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Abstract

The published visitor management policies of national parks, national wildlife areas and refuges in Canada and the United States are important components of the overall management system. This paper analyses how the visitor management policies that apply to all units operated by each agency compare to each other and compare to an ideal framework, using data from publicly-available sources. Analysis was undertaken by policy comparison of all publicly-available documents available in the Canadian inter-university library system and the internet. The quantity and quality of visitor management policy is higher with higher funding levels, as demonstrated by the US National Park Service at the high end of the spectrum, and the Canadian Wildlife Service at the low end. The US National Park Service has the most comprehensive visitor management policy, and this policy is well coordinated in one overall document. The Canadian Wildlife Service has a very weak visitor management policy structure that lacks even basic goals for visitor management. Some visitor policy gaps exist for each agency. All agencies lack explicit policies governing visitor length of stay, human resources required for visitor management and economic impact measurement. This is the first policy analysis of this type undertaken. It provides a basis for the revision and improvement of these policies in the future.

Keywords

Park agency, policy analysis, protected areas, public, tourism, visitor management, national parks, wildlife areas
**Introduction**

Policy is a written course of action adopted and pursued by an organization (Eagles, McCool, & Haynes, 2002, p.41). Policy analysis involves an understanding of public policy, an assessment of its effectiveness and is ultimately directed at changing or improving policy. In a democracy, it is commonly assumed that the actions of government agencies are directed by policy. It is also expected that such policy is written, published and publicly-available.

Canada and the USA have large and mature protected area systems. These systems are largely concerned with two major activities; protection and management natural and cultural resources, and management of visitor use of these resources. This paper deals with developing an understanding of the policies directing visitor management in four federal protected area systems in Canada and the USA.

Visitor management policy refers to those written statements that guide the actions of a protected area agency and its managers in all aspects of park tourism and visitor management. This paper asks straight forward questions. What are the published visitor management policies of four major federal protected area agencies in Canada and the USA? What is their content? How do these policies compare amongst the agencies?

One might expect that the answers to these questions would show a comprehensive set of policies that direct all major aspects of tourism and visitor management. These policies would be publicly available, descriptive and enable any interested citizen to judge the policy structure of an agency as well as the specific directives governing individual activities. One might expect similarity amongst the agencies given their maturity and many years of cooperation and information exchange amongst the agencies.
The Parks Canada Agency, the US National Park Service (NPS), the Canadian Wildlife Service (CWS), and the US Fish and Wildlife Service (FWS) are responsible for four of the most important protected area systems in Canada and the United States. Each agency has its own legislation, organizational structure, mandate, and policies. These four agencies were chosen for the research because of their maturity, their national scope and because each agency has a twin in the other country. Canada does not have protected area agencies similar to the US Forest Service, the US Corps of Engineers and the Bureau of Land Management of the USA so no policy comparison between the two countries could be undertaken.

To the authors’ knowledge, no literature is available that compares the current publicly-available visitor management policies for these agencies. The emphasis in this analysis is on policy that directs the activity of the entire agency, as opposed to policies for individual field units.

Parks Canada reports 26 million person-visits annually (Parks Canada, 2004a, p.34), while the US NPS has 277 million visits each year (National Park Service, 2002). Unpublished data from the CWS reports that Canada’s NWAs service approximately 97,000 visitors per year (personal communication). The NWRs in the US had nearly 37 million visitors in 2004 (Caudill & Henderson, 2005).

Within Parks Canada person-visits refer to, ‘[p]ersons entering lands or marine areas within a reporting unit for recreational, educational, or cultural purposes during operating hours,’ where same day re-entries and overnight stays are counted as single person-visits, and through and commercial traffic, residents, staff, military training exercises, and, ‘traditional indigenous subsistence activities’ are excluded from counting (Parks Canada, 2004b, p.72). The NPS defines a visit as the ‘entry of any person, except NPS and service personnel, onto lands or waters administered by the NPS,’ for recreational or non-recreational purposes, where a ‘same day
reentry, negligible transit, and an entry to a detached portion of the same park on the same day are considered to be a single visit’ (NPS, 2003b, p.73). This definition differs from the Parks Canada definition of person-visits by the inclusion of people entering the parks for non-recreational purposes. The NWR definition of a visitor is, ‘someone who comes to the refuge and participates in one or more of the activities available at the refuge.’ A visit for an NWR is, ‘not the same as a visitor. One visitor could be responsible for several visits on a refuge. For example, if a family of four went fishing in the morning and hiked a short nature trail in the afternoon, they would have contributed 8 activity visits to the refuge; yet, they are only four visitors’ (Caudill & Henderson, 2005). The NWR definition of a visitor corresponds more closely with both the Parks Canada and NPS definitions of a visit since emphasis is placed on avoidance of recounting the same guests; therefore, the number of visitors rather than the number of visits is used for the analysis of NWRs. A definition for the NWA or the CWS term ‘visitor’ is not available in public documents.

Methodology

As a starting point for the research it was necessary to develop a comprehensive checklist of the types of visitor management policies that are expected to exist in a protected area agency. For the United Nations Year of Ecotourism in 2002, The World Conservation Union, The United Nations Environment Program and the World Tourism Organization cooperated on publishing global guidelines for sustainable tourism in protected areas (Eagles, McCool, and Haynes, 2002). The chapter and section headings of this book were used to create an ‘ideal’ policy framework in the form of a checklist that would serve as a basis for a comprehensive comparison amongst the agencies. This checklist of policy areas can be found in the first column of Table 1. Once this checklist was developed, a search of the Canadian interuniversity library system and the internet
was used to find all applicable policy documents. Content analysis of these documents looked for policies that fit into each of the categories in the policy checklist. Once a relevant policy was found it was recorded and a checkmark placed into Table 1. The policy-by-policy findings enabled conclusions to be drawn regarding the current situation of visitor management policies in the agencies.

This analysis can be described as a public-level policy analysis, which is a review of documents that are relatively widely available to an interested member of the public. It is probable that some other internal and unpublished policy documents exist but were not found by the researchers. It is reasonable to assume that if the researchers could not find the documents after 8 months of work they are not readily available for public use.

This analysis did not assess the level of implementation of each of the documented policies. Such research could be a valuable subsequent project.

Data on visitor use levels and budgets were collected. Data on budgets were translated into US dollars using the average exchange rate for the relevant time period (January 1\textsuperscript{st} – December 31\textsuperscript{st} for individual years, or May 1\textsuperscript{st} – April 30\textsuperscript{th} for fiscal years). The exchange rate on the dollar was 0.66236(CDN):1(US) for the 2000-2001 fiscal year, 0.63724(CDN):1(US) for 2002, and 0.76993(CDN):1(US) for 2004.

**Ideal Visitor Management Policy Framework for Protected Areas**

Table 1 summarizes the publicly available visitor management policy findings for all four agencies. The visitor policy areas in an ideal framework are found in checklist format in the left hand column of Table 1. The research findings for each agency are listed in the four other columns of this table. A checkmark indicates that a policy exists, without giving any indication of
the quality or depth of the policy or its level of implementation. A blank cell indicates that no policy was found for the subject area.

[Insert Table 1 – Visitor Management Policy]

Although some federally-funded studies were published that relate to some of the policy areas listed in Table 1, if no specific course of action was adopted by the agency previous to, or based on, the study then the report was not recognized as a policy document and no checkmark was placed in the appropriate box. For instance, the USFWS produced a report on the economic impacts of NWRs on local communities (Caudill & Henderson, 2005), but since there was no evidence in this or other documents that a nation-wide specific course of action had been adopted previous to, or as a result of, the study, the cell ‘Measurement of Economic Impacts of Visitation’ was left blank.

In the next section of the paper, a detailed analysis of the financial and staffing challenges of each agency is outlined in turn, followed by a brief assessment of how successful each agency is in managing its visitors.

**Canadian National Parks Visitor Management Policy**

According to the Parks Canada Charter, the mandate of the agency is ‘to protect and present nationally significant examples of Canada’s natural and cultural heritage and foster public understanding, appreciation and enjoyment in ways that ensure their ecological and commemorative integrity for present and future generations’ (Parks Canada, 2002). Visitation is encouraged in Canada’s national parks.

Several agency-wide policy documents guide visitor management in Canada’s national parks. At the individual park level, management plans further ‘define the type, character and
locale of visitor facilities, activities and services; and identify target groups’ (Parks Canada, 2003a, Part 2).

As Table 1 demonstrates, 23 of the 30 topics that should be addressed in an ideal policy framework for visitor management were covered in publicly-available documents by Parks Canada. Each of these policies are applicable to all units within the agency. The policy information in Table 1 came from seven separate publicly available sources; six of which were produced by the agency and one produced privately. A policy gap exists for the seven topics that are not addressed. The seven policy gaps include: noise restrictions, restricted items, length of stay, waste management, retail services and concessions, human resources required for visitation, measurement of economic impacts of visitation.

One of the policy areas addressed by Parks Canada at the agency level is the adoption of the visitor management framework, the VAMP (Visitor Activities Management Process) framework (Parks Canada, 2003a, Part 2, Section 4.0) to guide visitor management in national parks. However, a separate analysis of individual national park management plans over the last 5 years found that fewer than half of theses plans implement this agency policy on VAMP. This raises the important issue of a possible lack of implementation of national policy and a lack of monitoring at the park level within Parks Canada, in spite of the existence of policy at the agency level. Therefore, it is important to make a general point that the presence of a nationally-approved and published policy document does not necessarily mean that the associated policies are implemented. The evaluation of the effectiveness of the national visitor management policies is an important area for future research.
Parks Canada - Challenges and Opportunities for Visitor Management

The Parks Canada Agency planned to hire 1,430 full time equivalent staff (FTEs) for visitor services (includes FTEs responsible for townsites and through highways) for the 2004-2005 fiscal year (Parks Canada, 2004a, p.34), with a total estimated visitor services budget of US$104.5 million (Parks Canada, 2004a, p.54). These figures apply to the entire system of protected areas managed by Parks Canada, including national parks and other heritage areas.

By 2004 there were 43 Canadian national parks covering approximately 224,000 square kilometres of land and 149 national historic sites (Parks Canada, 2004a, p.11). Combined, these 192 units cover approximately 245,000 square kilometres of land and water protected by Parks Canada (Parks Canada, 2004a, p.11). Simple calculations suggest that 7.4 FTEs and US$544,164 are available annually per unit for visitor services, and US$426 is available per square kilometre.

It is also useful to compare the total number of visits to the visitor services budget and number of FTEs to gain a sense of the resources available for visitor management. The total yearly number of visits to all protected areas (national parks, national historic sites, and national marine conservation areas) operated by the Parks Canada Agency is 26 million (Parks Canada, 2004a, p.34), resulting in US$4.02 available per visit and 18,182 visits per FTE.

Visitor services account for approximately 33% of the agency’s annual total operating expenditures (Parks Canada, 2004b, p.71). Currently, approximately 25% of the total annual budget for Parks Canada is derived from entry fees (IUCN, 2004, p.5); leading to the observation that increased visitation will result directly in more funding for the Agency. A point may eventually be reached where entry fees alone could be sufficient to fund Parks Canada’s visitor services budget for the year. However, there is no policy statement or guarantee that income from visitor sources will be used for visitor management.
Parks Canada states that visitation is considered an important aspect of management for national parks in Canada. When assessing visitor management, the Parks Canada agency recognizes the following:

‘To ensure their long-term health and sustainability, it is crucial that Canadians know why these heritage places matter…. The more Canadians know about these special places, the more likely they will be to appreciate their significance, become involved in helping preserve them, and support the measures necessary to sustain them’ (Parks Canada, 2003b, p.77).

Visitor numbers and visitors’ satisfaction and understanding of key messages are monitored through visitor surveys by Parks Canada to help understanding of use of heritage places, for research and planning purposes, to determine if visitor needs and expectations are met and if the public understand the messages the agency is communicating, and for human impact studies (Parks Canada, 2005).

Parks Canada measures visitor attitudes through the Visitor Information Program (VIP). The aim of the program is to conduct a survey over a five-year span at 114 of the heritage areas managed by Parks Canada (Parks Canada, 2004b, p.128). The first survey began in 2000. Of the 114 sites, 110 report the number of person-visits, which account for 98% of the visits recorded for national parks and historic sites. At the conclusion of the first five-year period, approximately 75% of the 114 sites will have been covered, which represents 79% of all person-visits to Parks Canada sites. Results are weighted to account for nonresponse bias (Parks Canada, 2004b, p.129). There is no information published describing the methods used to obtain insight from non-visitors. Another monitoring system is in place strictly to count the number of person-visits annually at 125 Parks Canada sites (Parks Canada, 2004b, p.130).
Survey results indicate that 92% of visitors are satisfied with their overall visits to national parks, and at least half are very satisfied. Since the goals of the agency are at least 85% of visitors being satisfied and 50% very satisfied, Parks Canada is successful in meeting its visitor satisfaction goals for national parks. For national historic sites, Parks Canada visitor satisfaction goals are the same as those for national parks. Survey results indicate that the goals are exceeded, with 96% of visitors rating their overall visits as satisfactory, and at least half as very satisfactory. Visitor surveys have yet to be conducted at national marine conservation areas (Parks Canada, 2005).

Visitors are also surveyed about their participation in and satisfaction with learning experiences. For national parks the goal is to have 50% of visitors participate in a natural or cultural learning experience; for national historic sites the goal is 80%. For national parks the target was exceeded with 85% (with 85% satisfied and just under half very satisfied), and for national historic sites the target was also exceeded with 90% of visitors participating. Visitors’ understanding of the significance of national historic sites is lower than the Parks Canada goal of 75%, with only 51% of visitors demonstrating understanding. For national parks, just over 10% of participating national parks met the goal of 75% of visitors understanding the significance of the park (Parks Canada, 2005).

Parks Canada states that it does not have detailed information on specific locations that people visit within its protected areas, or the environmental impact of these visitors. To remedy this knowledge gap a review of human impact indicators was undertaken between 2002 and 2004, with a final framework expected to be finished in 2007, and data from national parks to be obtained by March of 2008. National marine conservation areas will have a similar framework developed between March of 2006 and March of 2008, to be followed by development of a framework for national historic sites between 2008 and 2009 (Parks Canada, 2005).
In addition to visitor numbers and satisfaction, a Public Safety Evaluation is being carried out by Parks Canada through the Occurrence Tracking System. Baseline data were obtained beginning in 2003-2004 through written surveys from 32 field units on the number of various types of incidents reported from the 1998-1999 to 2002-2003 fiscal year (Parks Canada, 2004b, p.131). This program was evaluated in the latter part of the 2003-2004 fiscal year based on a number of criteria, including policy (Parks Canada, 2004b, p.74).

While additional visitor information studies may be conducted by individual parks, information on these studies was not found in any documents that applied to every unit managed by the agency, and is therefore not included in this paper. No information was found regarding any studies on non-visitors.

The Parks Canada Agency appears to be meeting visitor satisfaction goals in both national parks and national historic sites. Goals for visitor participation in learning experiences are also being met, although weaknesses exist when it comes to visitors’ understanding of the significance of the sites they visit. Where visitor information gaps exist, such as human impacts and activities within park boundaries, and public safety, studies are being carried out. Publicly-available information on non-visitors provided by the agency would be useful in demonstrating how the service record of Canada’s national parks could be improved.

**United States National Parks Visitor Management Policy**

According to the NPS (2001), ‘[e]njoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks’ (p.80). Visitation is thus encouraged in US national parks.

A number of policy documents guide the management of national parks in the US. To clarify and simplify the policies contained in the many publications, the NPS compiled all of the
policies in a single document in 1988, with an updated version produced in 2001 (NPS, 2001). This is the major agency-level policy document used by park superintendents and regional directors when creating and updating individual park plans. References to specific pieces of legislation are cited in the document. Park plans and other documents produced by individual parks cover topics such as hours of operation.

Table 1 shows that 26 of the 30 topics that could be addressed through policy in an ideal framework for visitor management are discussed in three publicly-available documents produced by the US National Parks Service. Each of these policies is applicable to all units operated by the agency. A private source contributed additional policy information. The majority of topics found are discussed in detail; however, there are four areas of visitor management that are not addressed, leading to the conclusion that some policy gaps still exist. The policy gaps include: length of stay, human resources required for visitation, marketing and competition for visitation, and measurement of economic impacts of visitation.

**National Park Service - Challenges and Opportunities for Visitor Management**

The NPS operates 388 units within the park system, including 58 national parks (NPS, 2004b), in seven regions of the country (NPS, 2004a). As of 2003, the 388 NPS units covered 341,578 km² (84.4 million acres) of land (NPS, 2003a). For visitor services, the estimated number of full-time equivalent staff (FTEs) for fiscal year 2005 is 4,622 and the estimated budget is US$338.5 million (NPS, 2005a, p.1). These numbers translate into approximately 11.9 FTEs and US$872,304 per unit or US$991 per square kilometre of parkland each year.

The visitor services budget and the number of FTEs when compared to the total number of visits provide a sense of the resources available to manage visitation. The most recent available statistic of the total number of recreation visits to all park units combined is from 2002,
totaling 277 million visits (NPS, 2002). The numbers reveal that there is US$1.22 available annually per visit, and 59,931 visits per FTE.

The NPS’s visitor services budget allocated by the federal government is supplemented by the collection of fees in some parks. Fees are intended to help with overall management and operation of parks, rather than to totally offset operational costs (NPS, 2001, p.86). This system ensures that increased visitation would augment the financial resources available to the park system to manage visitors.

**National Park Service - Assessment of Attainment of Visitor Services Objectives**

The visitor services goals of the NPS are to ensure that visitors are safe and that they are satisfied with park facilities, services, and recreational opportunities, while fostering in park visitors and the general public an appreciation and understanding of the cultural and historical significance of its park areas (NPS, 2005a, p.1).

To assess at the agency level whether or not US national parks’ visitor services objectives are being met, two types of studies are conducted by the Social Science Program of the NPS through the University of Idaho’s Park Studies Unit. The Visitor Services Project conducts in-depth visitor studies at pre-selected national park areas each year, while the Visitor Survey Card annually assesses the satisfaction and understanding of guests at a wider number of parks. Results from these surveys indicate that the 2004 service wide goal of 95% of guests being satisfied or very satisfied overall with their visits (NPS, 2005b, p.25) was met at 96%, while visitor understanding of the parks they visited was at 88% (NPS, 2005, p.4). A 2003 study focused on racial and ethnic patterns in use and non-use of the national park system, in part to gain feedback from non-visitors on barriers to park visitation (Hagen, Ostergren, & Solop, 2003).
No information was found in publicly-available agency-level documents on the methods used to count visits to US national parks. While the counting of visits and other additional visitor information studies are conducted by individual parks, the methods were not found in any documents that applied to every unit of the park system, and therefore is not included in this research.

A comprehensive visitor safety study was conducted for US national parks in 2002 based on four previous NPS reports on visitor safety in the park system. Fifteen major findings are summarized, and 17 recommendations are made. Existing gaps in visitor safety data and knowledge are also identified (Golding & Tuler, 2002).

The NPS appears to be meeting its goals of visitor satisfaction and promoting the understanding of the significance of park areas. Where knowledge gaps exist, such as for visitor safety, these gaps are identified, which is the first step in filling them. A description by the agency of methods used to count visits would be a useful.

**Canada’s National Wildlife Areas Visitor Management Policy**

The CWS is a division of Environment Canada. The official mission of the CWS is to ‘[c]onserve wildlife and the ecosystems of which they are a part, with a particular focus on migratory birds and species at risk’ (CWS, 2000, p.12). Under the Canada Wildlife Act, NWAs may be created for the purposes of conservation, research, and education, with the primary aim to protect critical habitat for migratory birds, and for other wildlife species (Canadian Nature Federation, 2002, p.4). According the Canadian Nature Federation (CNF, now Nature Canada), most NWAs and Migratory Bird Sanctuaries (MBSs) ‘have a low public profile and suffer less from visitor disturbance than do more publicized protected areas like national or provincial parks’ (CNF, 2002, p.18). It appears that visitation is not encouraged at NWAs. Visitors are listed as a
major threat at many Important Bird Areas (IBAs)*, and their regulation is considered to be necessary to properly conserve these sites (CNF, 2002, p.18).

Given the low profile of visitors at NWAs, it is not surprising to find that only six of the 30 topics of visitor management addressed in an ideal framework were found to be covered by four different sources, one of which was produced by the CNF. A large number of policy gaps exist for NWAs in Canada.

**Canadian Wildlife Service - Challenges and Opportunities for Visitor Management**

As of 2002, the CWS managed 49 NWAs and 94 MBSs for a total of 143 sites (CNF, 2002, p.i). The total area covered by these sites is 115,000 km² (28,417,119 acres) broken down into 5,000 km² (1,235,527 acres) for NWAs and 110,000 km² (27,181,592 acres) for MBSs (CNF, 2002, p.2). By 2002, no Marine Wildlife Areas (MWAs) existed, despite the legal authority of the CWS to designate them, due to a lack of funding, a lack of expertise within the organization, and ambiguity over legislative control of MWAs (CNF, 2002, p.8).

Many challenges face the CWS in meeting its objectives. The financial, employee, and equipment resources are not adequate to meet growing conservation challenges and obligations, particularly in the areas of science, policy, and enforcement (CWS, 2000, p.9).

A critical problem facing the CWS in terms of visitor management and related policy is a lack of staff or visitor services at most NWAs and almost all MBSs (CNF, 2002, p.32). Management plans did not exist for 75 of the 87 MBSs as of 2002, which is a major hindrance for the implementation of visitor management. All of the NWAs existing as of 2002 had management plans, but most were dated from the 1980s (CNF, 2002, pp.52-54), so updates or new plans are needed. Many CWS administrative regions are not creating or updating plans due

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* International Bird Areas (IBAs) in Canada are part of a program delivered by the CNF and Bird Studies Canada, where 80 of the 597 sites exist at least partially within NWAs and MBSs (CNF, p.1)
to the impracticality of such an undertaking since the new plans can not be implemented due to insufficient staff and financial resources (CNF, 2002, p.32).

According to unpublished data provided by the CWS head office, gross estimates place visitation at 96,980 visitors annually. For the fiscal year 1999-2000 (the most recent information available), NWAs and MBSs had a total of 14.5 Full Time Equivalent staff members (FTEs) divided between its five regions and headquarters, down from a high of 27 FTEs in 1977. As of 2002, US$1,111,347 was allocated to cover staff, capital, and all operations for the network of NWAs and MBSs; this figure being approximately 2% of the entire CWS budget (CNF, 2002, p.35). A breakdown of the budget and the number of FTEs for visitor services was not available.

The Canadian Nature Federation (2002) asserts that on-site threats to CWS administered sites, including visitor disturbance, could be addressed through ‘effective management plans, increased enforcement of existing regulations, improved regulation of visitors or their activities, and/or enhanced education and community relations, as appropriate at each site’ (p.22). An estimation of the funding required on an annual basis to effectively manage the existing network of NWAs and MBSs, including limited expansion, is US$22,303,400 (CNF, 2002, p.36). As of 2002, this funding was not available.

**Canadian Wildlife Service - Assessment of Attainment of Visitor Services Objectives**

No specific visitor services goals or policies are publicly available for the CWS or for NWAs and MBSs. Additionally, the authors found no CWS or Environment Canada reports focusing on visitation, or statements dedicated to aspects of visitation or visitor management of NWAs and MBSs. A critical lack of visitor management goals and policies, and visitor information appears to exist for the CWS in publicly-available literature.
Even though the CWS has a policy recommending visitor use monitoring, the authors could not find publicly available data coming from such a monitoring system. The visitor use level reported earlier in this paper, the figure of 97,000 visitors, came from a spreadsheet provided personally by a CWS staff member to the authors of this paper. These data are not publicly available.

Some issues pertaining to visitation were raised by the CNF, however. Since the annual budget of the CWS is a ‘mere fraction of what is needed’ (CNF, 2002, p.i) to ensure the ecological integrity of NWAs and MBSs, most sites are not actively managed. Enforcement of wildlife regulations is sporadic, a number of health and safety liabilities exist both for the public and employees, and the ecological integrity of many sites is in jeopardy. Management plans, regulatory enforcement, and habitat enhancement are needed at many sites, and adequate scientific data does not exist for staff to make informed decisions. Buildings, roads, and trails on-site are in a state of degradation, and may be dangerous to users (CNF, 2002, p.i).

It is interesting to note that a lack of overall goals or objectives for visitation is associated with very low budgets. This suggests that the very low public visitation creates a weak political profile that negatively affects government financial allocation.

**United States National Wildlife Refuges Visitor Management Policy**

The US Fish and Wildlife Service (USFWS) is a division of the Department of the Interior. The mission of the NWR System ‘is to administer a national network of lands and waters for the conservation, management and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans’ (USFWS, 2005a). Based on this statement, it is assumed that visitors are welcome at NWRs.
As demonstrated in Table 1, 16 of the 30 topics that should be addressed in an ideal framework for visitor management that is applicable to all NWR units. The existing policy is found in many sources. There are many policy gaps with regards to visitor management in US NWRs.

**US Fish and Wildlife Service - Challenges and Opportunities for Visitor Management**

The US NWR system encompasses 542 units, covering close to 388,498 km² (96 million acres) of land and water (USDOI, 2005a, pp.125), where 36,744,310 recreational visitors were recorded in 2004 (Caudill & Henderson, 2005). For visitor services in 2005, there were 684 FTEs and a budget of US$63,503,000 (USDOI, 2005b, p.140).

These numbers indicate that for visitor services 1.3 FTEs and US$117,164 are available annually per unit, and US$163 is available annually per square kilometre of NWA land. Additionally, US$1.73 is available per visit, and 53,720 visits occur per every one staff member each year. Clearly, employee and financial resources are scarce for NWAs.

**US Fish and Wildlife Service - Assessment of Attainment of Visitor Services Objectives**

General goals for visitation at NWRs include providing quality recreational access consistent with environmental protection, including for example adequate staffing and access to safe facilities, while managing recreation fees in a fair manner (US Department of the Interior (USDOI), 2005b, p.142). Customer feedback is considered vital for improvement at NWRs, where the term customer applies both to visitors and to the general public (USDOI, 2002, p.100).

Many extensive surveys have been conducted on fishing, hunting, and wildlife-associated recreation inside NWRs, including factors such as the number of days visitors participate in each activity, characteristics of participants, reasons why participation was lower the previous year, and expenditures of visitors (USDOI, 2001).
In 2001 the American Customer Satisfaction Index (ACSI), a standardized system for evaluating customer satisfaction across multiple federal government departments, was applied to NWRs. Surveys were conducted randomly over the phone, rather than at NWR sites. Results found that 81% of visitors were satisfied in terms of the ‘perceived quality’ of their visits. For the assistance they received at NWR sites, 88% of visitors were satisfied, while 77% were satisfied with environmental education, and 74% were satisfied with the facility overall. Compared to other federal government departments sitting at an average customer satisfaction rating of 69%, the FWS received a higher score overall with 74%. The study concluded that the FWS was clearly satisfying its visitors, and that no significant weaknesses were apparent (ACSI, 2001, pp.12-15).

Information from the ACSI study was to be used as baseline data to develop customer service-related goals and measures to be included in annual performance plan reports, as well as in longer-term customer service goals for the agency’s strategic plan (USDOI, 2002, p.96).

In July and August of 2002, the FWS conducted its own visitor satisfaction survey through the Division of Visitor Services and Communications of the NWR System, with the goals of establishing a baseline for evaluating visitor satisfaction, and improvement of future visitor experiences. This was to be the first annual visitor satisfaction survey for NWRs (USDOI, 2005c). The 1993 Government Performance and Results Act sets a target of 90% visitor satisfaction at NWRs by 2005, which was the standard used by the study. Forty-five identified high visitation refuges participated in the survey. Results found that the FWS met its goal with just over 90% of visitors satisfied with their experiences, regardless of the activities they participated in within the NWR sites they visited. Respondents were also found to be satisfied with the educational opportunities provided to them at NWRs (Brown & Carpenter, 2002, p.1-2). Visitors’ understanding of the significance of the sites they visited was not included in the
survey. A 2004 survey conducted by the FWS found that visitors’ overall satisfaction was 95%, even higher than in 2002 (USFWS, 2005b, p.1).

A review of the NWR System program was conducted for the preparation of the fiscal year 2005 budget request by the FWS. The system was found to have a clearly articulated purpose, yet lacks sufficient goals and measures to guide its future management and improvement. A plan is currently being developed to implement five strategies to remedy these weaknesses. Through this plan, improvements will be made to visitor services, educational programs, quality of visitor experiences through an increase in signage and staff numbers, safe and accessible facilities, fair fee structuring, and law enforcement which is in part for the protection of visitors (USDOI, 2005a, pp.126-127).

Despite the many studies conducted on visitation in NWRs, the proportion of visitors understanding the significance of the NWR sites they visited was not found to be an aspect of the agency’s major surveys. Additionally, an updated goal (beyond 2005) for visitor satisfaction was not found in publicly-available documents. However, high levels of visitor satisfaction have been consistently documented by the FWS, leading to the conclusion that the agency is not only meeting its goals but is continuously working to improve the visitor experience based on survey feedback. This agency appears to be proactive in developing an understanding of its own policy structure, the gaps and then taking action to fill these gaps.

**Summary**

Table 2 shows a visual ranking of where each organization stands in terms of its publicly-available visitor policy and the resources available to achieve its objectives. The data in the top row in Table 2 are derived from the data in Table 1. The other rows contain data outlined earlier in this paper. The statistics in Table 2 do not take into account the quality of the policies
addressed, for instance a brief mention of visitor education and interpretation programs versus a full description. Table 3 shows a normalized comparison of the statistics presented in Table 2.

[Insert Table 2 – Agency Policy and Annual Resources for Visitor Services]
[Insert Table 3 – Simplified Calculations of Annual Resources Available to Each Agency for Visitor Services]

This study shows dramatic differences between and amongst the four protected area systems (Table 2). The two park systems have more comprehensive and detailed visitor management policies than do to the wildlife area systems. The US National Park system has the most comprehensive and coherent policy structure. These policies are largely found in one major document, providing straightforward access to interested citizens. Conversely, the Canadian Wildlife Service system has a weak and incomplete policy structure. The lack of goals for visitor management in the CWS protected area system reveals a remarkable deficiency for a national land management agency.

The analysis of visitor management policies for the four agencies reveals a positive association was noted between the resources available to the organization (i.e. size of budget and the number of staff available) and the quantity and quality of publicly-available visitor management policy that applies to all units operated by the agency. Where a substantial budget and employee force is available, the quantity and quality of visitor management policy are relatively high. Where the budget and employee force are low, visitor management policy is difficult to locate, and that which exists is generally not as in-depth as that of the organizations with more resources. The NPS is the only agency with a single source containing most of its visitor management policies. The other three agencies have multiple sources, forcing their staff and the public to perform considerable research to gain a basic understanding of the policies.

This analysis can not assess which comes first, the budget, the visitors or the visitor policy. It is likely that the issues of visitor policy, visitation, funding and staff complement are
interrelated in a mutually-supportive fashion, as shown in the policy model of Figure 1. Each supports the other, leading to a stronger and more developed visitor management structure over time.

[Insert Figure 1 – Policy Model]

Clearly, the US NPS has a visitor services budget that is much larger than either Parks Canada or the USFWS, and therefore has substantially more employees. The number of visits to NPS sites is also significantly higher than visits to Parks Canada sites, or visitors to NWRs. However, the total physical area of land and water is highest for NWRs, with the NPS a close second. The number of visitor management policies addressed in publicly-available agency-level documents ranks in the same order as the budgets for each agency, with the NPS highest, Parks Canada in the middle, the USFWS lower and the CWS lowest.

Only five visitor management policies occur for all four agencies: permitted/encouraged visitor use levels, zoning or temporary restrictions, visitor education and interpretation, enforcement of rules and law, and visitor use monitoring. This low level of policy coherence amongst the agencies is largely the result of the absence of many policies from the CWS system.

Three visitor management policies are absent from all the agencies: length of stay, human resources required for visitation, and measurement of economic impact of visitation.

The lack of an agency level policy on the length of stay allowed by visitors is surprising, especially considering the high levels of use of many sites and the need to equitably allocate access. Since this issue is decided by site-level managers, the situation could lead to potentially wide variance in the practices applied in individual units. It reasonable to expect that a national policy should state that this is a field-level responsibility and then provide criteria that direct field managers in their choice of stay length policy.
No agency has a policy relating to human resources required for visitation, such as the number of staff required for education, safety or enforcement purposes. The absence of human resource policy leads one to suspect that government does not wish to be tied to definitive levels and qualifications of staff resources for sites or situations. Eagles et al. (2002) emphasize the importance of human resource planning at both the agency and site level. They state that the staff members are “the most important single factor in ensuring the successful management of tourism in protected areas” (p145).

No agency has a policy outlining ongoing measurement of economic impacts of visitation. While some lengthy studies have been conducted on this topic, the lack of a national policy indicates that none of the agencies sees the need for ongoing economic impact evaluations of visitor management policy and tourism, either at the site level or national level. Thomas (1998) states that economic valuations provide the economic rationale for government funding of protected areas. Thomas (ibid) also provides detailed recommendations for the measurement of economic impacts of visitation and of protected areas.

Strangely, not all agencies publish policies documenting their approach towards the measurement of visitor use levels. Such data are a fundamental element to any understanding of visitor use and its impacts. Where such policies do exist, there appears to be little effort to standardize methods so that such data are easily comparable between and amongst sites and agencies, even though international guidelines are available (Hornback and Eagles, 1999).

It is clear that the resources available to the FWS to manage visitors at NWRs are substantially lower than those available to Parks Canada and the NPS when compared per unit and per square kilometre. However, Parks Canada has more than double the funding per visit (or visitor) than either the FWS or the NPS, and substantially less visits per FTE than either of the
US agencies. The CWS has the lowest funds available per unit and per area. It also has very low visitation per unit.

Our research can not definitively explain the reasons for the differences amongst the visitor policies and resources available to national park, national wildlife area and refuge managers that were found in publicly-available documents; however, some relevant points should be noted. First, according to the CNF, ‘…unlike most other legally protected areas, NWAs and MBSs are designated specifically to protect wildlife of national concern – especially migratory birds’ (2002, p.9), which differs significantly from the national parks agencies in terms of the encouragement of public visitation. This difference is reflected in the fact that ‘…national parks necessarily require more funds than do NWAs or MBSs, in particular to manage visitation activities’ (CNF, 2002, p.11). Although this statement partially explains the low levels of resources available to NWAs as compared to Canadian national parks, it does not explain why US NWRs have substantially lower resources than US national parks, even though visitation is encouraged at both types of protected areas in the USA.

It is important to re-emphasize that this visitor management policy analysis is not comprehensive, since it only examines policy documents that apply to every unit operated by the agencies and are readily available to the public. Therefore, the policy structure presented here reflects the one that is visible to an interested member of the public. This point leads to the issue of the availability of visitor management policy to the public. One could argue that the public, who are the owners and users of national parks, national wildlife areas and refuges, have the right to know the policies that affect their use of these protected areas. If there are important policies that are in place and being used and are not available to the public, then the issue of public access to policy is highlighted.
Concluding Comments

This report finds that the quantity of publicly-available visitor management policy that applies to every unit operated by the agency is higher with higher levels of funding. Additionally, the ability of a protected area organization to meet its visitor satisfaction objectives is not directly associated with the financial and FTE resources allocated for visitor services; however, where no resources are allocated specifically for visitor services, the agency was found to have no clear overall objectives for this area of management.

This research suggests that if the policy gaps discovered in this analysis do exist, then each protected area organization should develop more comprehensive and meaningful public visitation policies, and publish them in widely-available explanatory documents. The US National Park Service approach should be used, that is all major policies in one, publicly-available document. Well thought-out and articulated visitor management policy can complement the conservation objectives of wildlife areas and refuges.

This analysis reveals that the existing policy structure for visitor management in national parks, national wildlife areas and refuges in Canada and the United States is incomplete, when viewed from the perspective of a member of the public. Some important areas of policy concern are either not dealt with, or are considered in fragmented and unwritten fashion. Even in two of the wealthiest countries in the world, with some of the oldest park and reserves systems, there is often a fragmented and incomplete approach to visitor management policies. This research suggests that a more comprehensive approach and a more publicly-accessible format to visitor management policy are needed.
This is the first policy analysis of this type undertaken for these major federal protected area agencies in Canada and the USA. It provides a basis for the revision and improvement of these policies in the future.

Research into the degree of implementation of the stated policies and the level of effectiveness of the policies are reasonable next steps in this strain of policy analysis. Effective policy creation and implementation is one measure of management effectiveness of any agency.
SOURCES CITED


Available on microlog.


2005 Budget Justifications. URL:  


Figure 1: Policy Model

Visitor Policy

Staff Complement

Funding

Visitation
Table 1: Visitor Management Policy

<table>
<thead>
<tr>
<th>Topics Addressed Through Policy in an Ideal Framework for Visitor Management</th>
<th>Parks Canada</th>
<th>U.S. National Park Service</th>
<th>Canadian Wildlife Service (NWAs)</th>
<th>U.S. Fish and Wildlife Service (NWRs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Goals or Objectives of Visitation</td>
<td>✓</td>
<td>✓</td>
<td>✓ 2,20,21,22,23</td>
<td></td>
</tr>
<tr>
<td>2 Visitor Use Plan</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Use of an Established Visitor Management Framework</td>
<td>✓ 13,16</td>
<td>✓ 8</td>
<td>✓ 19</td>
<td></td>
</tr>
<tr>
<td>4 Permitted/Encouraged Visitor Levels and Uses</td>
<td>✓ 12,13</td>
<td>✓ 9</td>
<td>✓ 5</td>
<td>✓ 18,24</td>
</tr>
<tr>
<td>5 Conflict Management</td>
<td>✓ 13</td>
<td>✓ 9</td>
<td>✓ 19</td>
<td></td>
</tr>
<tr>
<td>6 Methods of Transportation</td>
<td>✓ 13</td>
<td>✓ 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Trails and Markings</td>
<td>✓ 13</td>
<td>✓ 9</td>
<td>✓ 19</td>
<td></td>
</tr>
<tr>
<td>8 Noise Restrictions</td>
<td></td>
<td>✓ 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Restricted Items</td>
<td></td>
<td>✓ 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Zoning and Temporary Area Restrictions</td>
<td>✓ 13</td>
<td>✓ 9</td>
<td>✓ 4</td>
<td>✓ 19</td>
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<tr>
<td>11 Accessibility (for the Disabled)</td>
<td>✓ 13</td>
<td>✓ 9</td>
<td>✓ 19</td>
<td></td>
</tr>
<tr>
<td>12 System of Reservation</td>
<td>✓ 14</td>
<td>✓ 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Dates and Hours of Operation</td>
<td>✓ 11</td>
<td>✓ 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Length of Stay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Fees and Pricing</td>
<td>✓ 13,14</td>
<td>✓ 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Visitor Education and Interpretation</td>
<td>✓ 13</td>
<td>✓ 9</td>
<td>✓ 6</td>
<td>✓ 19</td>
</tr>
<tr>
<td>17 Risk Management</td>
<td>✓ 11,13</td>
<td>✓ 9</td>
<td>✓ 19</td>
<td></td>
</tr>
<tr>
<td>18 Emergency Response</td>
<td>✓ 14</td>
<td>✓ 9</td>
<td>✓ 19</td>
<td></td>
</tr>
<tr>
<td>19 Backcountry Trips</td>
<td>✓ 14</td>
<td>✓ 9</td>
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<td>-----------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>20</td>
<td><strong>Enforcement of Rules and Laws</strong></td>
<td>✓</td>
<td>13</td>
<td>✓</td>
</tr>
<tr>
<td>21</td>
<td>Facilities</td>
<td>✓</td>
<td>13</td>
<td>✓</td>
</tr>
<tr>
<td>22</td>
<td>Accommodation</td>
<td>✓</td>
<td>13</td>
<td>✓</td>
</tr>
<tr>
<td>23</td>
<td>Waste Management</td>
<td>✓</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Retail Services and Concessions</td>
<td>✓</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Human Resources Required for Visitation (ex. Number of staff)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Marketing and Competition for Visitation</td>
<td>✓</td>
<td>11, 13, 14</td>
<td>✓</td>
</tr>
<tr>
<td>27</td>
<td>Measurement of Economic Impacts of Visitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Visitor Use Monitoring (numbers and activities)</td>
<td>✓</td>
<td>14</td>
<td>✓</td>
</tr>
<tr>
<td>29</td>
<td>Assessment of Visitor Satisfaction</td>
<td>✓</td>
<td>3, 11</td>
<td>✓</td>
</tr>
<tr>
<td>30</td>
<td>Assessment of Attainment of Objectives</td>
<td>✓</td>
<td>3, 16</td>
<td>✓</td>
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</tbody>
</table>


Table 2: Agency Policy and Annual Resources for Visitor Services

<table>
<thead>
<tr>
<th></th>
<th>Parks Canada</th>
<th>U.S. National Park Service</th>
<th>Canadian Wildlife Service (NWAs)</th>
<th>U.S. Fish and Wildlife Service (NWRs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Visitor Management Policies Addressed (of 30)</td>
<td>23</td>
<td>26</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Number of Units in System</td>
<td>192</td>
<td>388</td>
<td>143</td>
<td>542</td>
</tr>
<tr>
<td>Total Physical Area (km²)</td>
<td>245,000</td>
<td>341,578</td>
<td>115,000</td>
<td>388,498</td>
</tr>
<tr>
<td>Annual Budget - Visitor Services Only (US$ millions)</td>
<td>104.5</td>
<td>338.5</td>
<td>N/A</td>
<td>63.5</td>
</tr>
<tr>
<td>Number of FTEs - Visitor Services Only</td>
<td>1,430</td>
<td>4,622</td>
<td>N/A</td>
<td>684</td>
</tr>
<tr>
<td>Annual Visitation (millions)</td>
<td>26 (visits)</td>
<td>277 (visits)</td>
<td>N/A</td>
<td>37 (visitors)</td>
</tr>
</tbody>
</table>
Table 3: Simplified Calculations for Annual Resources Available for Visitor Services

<table>
<thead>
<tr>
<th></th>
<th>Parks Canada</th>
<th>U.S. National Park Service</th>
<th>Canadian Wildlife Service (NWAs)</th>
<th>U.S. Fish and Wildlife Service (NWRs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of FTEs per Unit</strong></td>
<td>7.4</td>
<td>11.9</td>
<td>N/A</td>
<td>1.3</td>
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<tr>
<td><strong>Funding per Unit (US$)</strong></td>
<td>544,164</td>
<td>872,304</td>
<td>N/A</td>
<td>117,164</td>
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<tr>
<td><strong>Funding per Square Kilometre (US$)</strong></td>
<td>426</td>
<td>991</td>
<td>N/A</td>
<td>163</td>
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<tr>
<td><strong>Funding per Visit/Visitor (US$)</strong></td>
<td>4.02</td>
<td>1.22</td>
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<tr>
<td><strong>Number of Visits/Visitors per FTE</strong></td>
<td>18,182</td>
<td>59,931</td>
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<td>53,720</td>
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