tourist attractions. Two new centres were also planned: a Mining Interpretation Centre and a Forest Education Centre. The interviewees revealed many of the existing organisations would not support a new interpretive centre because of the cost and duplication that would result, but saw opportunities to better integrate existing interpretive and visitor centres as well as interpretive themes to coordinate the promotion and interpretation of BIB forest history and values. These findings suggest that a coordinated and more integrated approach among relevant agencies is needed, and would be welcomed by existing interpretation providers and stakeholders.

**Interpretation of the forest values**

As previously mentioned the BIB forest in the Bendigo region is fragmented and interspersed with developed landscapes, and public forest occurs across multiple tenures and is managed by a range of government agencies. According to some interviewees, this fragmentation in terms of designation and responsibility projects a confused picture to the general public particularly in terms of forest use, rights to use, as well as the public perception of management responsibility. The physical fragmentation presents an extensive ‘edge’ to the forest with many forest neighbours. All these issues have important implications for use and management of the forest. However, in contrast, these extensive boundaries and multiple small forest pockets within the urban area provide
good public access. The interviewees who were familiar with the BIB forest and its management indicated they thought the major forest users were residents, yet the majority of residents did not use the forest. Current usage is limited but varied, and includes walking and running, walking dogs, mountain bike riding, trail bike riding, nature studies, firewood gathering and rubbish dumping. “There are urban/forest interface issues. The conservation status is under development pressure from pets, fire, personal space and rubbish dumping”. The confusion over the status of the forest and limited use by residents suggests opportunities exist through interpretation to educate local residents by raising their awareness of the different management agencies and designations and encouraging pro-environmental behaviour among the residents.

**Interpreting the park values**
Unlike many other national parks the BIB forest is not recognised for its iconic values and its fragmentation challenges the community’s perceptions of a national park as generally a cohesive unit of land. The interviews revealed the local community are not connected strongly to the BIB forest, and it is not part of the community’s ongoing environmental education. The interviews showed that local residents do not yet perceive the Greater Bendigo National Park as a “true” national park, something worth visiting and protecting. Rather, there is a perception of the forest around Bendigo as just “scrub” or “bush”. As one respondent stated: “People don’t understand or appreciate the value or importance of the -Ironbark forests”.

Our findings indicate that current perceptions of the forests are often based around past attitudes and uses such as off-road driving, dumping rubbish and gathering firewood. “The bush has always been there to take fire wood from and to walk the dog. There are a
lot of preconceived ideas and opinions on the forest”. The forest is seen by many as an alien environment, intimidating to some as being not only dry and scrubby, but unfriendly and dangerous. It appears the declaration of the national park has not led to wide community acceptance or understanding of the national park and its values, and this was viewed by some interviewees as a lost opportunity. These findings suggest there is a need to provide regionally-based interpretation that promotes the values of the national park, particularly to the local community, as well as promoting a better understanding and appreciation of this new ‘model’ of a (fragmented) national park.

Current interpretation focuses on cultural values
Current tourism promotion, interpretation and the focus of the visitor experience do not promote forest/park natural values, nor recognise the existence of the forest or the park. The interpretive focus is on European cultural heritage, particularly the 1800s gold era. This sentiment was articulated by one respondent who said; “Tourism does not recognise the box-ironbark as a strong point of the region – the focus has been on the built concepts such as heritage and historic buildings”. These findings indicate that tourism, natural resource management and government agencies need to deliver a coordinated approach to interpreting and promoting the natural forest and park values to tourists and the local community. It is important to raise resident’s awareness of forest values and recreational opportunities, to draw visitors and residents into the forest and build wider understanding of the new conservation status of the forest.

Poor coordination of interpretive media
Interviewees also expressed concern about the lack of interpretive media such as brochures, and poor coordination between agencies producing and distributing this
material. As one respondent pointed out: “There is a lack of materials, it needs some sort of central coordination as there are so many different departments with different responsibilities”. It appears that while the BIB forest parks and reserves are seen as an important recreational resource for the community, they are not recognised as a tourist resource. These findings suggest that greater coordination among relevant agencies is needed in planning and delivering interpretive media.

**Opportunities for partnerships**
The interviews revealed some of the relevant agencies are already working together to develop coordinated interpretation and promotion strategies and media. However, the interviewees identified Bendigo as a growing community and a thriving economy with many large corporations presenting opportunities for corporate involvement. These organisations are currently involved in a range of community programs, investing in the future of the Bendigo community, and seeking further opportunities to support the community. These findings indicate there are significant opportunities for partnerships between government agencies, the community and businesses to work collaboratively to plan and develop interpretive projects.

**Discussion and Conclusions**
This study sought to identify the best approach to interpreting the BIB forest in the context of a fragmented regional vegetation community by reviewing the best practice approaches to interpreting natural values at a regional scale across Australia and seeking the views and opinions of selected local BIB stakeholders. The findings revealed there are many benefits, opportunities and some challenges in effectively interpreting such a regional landscape.
The evidence suggests (Clode, 2006) that many future Australian protected areas will be comprised of networks of parks made up of pockets of vegetation across a region, thus suggesting the need for new approaches to interpreting these types of landscapes. This paper therefore makes an important contribution to the practice of interpretation by providing some key lessons that can be applied to other regional vegetation communities and projects with a regional focus.

**Involvement of key stakeholders**

The involvement of key stakeholders in the heritage planning process is important because their views, opinions and perceptions can be acknowledged and integrated into the process and help formulate appropriate programs such as interpretation programs (Hall & McArthur, 1996). Our experience revealed the views and opinions of the BIB stakeholders were valuable because they had extensive knowledge of existing interpretation programs, community perceptions of the BIB forest and the newly established national park, and offered ideas for future interpretation projects. Our findings indicate that involvement of both interpretation and tourism stakeholders in the interpretive planning process is likely to result in a greater sense of ownership among the partners and more effectively integrate tourism promotion and interpretive messages. This information helped guide an approach to interpreting the BIB forest. Our experience with this case study reinforces the work of Hall and McArthur (1993; 1996) and others of the value of planning with stakeholders rather than planning for stakeholders.

**A coordinated approach among relevant agencies**

The declaration of the new parks created an opportunity to broaden the tourism appeal of the region, and at the same time, raise awareness of forest values. Yet, our research
highlighted the lack of connection between local land management agencies, and local tourism authorities, and the resultant lack of recognition of opportunities that the forest, and creation of the new park offer for tourism promotion. Developing interpretation across a region will frequently involve a number of different government and community organisations that have different goals, missions and audiences. Our experience with this case study revealed the need for a coordinated approach among relevant agencies to interpreting the forests. A coordinated approach may involve some challenges but many benefits (Hazlitt, 2005). In particular, any messages or themes on the values and roles of the BIB forest may be integrated into existing programs, activities, interpretive centres and tourism promotions. Experience in Western Australia (CALM, 2002a; 2002b) suggests there are benefits in having one agency as the lead coordinating agency. The findings from the agency document review indicates a collaborative approach to funding could be adopted, whereby agencies work together to achieve common goals, providing support for interpretation projects (Hazlitt, 2005). A coordinated approach would also assist in developing and distributing interpretive and promotional media and maximise the benefits of existing infrastructure such as interpretation centres. Our experience with the BIB forest is that this type of approach offers a self-sustaining model that minimises ongoing recurrent costs to the state government by focusing on a more coordinated approach to existing activities and supplementing this with a number of new small-scale initiatives.

A unified approach
One of the key benefits of a regional approach to interpretation identified by Carter (1997) and Phillips (1989) is an opportunity to create a unified image that reflects the
landscape and stories through aspects such as common regional themes and consistent signage. In our study interviewees identified the need for a branding signature of “City in the Forest” for the BIB forests of Bendigo. A brand would support the coordination of existing infrastructure, programs and organisations and the integration of BIB messages into existing (largely urban and mining heritage) interpretive themes. Brands can be used to promote and market regions to tourists as well as educating the local community about the uniqueness of the city nestled within a forest and can be used to promote a lifestyle message that reinforces the community’s place in the landscape. In particular the brand has the capacity to promote environmental messages to the local community especially in addressing some of the park-urban interface management issues (see for example Jamal & Watt, 2011, for a Canadian example of community involvement).

**Common themes and stories across the region**

The experience with this case study indicates the benefits of developing common interpretive and marketing themes and stories across the region. We found the cultural values of the area were interpreted and promoted, rather than the natural values of the forest. The literature (Ham, 1992; Lewis, 1981; Pastorelli, 2003) and our review of Australian PAM agency documents supports the benefits of creating themes that produce stronger links between the natural values and people, in particular telling human stories which link how people see and use the forest (CALM, 2002a; 2002b). Interpretive themes can adopt a human perspective that incorporates the diversity of themes and values intrinsic to the forest and desired by visitors (Hall & McArthur, 1996). The interviewees identified four topics from which themes could be developed: Indigenous culture and history; mining; post-mining; and contemporary use incorporating conservation values as
a park. It is important that European heritage which is currently the dominant theme in the city is linked with the forest and park values and resources. A regional approach to interpretation suggests it is important to develop regional themes that promote natural and cultural values (if applicable) that can be mirrored in marketing and promotion themes (Hall & McArthur, 1996).

**Interpretation can assist managers**
According to some authors (Hall & McArthur, 1996; Knudson, Beck & Cable, 1995) interpretation can be used to achieve many objectives. This case study suggests interpretation can be used effectively to explain and promote the value of the national park, particularly given its fragmented and dispersed nature, promote national park values across regional areas, as well as addressing management issues mentioned earlier in the paper.

**Opportunities for partnerships**
Our experience with the BIB forest supports the need and benefit of establishing partnerships among agencies, the community and business (Hazlitt, 2005) where opportunities exist to plan and develop interpretive projects, some of which could tap into new government funding sources and local businesses.

**Linking interpretation with marketing and promotion**
The interview data revealed the existing promotional and marketing approaches have the potential to be linked with forest interpretive themes. For example, existing promotions from the Goldfields Tourism could to be linked to the “City in the Forest” brand. Any new promotional material could incorporate forest images into promotional messages as well as human cultural stories into the forest interpretation. This approach would build
stronger links between the land management agencies and the tourism industry, resulting in a greater understanding of each other’s objectives and role, thus benefiting both parties (Wearing & Nelson, 2004). Linking interpretation, marketing and promotion is supported by the literature (Carter, 1997; Veverka, 1994; Wearing & Nelson, 2004) particularly at a regional scale as it has wide benefits for the visitor, site and agencies.

This study sought to identify the best approach to interpreting the BIB forests in the context of a regionally fragmented vegetation community by reviewing best practice approaches to interpreting regionally based heritage and gaining the opinions and perspectives of key BIB stakeholders. The paper assessed the challenges and benefits of this approach as well as identifying key lessons learnt that will contribute to interpretation practice and can be applied in other regional situations. The results of this study that are supported by the literature indicate there are many benefits of this approach including the involvement of key stakeholders, a more coordinated and unified approach, common themes and messages, addressing management issues, establishing partnerships and linking interpretation with marketing and promotion. However, as stated earlier, heritage management is complex and dynamic and presents some challenges especially in developing and maintaining a coordinated approach, as agencies have different goals, audiences, and values that require compromise, collaboration and input from all parties. The study findings highlight areas for further research, for example work to determine the most effective approaches to raising awareness of the values of the BIB forest amongst residents and visitors, and what role the forest has in drawing visitors to the region. More generally, where regional approaches to interpretation have been implemented they could be evaluated to determine whether objectives have been achieved.
Finally, this study has enabled us to reflect on the creation of a fragmented system of parks and reserves, a situation the authors believe will be repeated in Australia as protection extends across natural remnants in a wider inhabited and production landscape. Our understandings of public perceptions of the BIB parks and reserves around Bendigo suggest that extra effort may be required to promote and interpret the values of such parks that do not fit the public ideal of ‘parks’ as intact and iconic landscapes. In this case, the importance of protected area management and tourism stakeholders working together to integrate interpretation with promotion is highlighted.

References


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Appendix 1  The Interview Guide

Introduction
What is this project about? Introduction to what we are trying to achieve. Outcomes?

Involvement
What has individual’s engagement been with the National Park, with tourism etc? Level of knowledge of issues.

Existing situation
What is currently being done to promote tourism in Greater Bendigo area?
What is currently being done to promote tourism in Greater Bendigo National Park?
What information is currently available to tourists about GBNP? About accessing and using the BIB forest? About the values of BIB forest?

Objective to identify expanded program of interpretation, education and promotion regarding the values of the forest, and the forest as a tourist opportunity.

BIB forest use
Who are the important organisations/groups involved in planning, managing, promoting tourism in the BIB forest?
Who are the important organisations/groups involved in planning, managing, promoting local community use of and engagement with the BIB forest?

What are they currently doing? (to achieve identified outcomes)

What about education? Schools, community? How do schools use the parks? What opportunities exist to get schools involved? How could the BIB forest be used for education?

Crystal Ball gazing
What is possible?
What ideas do they have for presentation of information? For attracting tourists? For promoting the BIB forest?

What are the opportunities – to develop synergistic partnerships between existing programs/agencies etc? (What partnerships already exist, what more could be done?)
What links could be built between existing groups that might result in better flow of information, better promotion of tourism, better engagement with community?

What do they think should be done to improve interpretation and promotion of BIB forest to community and tourists?
Who should/could be involved? What would/could their roles be? How would this contribute to identified outcomes?
What are information needs, and where could this information be found?

Personal perspective on BIB forest
Favourite places in park? How could these be presented?