Economic Impacts of the Wisconsin State Park System:

Connections to Gateway Communities

Wisconsin Department of Natural Resources
NOVEMBER, 2013

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The authors extend appreciation to Monticha Rujdiwkal and David Nelson (UW-Madison Graduate Students) for valuable research assistance in conducting this work and to Susan Woitovich for copy-editing and layout of this report. Earlier versions of this manuscript were presented as a Professional Project of the Department of Urban and Regional Planning (UW-Madison) and a keynote presentation to the faculty at North Trondelag University College in Steinkjer, NORWAY. We thank all participants of these presentations for valuable feedback on our approach. Of course, all remaining errors are the sole responsibility of the authors. Further, the views expressed within may not reflect official positions of the Wisconsin Department of Natural Resources.

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Wisconsin Department of Natural Resources Report # PR-487-2013

November, 2013

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Executive Summary

The mechanisms that link state parks and trails to local economic impacts are not well-understood. The applied research reported here addresses several key questions to improve the understanding of how state parks and trails affect local economic conditions within the communities and regions in which these properties are located. The questions to which we seek answer are multi-faceted. How do the state-owned parks, trails, and recreation areas of Wisconsin differ with respect to the outdoor recreation activities of their visitors? To what extent do these differing visitor types spend their trip dollars in the local region around these sites? When matched with visitation levels and activity patterns, how do visitors to state parks and trails contribute to local job creation and income generation within gateway communities across the state? These are the questions that we address in this report.

To answer these questions, The University of Wisconsin – Madison Department of Urban and Regional Planning and the Wisconsin Department of Natural Resources developed activity-based expenditure patterns of visitors to 69 outdoor recreation properties operated by the Wisconsin Bureau of Parks and Recreation (hereafter referred to as the Wisconsin State Park System– or WSPS) using meta-analysis and a Delphi process. The estimates were then annualized and applied to input-output models developed for eight sub-state regions to generate results which speak to local economic impacts.

A quick snapshot of results suggest that:

- The Wisconsin State Park System is comprised of parks, recreation areas, forests, and trails which offer widely varying activities attracting differing types of visitors.
- Further, these outdoor recreation site types are not evenly distributed across the state of Wisconsin.
- Visitors to the Wisconsin State Park System include both day-trippers and overnight guests; their place of origin varies widely but is important in understanding and isolating new money flowing into the gateway communities surrounding these properties.
- On average, individual trip spending of visitors to these state properties ranged from almost $41 per day (State Forests) to over $90 per day (State Trails).
- During the recent past, the entire park system experienced an average annual visitation level of roughly 14 million visitor-days
- Visitors to the Wisconsin State Park System have annual expenditure patterns that, in total, sum to more than 1 billion dollars (2013 USD) per year.
- The vast majority of this WSPS trip spending (almost 70 percent) is done by visitors to State Parks.
- Non-local visitors who are not resident in the region containing these state properties infuse private sector stimulus that drives local economic impacts; in sum, the annual spending of these non-locals is estimated to exceed 580 million dollars.
- The economic impacts of the Wisconsin State Park System vary across the state and depend on property and visitor activity type, visitation levels, and local economic conditions. For this report, these impacts were analyzed by the eight sub-state regions that match the 2005-2010 Wisconsin State Comprehensive Outdoor Recreation Plan (or SCORP).
- When combined, the local economic impacts of this private sector stimulus within these regions accounted for over 8,200 jobs and $350 million in income for residents of the state of Wisconsin.

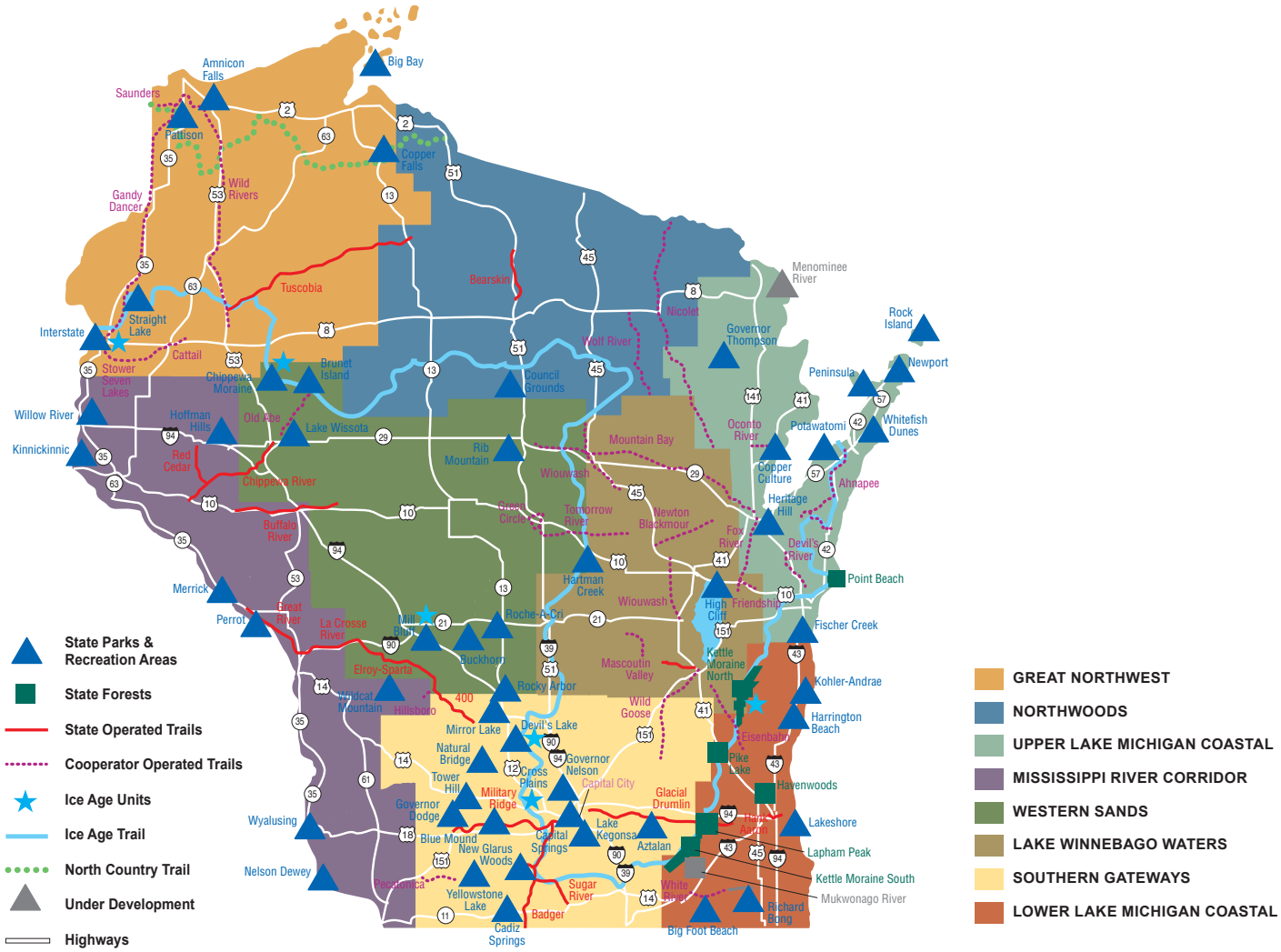
The properties managed by the Wisconsin Department of Natural Resources Bureau of Parks and Recreation serve as important drivers of local economic vitality within gateway communities across the state. Further, these properties are managed to protect and conserve important environmental resources of the state and serve as key Wisconsin legacy areas. As such, the total economic value associated with these non-market goods (e.g. ecosystem function value, option value, existence value, bequest value, etc.) are significant and exist well-beyond the estimates provided by this research.

Introduction and Review of the Literature

Public outdoor recreational sites managed by government agencies (federal, state, and local) are linchpin regional assets to economic vitality. The natural amenity endowments and outdoor recreation opportunities they provide serve as both important sources of economic development (Bergstrom and Cordell 1990; Bergstrom et al. 1990; Reeder and Brown 2005; Green et al. 2005) and key latent factor inputs into regional economic growth and sociodemographic change (Graves 1983; Knapp and Graves 1989; Marcouiller 1998; Power 2005). State-owned properties managed by the Wisconsin Bureau of Parks and Recreation (hereafter referred to as the Wisconsin State Park System – or WSPS for short) found throughout Wisconsin serve as key conduits through which travelers' access important travel motivators (see Figure 1). In this way, the WSPS and other public lands are important drivers of local economic vitality within gateway communities across the state (Howe et al. 1997; Kurtz 2010).

The importance of public outdoor recreation sites to regional economic condition has emerged as a key theme in regional economics research (English et al. 2000; Williams and Shaw 2009; Waltert, et al. 2011). Theoretical concepts associated with amenities are increasingly being supported by empirical evidence associated with these types of amenities. The role of natural resource endowments, environmental condition, and outdoor recreation activities serve to provide underlying economic elements that affect regional characteristics and change. Further, public parks and recreation services play an important role in rural quality-of-life (Schaumleffel and Payne 2010) and local property values (Crompton 2001; 2010).

Figure 1. The Wisconsin State Park System and the Eight SCORP Regions Used in this Assessment



Outdoor recreation on public lands serves as a key motivator for tourism. Indeed, tourists travel to rural regions for much more than great hotels or restaurants. Primary motivators of travel to these regions include unique natural resources and their associated outdoor recreation opportunities. State parks, forests, recreation areas, and trails provide the linkage to these underlying local assets. Lakes, shorelines, forests, topography, unique geology, historic and cultural heritage, and bucolic rural landscapes are driving inputs to the production of the tourism product. A large portion of the overall demand for travel and the tourism product is motivated by natural amenities accessed by recreational sites, often publicly owned and managed.

Outdoor recreation on public lands serves as a key motivator for tourism.

Classic examples abound throughout Wisconsin. For instance, a large portion of travel to and tourism within the Wisconsin Dells is motivated by Devil's Lake, Rocky Arbor, and Mirror Lake State Parks. Important motivators to travel to the Door County peninsula include Peninsula and Newport State Parks. Further, travel to the Apostle Islands National Lakeshore often includes stops to Big Bay, Amnicon Falls and Copper Falls State Parks. Indeed, it is hard to think about tourism in rural Wisconsin that does not have an associated public lands component.

States have been active in documenting economic impacts associated with state-owned lands (c.f. Dougherty 2010; Greenwood and Vick 2008; Marcouiller et al. 2002; New Jersey, State of 2004; TPL 2012). Further, many statewide comprehensive outdoor recreation plans (SCORP), done every five years, contain elements associated with economic effects of state park systems (e.g. Virginia, State of 2007). While most applied research efforts utilize estimates of traveler expenditures, it is important to note that there are broader economic effects associated with public lands that act to support rural economic activity. These involve additional economic effects that are characterized as non-market in nature and can include indirect use (ecosystem services) and non-use (bequest, option, and existence) values.[1] Methods used to evaluate these broader non-market values vary widely but fall within two broad groupings associated with demands that include (1) stated preference approaches (contingent valuation, contingent ranking, etc.) and (2) revealed preference models (hedonic valuation, travel cost, etc.). While a full description of non-market valuation approaches is beyond the scope of this report, there is a wide array of literature available for the interested reader (c.f. Harris 2002; Young 2005 and others). Specific to the economics of outdoor recreation, there are classic treatises that date back to the 1960's (Sielaff 1963; Clawson and Knetsch 1966). More recently, there have been several related books that expand on the topic (Hanley et al. 2003; Tribe, 2005).

While not discounting their overall importance, it is important to note that non-market values associated with public lands suffer from limited linkages into local communities that are proximate to these lands. As such, this discussion reverts back to outdoor recreation and its more direct role in stimulating local economic activity. Perhaps the best and most relevant overview of the role of parks in local economic development has been compiled by John Crompton for the American Planning Association (Crompton 2001). In this very usable report, Crompton outlines four basic roles of parks in economic development. These include (1) enhancing real estate values, (2) attracting tourists, (3) attracting businesses, and (4) attracting retirees. Both attracting tourists and attracting businesses are closely associated with travel-related demand stimulation and its resulting impact on local retail and service sector business activity. While Crompton flushes these out more fully, he further adds a very readable discussion of hedonic values associated with real estate in proximity to parks. In what he refers to as "The Proximate Principle", he brings together an array of literature and concepts that substantiate this important effect of public lands. Finally, Crompton adds an element of retirement migration that gets at local quality-of-life based migration; a key benefit associated with public lands. Indeed, an increasing amount of recent migration literature is suggesting that public lands and associated publicly managed natural amenities are central explanatory factors associated with in-migration to rural regions (Gosnell and Abrams 2005; Chi and Marcouiller 2013).

The applied research reported here addresses several key questions to improve our understanding of how state parks, forests, recreation areas, and trails affect local economic conditions within the communities and regions in which these properties are located. The questions to which we seek answer are multi-faceted. How do the state-owned parks, trails, and recreation areas of Wisconsin differ with respect to the outdoor recreation activities of their visitors? To what extent do these differing visitor types spend their trip dollars in the local region around these sites? When matched with visitation levels and activity patterns, how do visitors to state parks and trails contribute to local job creation and income generation within gateway communities across the state? These are the questions that we address in this report.

1 An excellent example of non-market valuation techniques applied to federal land writ-large that addresses the value of ecosystem services of the USDI FWS National Wildlife Refuge System was recently published by Ingraham and Gilliland Foster (2008). Results of this study suggest that the value of ecosystem services of these lands approaches $27 billion (US) per year.

The overall goal of this project was to more clearly identify and define the role of the Wisconsin State Park System in community development across Wisconsin. Particular focus addresses estimates of jobs and income impacts resulting from trip spending of visitors to the WSPS as felt by residents of cities, villages, and towns that surround these public lands. The objectives of this project are multi-faceted and extend previous research approaches to update and expand upon earlier work on gateway communities in the Lake States. Specifically, objectives included:

- Describe the variation that exists among state parks and trails in Wisconsin with respect to use, travel habits, and spending patterns.
- Estimate the local economic impacts of the WSPS on the development of jobs and income in gateway communities using previously delineated SCORP regions.

This two year project was initiated during the fall of 2011 and is intended to build from previous work from Wisconsin, the surrounding Lake States, and elsewhere.

This report is organized into four subsequent sections. Following this introduction and literature review, a description of the methods and data used to develop estimates of expenditure patterns, their application to park visitation, and economic impact assessment are summarized. Next, results are presented using property types as the defining peer attribute; specifically examining expenditure patterns and annual spending levels for state parks, state recreation areas, state forests (only the Southern Units), and state trails. These are supported by a property level assessment found in Appendices B, C, and D. The next section outlines specific results by each of eight substate regions as defined by the 2005-2010 Wisconsin SCORP. Finally, this report concludes with a summary and discussion of the key public policy implications presented by this type of government activity across the state of Wisconsin.

The overall goal of this project was to more clearly identify and define the role of the Wisconsin State Park System in community development across Wisconsin.

Methods and Data Used

The approach for estimating the economic impacts of the Wisconsin State Park System relied on multiple and stepwise methods. A meta-analysis of existing recent and relevant studies was compiled with a particular focus on surveys that collected expenditure pattern data specific to outdoor recreation activities that are common within the Lake States region. The subset of survey-based studies used in this analysis is summarized by activity in Table 1. Further, all expenditure patterns were normalized to represent 2013 dollars on an individual daily basis.

A variety of data elements provided by the Wisconsin Department of Natural Resources were also used. Visitation levels for all 69 properties for 2005 through 2012 were averaged to address recent visitation levels. Further, estimates of visitor origin, primary recreational activity, and donations of time, goods, and money were provided by park managers using an expert-panel, or Delphi process (see Appendix A for specific instruments used in the Delphi). The target group of experts included park superintendents and managers for all 69 properties in the Wisconsin State Park System.

With this data in place, park-level visitor expenditures were obtained using the following procedure (equation 1):

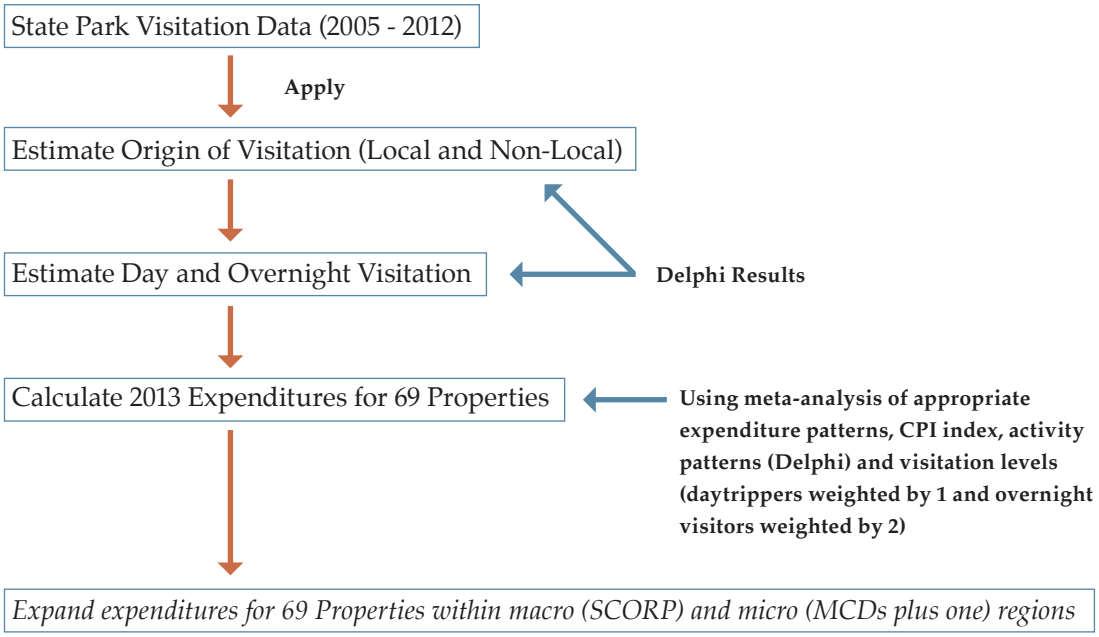
$$\text{Total Visitor Expenditures} = \left(\sum_{a=1}^{n} (E_a p_a)\right) * V_0$$

Where *a* is the relevant park/trail activity type, *E* is the expenditure by activity (using meta-analysis), *p* is the proportion of *n* most common activity types by property (from Delphi responses; sums to 1.0), *V* represents individual daily property visits (obtained from WDNR Bureau of Parks and Recreation) and *o* is the origin by visitation type (local, non-local distinctions by property from Delphi responses).

In essence, the stepwise procedure shown in Figure 2 describes the process used in this study.

Once estimates by park or trail property were developed (see appendices B, C, and D), these were then aggregated to the eight SCORP regions which are shown in Figure 1.[2] Visitation to

Figure 2. Approach used to estimate expenditures of visitors to the Wisconsin State Park System



2 In this report, we develop property level estimates and aggregate to a regional focus referred to as the "macro" region; namely to the eight 2005-2010 SCORP regions that are built from county boundaries. In our data collection and analysis, we have also developed estimates of local and non-local spending based upon what we refer to as a "micro" region; or the minor civil divisions (MCDs) in which the property is located plus one neighboring MCD. These "micro" results are intended for use in further research using MCD level spatial models to assess the role of land ownership and housing characteristics on regional socio-demographic and economic change.

properties located on the region borders (thus falling into more than one region), were allocated to regions based upon a proportion of acres within each region. The non-local portion for these eight regions was then applied as the exogenous shock to county-level input-output models.

These input-output models were constructed to develop estimates of regional economic impacts using an export-based and demand driven approach. A more fully developed description of input-output analysis can be found in core community economics texts (e.g. Shaffer et al. 2004). Our input-output models were developed using IMPLAN3 software and 2009 county-level datasets; all adjusted to reflect regional economic characteristics in 2013.

Table 1. Studies Used to Normalize Activity Based Expenditure Patterns

Recreation Activity	Reference (complete citation found in "Literature Cited" section)
ATV Riding	Carper, et al 2013; Hamilton 2004
Birding	Pullis LaRouche 2001
Bicycling	Venegas 2009; Kazmierski et al. 2009; Schwecke et al. 1989
Boating	Murray 2011; Murray 2012; Mahoney and Stynes 2004; Connelly et al. 2004; GLC 2003
Camping	Nelson et al. 1996; Stynes and White 2005
Cross-Country Skiing	Venegas 2009; Berard et al. 2013
Fishing	USDI et al. 2011; Stynes and White 2005
Hiking	Venegas 2009
Horseback Riding	Venegas 2009; Hass et al. 2006; PriceWaterhouseCoopers 2004
Hunting	USDI et al. 2011; Stynes and White 2005
Running	Venegas 2009
Downhill Skiing	Stynes and White 2005; Reich 2012; Gray et al. 1989; NSAA 2011
Scenic Auto Touring	Stynes and White 2005; Petraglia et al. 2001; Worksheet for Petraglia et al. 2001
Snowmobiling	Venegas 2009; Carper et al. 2013
Wildlife Watching	USDI et al. 2011; Stynes and White 2005

Results

The estimates of visitor spending were primarily driven by two key elements; property level visitation and outdoor recreation activity. The former element is necessary in capturing differing use pressures and visitor characteristics by property. The latter element captures unique attributes of park and trail usage, namely primary outdoor recreation activities partaken on location, that again, varied by property.

Visitor Expenditure Patterns by Property Type

The meta-analysis of previous research organized existing studies for use in this exercise of differentiating expenditure patterns by type of activity. Using characteristics of users from existing studies, expenditure patterns were analyzed according to activity type. Values were normalized in previous studies to individual daily estimates in 2013 US Dollars. The average expenditure patterns by activity are outlined in Table 2.

Note from this table that wide variation exists in the extent of individual daily expenditures by activity type. Note also that expenditure patterns also vary widely by activity type. For instance, note that wildlife watchers have characteristically high levels of trip-related equipment purchases while motorized users have characteristically high levels of spending on gasoline. Given our emphasis on trip-related spending, we cleaned expenditure patterns of more durable equipment purchases not normally associated with trips. This could include recreational equipment such as snowmobiles, boats, and durable recreational equipment (downhill skis, guns, etc.). Given restrictions on WSPS properties, purchases of wildlife feed, bird houses, and other non-trip related spending was removed. This was done with the specific intent to focus on trip-related spending of visitors to the WSPS; excluding items normally brought along with visitors and not purchased during the trip itself; but purchased elsewhere.

These activity-based expenditure patterns were then applied to the Delphi results from each property that specified the top five outdoor recreation activities taking place at the property itself. All activities by property were controlled to sum to 100 percent. An ad-hoc approach that initially relied on the top five

Table 2. Average Trip-Related Expenditure Pattern by State Park and Trail Activity (Meta-analysis equalized to 2013 USD individual daily expenditure by sector)

	Spending Category									
Activity	Overnight Accommodation	Restaurants & Bars	Gasoline & Auto	Groceries & Liquor	Entertainment	Misc. Retail	Admissions/ Fees /Licenses	Equipment Rental & Repair	Equipment Purchase	Total
Running, Jogging	$8.32	$3.74	$1.92	$2.43	$0.45	$1.59	$0.62	na	$0.25	$19.31
Hiking, Walking, Geocaching	$13.05	$4.99	$3.01	$3.01	$0.91	$2.10	$1.04	na	$0.65	$28.75
Birding, Naturalist PGM, Siteseeing	$5.27	$7.54	$7.04	$0.10	na	na	$0.31	$0.39	$10.78	$31.42
Horseback Riding	$4.26	$4.89	$11.51	$6.93	$1.75	$4.04	$1.11	$0.11	$0.09	$34.70
Camping, Picnicking, Swimming	$3.08	$5.91	$9.64	$12.59	$1.80	$3.25	$3.83	na	$1.08	$41.19
Cross-Country Skiing	$29.17	$9.55	$4.73	$4.31	$0.63	$2.27	$1.97	$0.57	$1.02	$54.21
Scenic Auto Touring	$2.15	$16.84	$15.17	$7.96	$10.57	$4.92	$1.64	na	na	$59.25
Fishing	$9.72	$10.21	$15.44	$9.97	$2.12	$4.12	$2.13	$3.36	$4.94	$62.03
Hunting	$5.61	$12.08	$24.15	$11.18	$1.32	na	$3.48	$0.61	$18.52	$76.97
Bicycling	$9.92	$13.96	$10.35	$11.02	$2.92	$4.07	$0.47	$0.08	$32.43	$85.22
Boating, Canoeing	$7.47	$14.38	$26.98	$13.33	$2.74	$2.53	$4.02	$4.63	$9.52	$85.60
Downhill Skiing	$26.94	$24.81	$15.64	$6.60	$12.77	$5.11	$6.04	$0.74	$3.96	$112.62
Snowmobiling	$46.76	$59.22	$38.25	$13.97	$1.02	$22.50	na	$14.26	na	$195.97
ATV Riding	$44.44	$47.70	$46.93	$16.12	$18.68	$18.35	na	$6.89	na	$199.11
Wildlife Watching	$38.17	$21.95	$69.21	$2.96	na	na	$2.56	$33.39	$99.63	$267.87

na = not applicable

activities and specified the percentage breakdown of 30, 25, 20, 15, and 10 percent (sums to 100 percent) was used for each WSPS property. While this approach developed initial approximations of total expenditure patterns, several panel discussions to ground-truth both patterns of visitation and expenditure levels based on better expert knowledge provided more realistic outcomes for certain outlier properties. This provided the final set of expenditure patterns by property. Disaggregated results for each property are found in the Appendix. These property-level estimates were then aggregated to our property peer groups (parks, recreation areas, forests, and trails). A summary of average sector-specific individual daily expenditures by property type is found in Table 3.

Note from this table that, on average, visitors to State Trails had activities that reflected generally higher individual daily expenditures when compared to the activity sets of visitors to State Parks, State Recreation Areas, or Southern State Forests managed by the Bureau of Parks and Recreation. Further, the patterns of these expenditures differed among the property types; again, based on the activity sets of visitors by property type. Also, note that these are average for all visitors by property type and that distinction is made for origin of visitors (local and non-local) and their respective spending patterns from previous research.

Visitation levels by property (found in Appendix B) were then parsed with origin of visitor and daytrip/overnight guest specification from the Delphi process. When expanded, property level estimates of local and non-local spending (found in Appendix C) were then aggregated to property type. A summary of this expansion by property type is found in Table 4.

Note from this table that for all WSPS visitors on a total of 69 properties, expansion led to an estimate of over $1 billion USD (2013) of annual visitor spending. Based on Delphi results of activity type and visitation characteristics then expanded through application of expenditure patterns, results suggest that non-local visitor spending accounted for roughly 57 percent of this total spending, or roughly $580 million USD. Also, the majority (almost 70 percent) of total spending took place within the 45 State Parks throughout the state of Wisconsin.

Table 3. Average Sector-Specific Individual Visitor Day Expenditure Patterns by Property Type (in 2013 USD)

	Sector-Specific Pattern of Individual Daily Visitor Expenditure									
	Accommodations	Restaurants & Bars	Gasoline & Auto	Groceries & Liquor	Entertainment	Misc. Retail	Fees & Licenses	Equipment Rental	Equipment Purchase	Total
State Park	$8.72	$9.14	$11.42	$7.91	$2.35	$2.82	$2.29	$1.24	$4.61	$50.50
State Rec Area	$13.28	$11.37	$15.53	$6.12	$2.51	$2.60	$1.74	$2.89	$11.38	$67.41
Southern State Forest	$10.37	$7.57	$7.52	$5.46	$1.64	$2.32	$1.59	$0.51	$3.96	$40.95
State Trail	$20.20	$21.55	$16.18	$8.35	$2.69	$7.55	$0.69	$3.45	$9.79	$90.44

Table 4. Summary of State Properties, Visitor Spending, and Percentage of Total Visitor Spending by Property Type

Property Type	Number of Properties	Visitor Spending			
		Non-Local Spending	Local Spending	Total Spending	Percent of Total Spending*
State Park	45	$439,443,000	$256,726,000	$696,169,000	68.9%
State Recreational Area	4	$34,454,000	$35,110,000	$69,564,000	6.9%
Southern State Forest	6	$65,094,000	$75,356,000	$140,450,000	13.9%
State Operated Trails	14	$40,582,000	$63,813,000	$104,395,000	10.3%
Total All Properties*	**69**	**$579,573,000***	**$431,005,000***	**$1,010,578,000***	**100.0%**

* May not sum to totals due to rounding.

Expenditures and Economic Impacts of the WSPS

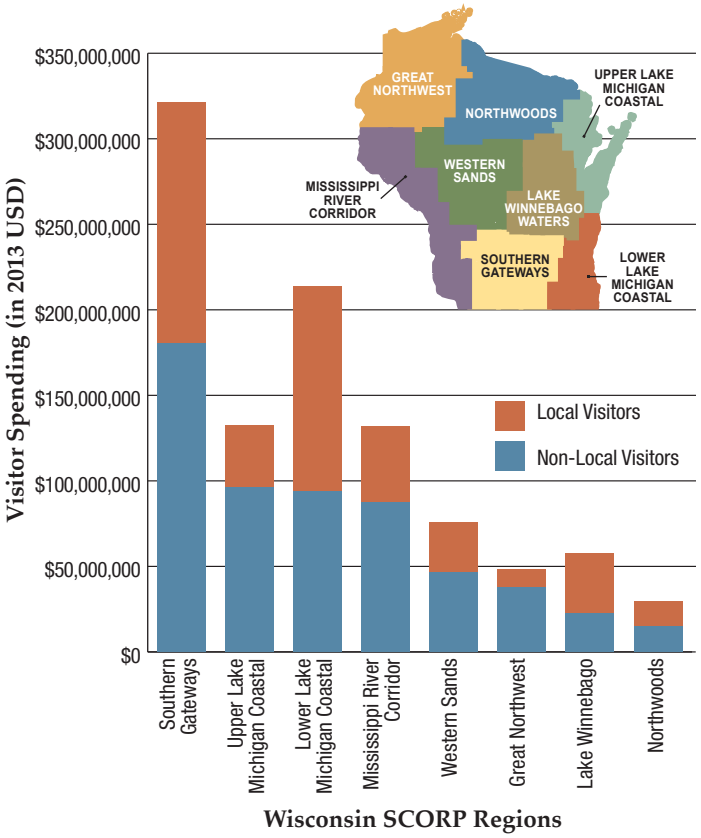
Certainly, locations of the WSPS properties are not evenly distributed throughout the state. Nor are visitation levels of individual properties. Thus, a sub-state regional assessment that accounts for spatial location of state properties is required. For this work these regional delineations used were from the 2005-2010 Wisconsin Statewide Comprehensive Outdoor Recreation Plan (State of Wisconsin 2006). There are several properties of the WSPS that are located on the boundaries of these regions. Care was taken to allocate total property results to each region based on acreage; thus, there is no double-counting of expenditures.

Overall levels of visitor spending vary widely depending on where in Wisconsin you are examining. Further, regions that have high levels of urban population tend to have higher levels of local spending (e.g. regions that encompass the Milwaukee metropolitan area, Madison, and the Fox Valley) reflective of the visitation patterns of properties located in close proximity. A summary of visitor expenditures for trips to the WSPS by the eight SCORP regions is outlined in Figure 3.

Note from this figure that regions are ranked by the level of non-local visitor spending. To reiterate, it is important to focus on non-local visitor spending because it represents outside private sector stimulus to the region that can be attributed to a primary motivator for travel; the Wisconsin State Park System. The approach in estimating the economic impacts of the WSPS follows the work of others in a straightforward fashion. Visitors from outside the area spend money inside the area impacting local businesses in a manner that would not occur if they did not visit. Local residents who recreate will spend money in the locality regardless of whether or not they recreate. It is recognized that local resident spending is just as important as non-resident recreational visitor spending to local businesses. However for economic impact analysis, a non-resident buying a gallon of milk represents new money to the region, hence is considered economic impact while a local resident buying the same gallon of milk is recirculated currency and not considered economic impact. Thus, to estimate the economic impacts associated with the WSPS, we use only non-local visitor spending. This non-local visitor spending represents the stimulus, or direct impact as tracked using input-output analysis.

"...visitors to Devils Lake State Park spend roughly $120 million annually on their trips to the property."

Figure 3. Visitor Expenditures for Trips to the Wisconsin State Park System by Region



The regional extent of visitor spending depends on the number and size of WSPS properties in the region and the notoriety (and hence visitation) of the property itself. Note from this figure that the largest proportion of regional visitor spending for trips to the WSPS occur in the Southern Gateways region. In addition to proximity to Chicago, the Southern Gateways is the location of the most visited property in the WSPS, Devils Lake State Park. With over 1.8 million visitors (roughly 13 percent of the entire WSPS visits), visitors to Devils Lake State Park spend roughly $120 million annually on their trips to the property. Another notable message from Figure 3 includes the large amount of local spending (56 percent of total) taking place in the Lower Lake Michigan Coastal region, which includes the Milwaukee metropolitan area.

The economic structure of a region is a key determinant in the extent to which economic impacts are felt locally. Rural regions with smaller sized community populations tend to have relatively few local retail and service businesses in which WSPS visitors can spend their money when compared to larger community economies like Madison or Milwaukee. While specific community impacts and their relative differences are important, the ability to estimate regional economic impacts remains at eight sub-state Wisconsin regions as identified in the 2005-2010 Wisconsin SCORP. It is important to further point out that

these eight regions are very different in terms of population, economic size, and economic diversity. Rural counties tend to have fewer local linkages for intermediate purchased inputs, or those items needed to produce the items that are sold locally. Larger cities such as Madison, Wisconsin, Minneapolis, Minnesota, and Chicago, Illinois tend to have considerably more robust and diverse economies with a much broader array of local retail and service businesses and a commensurately higher amount of locally available intermediate purchased inputs. In general, smaller and less diverse regional economies have relatively more leakages to the outside for the items sold by local retail and service businesses. Conversely, larger, more diverse regional economies have fewer leakages and tend to be more self-contained. Hence, multiplier impacts tend to be larger as the economic structure of a regional economy grows.

Regional input-output analysis generates results that can be presented in various ways. To reflect regional economic differences, one illustrative presentation that reflects underlying regional economic structure is found in Table 5. Here, results of each region's input-output multipliers for four different economic characteristics (employment, employee compensation or labor income, total value added, and output) are presented. Overall, the region-specific output multiplier represented by these results (reported in Table 5) range from 1.42 to 1.90 which are modest and reflective of each region's relative economic structure. To state again, the extent of multiplier impacts result from the relative diversity of each regions' economic structure. Overall, across the state these results are reasonable given the relative size of the each region's economy with the Northwoods region reflective of the most rural and the Lower Lake Michigan Coastal (including Milwaukee) as being the most urban and diverse. The simple fact remains that there exists relatively more regional leakage in rural areas than areas with large urban populations.

Table 5. Total Input-Output Multipliers by Economic Characteristic Calculated from Each Region's Model Results

	Total Input-Output Multiplier			
SCORP Region	Employment	Labor Income	Total Value Added	Output
Great Northwest	1.25	1.42	1.48	1.46
Northwoods	1.24	1.40	1.46	1.42
Upper Lake Michigan	1.34	1.65	1.70	1.65
Lake Winnebago Waters	1.31	1.59	1.66	1.63
Western Sands	1.27	1.49	1.56	1.52
Mississippi River Corridor	1.26	1.47	1.54	1.49
Southern Gateways	1.36	1.63	1.76	1.70
Lower Lake Michigan	1.49	1.84	1.93	1.90
Average Among Regions	**1.34**	**1.62**	**1.70**	**1.65**

(Source: Author's calculation based on IMPLAN 3.0 model results for eight sub-state Wisconsin regions.)

When applying non-local visitor expenditures to an input-output model of each respective regional economy, the multiplier effect of inter-industry purchases generates indirect impacts and the increased income of households drives induced impacts.

A quick note on the difference between output and income (in aggregate, also known as value added). Output (sometimes referred to as industry sales) is the total result of all economic activity and is analogous to gross regional product, gross state product, and gross national product. In other words, it is the total accounting for all regional production; a portion of which can be considered "income." Income, or value added, is defined as the value of the region's business output minus the value of all inputs purchased from other firms. It is therefore analogous to the "profit" or income generated locally. Value added includes a combination of employee compensation, proprietor's income ("business profit"), other property type income, and indirect business taxes paid to governments. The local economic impact of non-local spending by visitors to the WSPS by these economic characteristics is outlined in Table 6. Note that this is simply the sum of all regional impacts. Impact reports for each region are contained with the regional summaries. Impact results for other forms of income and in alternative levels of disaggregation can be obtained from the authors.

Table 6. Sum of Economic Impact Results for Eight SCORP Regions by Economic Characteristic and Type of Impact

	Economic Characteristic			
Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	6,169	$136,421,986	$205,645,322	$378,954,686
Indirect Effect	926	$40,353,316	$66,468,954	$119,469,682
Induced Effect	1,156	$43,602,047	$77,954,158	$128,433,000
Total Effect	**8,251**	**$220,377,350**	**$350,068,434**	**$626,857,368**

(Source: Author's calculations using IMPLAN 3.0 model results.)

Also, it is important to note that the stimulating effects of non-local spending of visitors to the WSPS (roughly $580 million 2013 USD) were only partially felt within the region. This is due to retail margining that takes place in businesses in which visitors spend money. In essence a significant portion of gross receipts taken in by local retailers goes to pay for the wholesale costs of goods and services purchased by visitors. For instance, gas stations (an important recipient of non-local visitor spending) have relatively low retail margins; often roughly 6 percent for retail gasoline sales. Except for this retail margin, the remainder flows back out of the region being assessed; particularly if that region does not contain suppliers of the good or service being sold (e.g. oil producers, refiners of oil into gas, and wholesalers/distributors of gasoline). Thus, the regional models created for this project used the initial $580 million USD (2013)

of nonlocal spending to retail and service sector businesses, applied appropriate retail margins to those sectors affected by such margining, and accounted for a net total local direct effect of roughly $380 million (2013 USD).[3] In essence, roughly $200 million (2013 USD) of the initial spending of non-local visitors to the WSPS went straight back out of the region as the wholesale cost of providing the goods and services purchased.

For purposes of defining results of the economic impacts associated with visitor expenditures of the WSPS, we turn our attention to regional descriptions. Again, these regions reflect a useful regionalization scheme developed initially for outdoor recreation planning at the state level. For our purposes, they also reflect relatively homogeneous regions for describing regional natural amenity endowments, outdoor recreation assets, and regional socio-demographic and economic characteristics.

3 This is reflected in Table 6 in the results for output and direct effect.

Expenditures and Economic Impacts of the Wisconsin State Parks System by Region

Physical environment is obviously an important factor in determining which activities are popular within a given state park property. These physical environments tend to cluster within certain regions of the state. For example the Mississippi River and Lake Michigan both offer excellent fishing, swimming and boating opportunities. The 2005-2010 Wisconsin SCORP divided the state into eight ecotourism regions. These regions: The Great Northwest, Northwoods, Upper Lake Michigan Coastal, Lower Lake Michigan Coastal, Southern Gateways, Mississippi River, Western Sands, and Lake Winnebago Waters are areas of the state of roughly the same geographic size that represent different demographic trends, tourism influence and environmental types. Together, these influences shape each regional recreational profile and resulting economic impact.

Many state park properties are a key component to the eco and regional tourism concept. This form of tourism simultaneously involves local travel demand stimulation and environmental sensitivity. This latter element combines both responsible recreational use of natural resources with protection of the underlying geologic and natural ecosystem being used for tourism. Economically it serves as a source of capital and employment for the local populations and is a revenue generator for both government and private participants.

The Great Northwest Region

The Great Northwest Region is located in the northwestern part of the state and encompasses Douglas, Bayfield, Ashland, Burnett, Washburn, Sawyer, Polk, Barron, and Rusk Counties. This region contains roughly 9,400 square miles and 3,700 lakes. The region as a whole has an abundance of natural resources such as Lake Superior, the Namekagon River, the St. Croix River, and the Chequamegon National Forest. There are also an abundance of public lands that are managed by federal, state and county government agencies. Because of these resources, several counties within the region are considered Non-Metro Recreation Counties - areas that offer an exceptional amount of outdoor recreation opportunities.

Not surprisingly, tourism is a large and growing industry within the region. Visitors from the Twin Cities and surrounding suburban areas, as well as visitors from within Wisconsin, are placing increasing pressure on the region's recreational resources. This also includes the State Parks of Amnion Falls, Big Bay, Copper Falls, Interstate, and Pattison and the Western part of the Tuscobia State Trail. As highlighted in the 2005-10 SCORP, recreation demand from both local and non-local visitors is focused upon fishing, swimming, hunting and snowmobiling. In fact, fishing is a prime activity for both local and non-visitors to this region,

When visiting these properties, the largest trip related expenditures are transportation and groceries and liquor. These types of expenditures reflect the influence of non-local visitors to these properties that are extended stay destinations for most users. The influence of both the Minneapolis, Minnesota and Chicago Illinois Direct Marketing Areas has a large influence on this region.

The Great Northwest experiences positive economic impacts from WSPS visitation. It is characteristically rural with a resident population of 229,000. In 2009, total regional employment was 113,000 jobs generating total personal income of about $6.8 billion. Non-local visitors to the Wisconsin Park System accounts for 506 of these jobs generating over $33 million in wages that are centered among the top employment sectors of the regional economy that include state and local government, food services and drinking places, private hospitals, and retail stores (general merchandise).

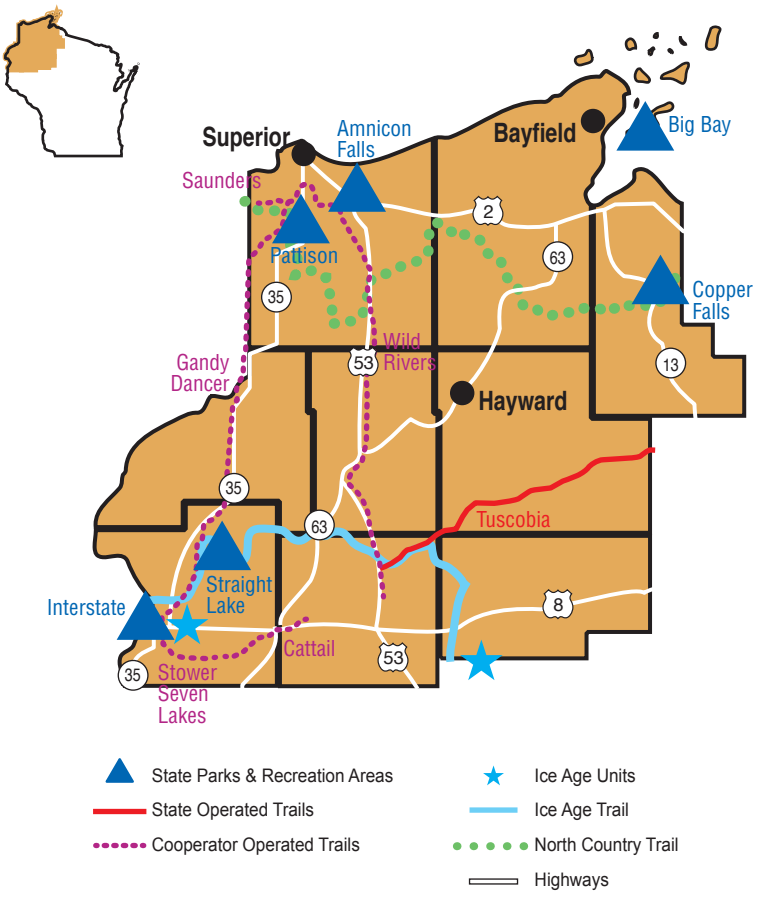


Table 7. Trip-Related Visitor Expenditures to the Six WSPS Properties Located in the Great Northwest Region by Origin of Visitor (in 2013 USD)

Visitor Expenditure Category	Non-Local Visitors	Local Visitors
Lodging, Including Camping	$7,764,769	$1,543,089
Restaurants and Bars	$6,278,270	$1,898,194
Gasoline and Automobile Service	$8,280,874	$2,026,110
Groceries and Liquor	$8,072,902	$2,095,417
Entertainment	$2,181,435	$354,007
Other Retail Purchases, Including Souvenirs	$2,981,312	$583,784
Admissions/Fees/Licenses	$1,492,978	$1,052,819
Equipment Rental and Repair	$264,589	$110,609
Equipment Purchase	$101,492	$978,395
Total	**$37,418,621**	**$10,642,423**

Table 8. Great Northwest - Annual (2013) Economic Impact of Non-Local Visitors to the Wisconsin State Park System (employment in total number of jobs, income and output in 2013 USD)

	Economic Characteristic			
Impact Type	Employ-ment	Labor Income	Total Value Added	Output
Direct Effect	406.2	$8,175,000	$12,357,000	$23,060,000
Indirect Effect	44.4	$1,626,000	$2,638,000	$5,111,000
Induced Effect	56.0	$1,804,000	$3,237,000	$5,490,000
Total Effect	**506.6**	**$11,604,000**	**$18,232,000**	**$33,661,000**

(Source: MicroIMPLAN v3.0.17.2 model of 9 Northwestern Wisconsin Counties including Douglas, Bayfield, Ashland, Burnett, Washburn, Sawyer, Polk, Barron, and Rusk based on exogenous demand shock of 6 WSPS properties.)

A visitor to Copper Falls State Park spends almost $37 a day on their trip away from home.

The Northwoods Region

The Northwoods Region is located in the north-central part of the state and includes Florence, Forest, Iron, Langlade, Lincoln, Oneida, Price, Taylor, and Vilas Counties. It comprises roughly 8,200 square miles and contains 5,820 lakes. Like the Great Northwest Region, many of these counties are considered Non-Metro Recreation Counties due to the abundant natural and recreational resources they offer. In the Northwoods Region, these resources include the Northern Highland American Legion State Forest, the Nicolet National Forest, the Peshtigo River, the Wolf River, and the Bearskin State Trail. With its numerous high quality lakes and rivers, the region supports a large number of water-based recreation opportunities. Tourism is an important—and growing—source of business receipts in the region as increasing numbers of visitors from Milwaukee, Madison, and Chicago travel to enjoy the Northwoods natural environment.

There are three WSPS properties in the Northwoods region, these are the Bearskin-Hiawatha and Eastern parts of the Tuscobia State Trails and Council Grounds State Park.

When visiting these properties, the largest trip related expenditures of visitors are restaurants and transportation. This is the only region within the state that is split evenly between local and non- local expenditures. This could reflect the wide variety of other public lands in this region (USDA Forest Service, Northern Highlands - American Legion State Forest, and others) that serve as attractants for non-local visitors.

The Northwoods experiences positive economic impacts from WSPS visitation. It is characteristically rural with a resident population of 160,511. In 2009, total regional employment was 87,108 jobs generating total personal income of about $5 billion. Non-local visitors to the Wisconsin Park System accounts for 219 of these jobs generating over $13 million in wages that are centered among the top employment sectors of the regional economy that include state and local government, food services and drinking places, private hospitals, non-residential construction, retail stores (food and beverage), and wholesale trade businesses.

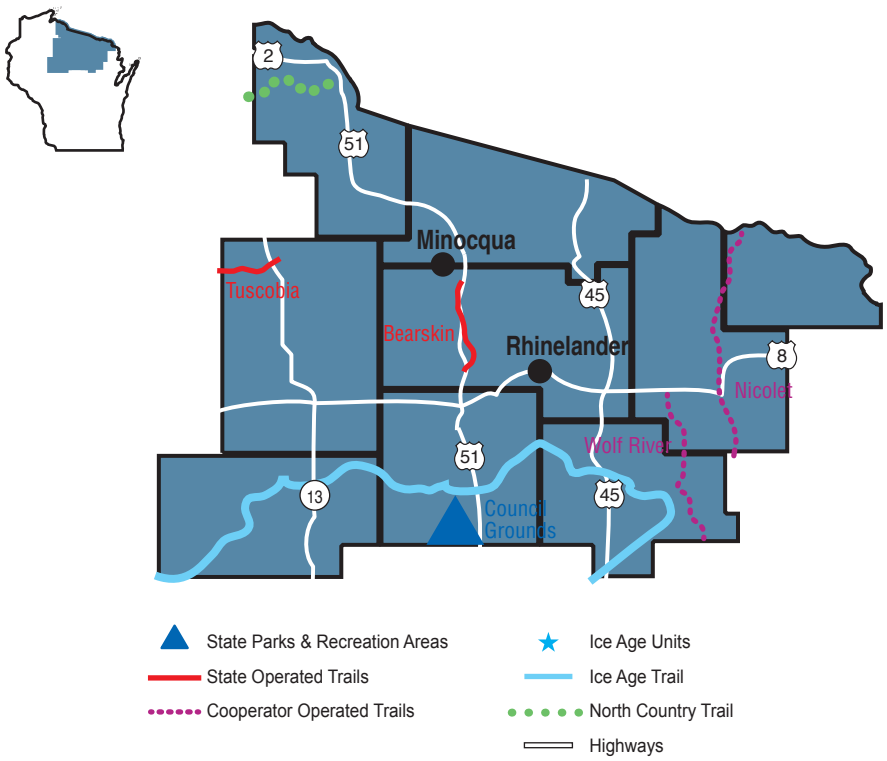


Table 9. Trip-Related Visitor Expenditures to the Three WSPS Properties Located in the Northwoods Region by Origin of Visitor (in 2013 USD)

Visitor Expenditure Category	Non-Local Visitors	Local Visitors
Lodging, Including Camping	$3,539,660	$1,600,470
Restaurants and Bars	$3,215,815	$2,499,340
Gasoline and Automobile Service	$3,504,144	$2,871,218
Groceries and Liquor	$2,115,888	$2,001,952
Entertainment	$486,085	$225,971
Other Retail Purchases, Including Souvenirs	$1,181,974	$609,683
Admissions/Fees/Licenses	$289,538	$843,009
Equipment Rental and Repair	$497,179	$707,473
Equipment Purchase	$114,584	$3,363,334
Total	**$14,944,867**	**$14,722,449**

Table 10. Northwoods - Annual (2013) Economic Impact of Non-Local Visitors to the Wisconsin State Park System (employment in total number of jobs, income and output in 2013 USD)

	Economic Characteristic			
Impact Type	Employ-ment	Labor Income	Total Value Added	Output
Direct Effect	176.7	$3,394,000	$5,127,000	$9,788,000
Indirect Effect	20.1	$683,000	$1,077,000	$2,043,000
Induced Effect	22.2	$689,000	$1,259,000	$2,097,000
Total Effect	**219.0**	**$4,766,000**	**$7,463,000**	**$13,928,000**

(Source: MicroIMPLAN v3.0.17.2 model of 9 Northwestern Wisconsin Counties including Iron, Vilas, Forest, Florence, Price, Oneida, Taylor, Lincoln, and Langlade based on exogenous demand shock of 3 WSPS properties.)

Council Grounds State Park and the City of Merrill Wisconsin both share Wisconsin River frontage.

The Upper Lake Michigan Coastal Region

The Upper Lake Michigan Coastal Region is located in the northeast part of the state and encompasses Brown, Door, Kewaunee, Manitowoc, Marinette, and Oconto Counties. This region contains roughly 4,300 square miles. The region as a whole is heavily influenced by its association with Lake Michigan, with each of the region's six counties containing some portion of the lake's shoreline. This is highlighted by Door County, which contains over 250 miles of picturesque shoreline (more than any other county in the United States) and 10 historic lighthouses, features that attract many tourists and seasonal residents. Although many residents and visitors to the region use Lake Michigan for their recreational needs, other water resources such as the Peshtigo River, Popple River, and Pike River also attract visitors with their abundant fishing and paddling opportunities. As highlighted in the 2005-10 SCORP, recreation demand from both local and non-local visitors is focused upon water based recreation such as canoeing and fishing while sightseeing and hiking are also popular. Recreational supply is also influenced by both county and federal forests along with a number of county parks and access points along Lake Michigan. Eight properties of the WSPS are found in this Region. These include Copper Culture, Governor Thompson, Newport, Peninsula, Point Beach, Potawatomi, Rock Island, and Whitefish Dunes State Parks. Combined, these properties host 14.5% of all WSPS visitations. Water based recreation is important to these properties, with all having water frontage on either lakes or rivers.

When visiting these properties, the largest trip related expenditures are in the lodging and transportation sectors as the majority of visitors are from out of the region. In fact, non-local visitors spend almost three times more than local visitors which portray destination type properties that draw visitors from longer distances.

The Upper Lake Michigan Coastal region experiences positive economic impacts from WSPS visitation. It is characteristically rural with a resident population of 455,149. In 2009, total regional employment was 283,380 jobs generating total personal income of about $16.3 billion. Non-local visitors to the Wisconsin Park System accounts for almost 1,400 of these jobs generating $37.7 million in wages that are centered among the top employment sectors of the regional economy that include food services and drinking places, state and local government, private hospitals, wholesale trade businesses, and transport by truck.

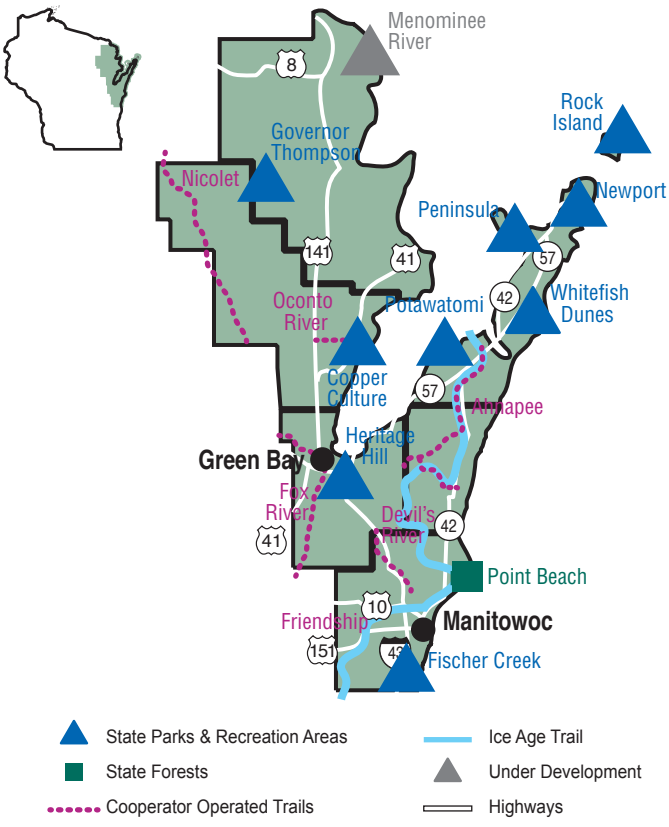


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Table 11. Trip-Related Visitor Expenditures to the Eight WSPS Properties Located in the Upper Lake Michigan Coastal Region by Origin of Visitor (in 2013 USD)

Visitor Expenditure Category	Non-Local Visitors	Local Visitors
Lodging, Including Camping	$28,057,457	$5,305,298
Restaurants and Bars	$18,722,234	$5,931,441
Gasoline and Automobile Service	$19,769,636	$5,751,194
Groceries and Liquor	$14,843,554	$4,777,731
Entertainment	$4,292,790	$664,678
Other Retail Purchases, Including Souvenirs	$6,149,549	$1,301,892
Admissions/Fees/Licenses	$2,815,727	$2,501,396
Equipment Rental and Repair	$714,561	$411,875
Equipment Purchase	$773,766	$9,822,930
Total	**$96,139,274**	**$36,468,435**

Table 12. Upper Lake Michigan Coastal - Annual (2013) Economic Impact of Non-Local Visitors to the Wisconsin State Park System (employment in total number of jobs, income and output in 2013 USD)

	Economic Characteristic			
Impact Type	Employ-ment	Labor Income	Total Value Added	Output
Direct Effect	1,040.3	$22,705,000	$34,909,000	$65,210,000
Indirect Effect	167.6	$7,565,000	$12,007,000	$21,984,000
Induced Effect	190.2	$7,108,000	$12,388,000	$20,552,000
Total Effect	**1,398.1**	**$37,379,000**	**$59,305,000**	**$107,747,000**

(Source: MicroIMPLAN v3.0.17.2 model of 6 Northeastern Wisconsin Counties including Marinette, Oconto, Door, Brown, Kewaunee, and Manitowoc based on exogenous demand shock of 8 WSPS properties.)

The five state parks within Door County account for 14.5% of overall state park visitation.

The Lake Winnebago Waters Region

The Lake Winnebago Waters Region is located in the east-central part of the state and encompasses Calumet, Fond du Lac, Green Lake, Marquette, Menominee, Outagamie, Shawano, Waupaca, Waushara, and Winnebago Counties. It comprises roughly 5,560 square miles and contains 808 lakes. Lake Winnebago, the largest self-contained lake in the state, is a major recreational resource within the region and includes within its larger system the smaller lakes of Butte des Morts, Winneconne, Poygan, as well as the Fox and Wolf Rivers. Because Lake Winnebago exerts such a strong influence on the region as a whole, populations have tended to concentrate around its shores. Most cities within the region are in the Fox River Valley and include the urban areas of Appleton, Oshkosh, Kaukauna, Neenah, and Menasha. Urban and suburban development within the region continues to grow and extend into previously undeveloped areas and public lands.

State lands are the largest public land base within the region, but there are only three properties in the WSPS system found in the Lake Winnebago Waters Region. These are High Cliff and Hartman Creek State Parks and the Kettle-Morraine State Forest – Northern Unit. The remainder of state lands in the region are wildlife or fishery areas. As highlighted in the 2005-10 SCORP, recreation demand from both local and non-local visitors is focused upon boating, fishing, and bird watching. In fact, High Cliff State Park offers some of the best birding within the state.

When visiting these properties, the largest trip related expenditures by WSPS guests are for restaurants and transportation. These types of expenditures reflect the influence of local visitors to these properties that serve primarily as weekend destinations for most users. With such a large population base near these properties camping is also very popular.

The Lake Winnebago Waters region experiences positive economic impacts from WSPS visitation. It is characteristically rural with a resident population of 640,483. In 2009, total regional employment was 366,119 jobs generating total personal income of about $22.4 billion. Non-local visitors to the Wisconsin Park System accounts for 304 of these jobs generating over $22 million in wages; top employment sectors include food services and drinking places, state and local government, wholesale trade businesses, and medical practitioners' offices.

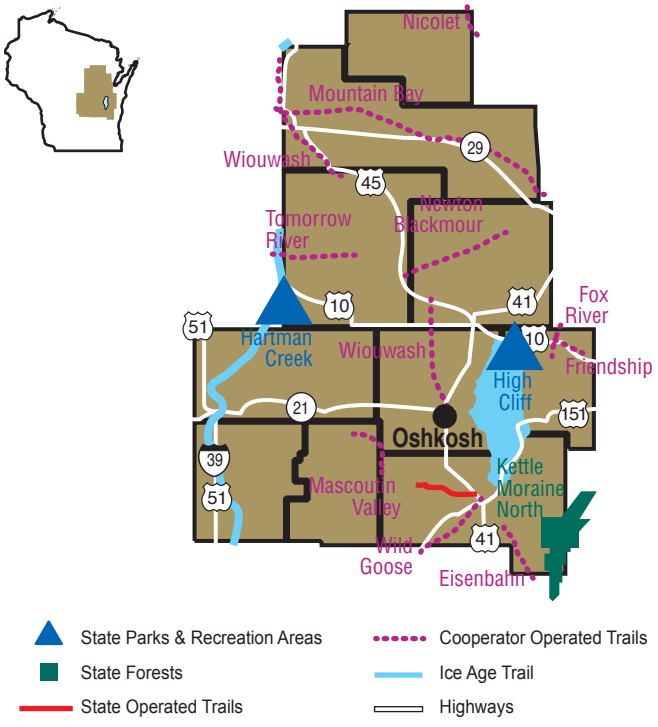


Table 13. Trip-Related Visitor Expenditures to the Three WSPS Properties Located in the Lake Winnebago Waters Region by Origin of Visitor (in 2013 USD)

Visitor Expenditure Category	Non-Local Visitors	Local Visitors
Lodging, Including Camping	$4,586,140	$3,571,270
Restaurants and Bars	$3,757,936	$4,211,379
Gasoline and Automobile Service	$6,102,216	$6,067,588
Groceries and Liquor	$3,659,505	$3,467,542
Entertainment	$1,029,127	$542,786
Other Retail Purchases, Including Souvenirs	$1,383,142	$944,112
Admissions/Fees/Licenses	$669,245	$1,828,884
Equipment Rental and Repair	$865,580	$1,939,041
Equipment Purchase	$239,477	$12,847,197
Total	**$22,292,367**	**$35,419,799**

Table 14. Lake Winnebago Waters - Annual (2013) Economic Impact of Non-Local Visitors to the Wisconsin State Park System (employment in total number of jobs, income and output in 2013 USD)

	Economic Characteristic			
Impact Type	Employ-ment	Labor Income	Total Value Added	Output
Direct Effect	232.7	$4,969,000	$7,379,000	$13,686,000
Indirect Effect	31.7	$1,445,000	$2,284,000	$4,263,000
Induced Effect	39.7	$1,462,000	$2,590,000	$4,329,000
Total Effect	**304.1**	**$7,876,000**	**$12,253,000**	**$22,278,000**

(Source: MicroIMPLAN v3.0.17.2 model of 10 East Central Wisconsin Counties including Menominee, Shawano, Waupaca, Outagamie, Winnebago, Calumet, Waushara, Marquette, Green Lake, and Fond du Lac based on exogenous demand shock of 3 WSPS properties.)

High Cliff State Park has over 400,000 visits per year and includes the only full service marina within the system.

The Western Sands Region

The Western Sands Region is located in the west-central part of the state and includes Adams, Chippewa, Clark, Eau Claire, Jackson, Juneau, Marathon, Monroe, Portage, and Wood Counties. It comprises roughly 9,300 square miles and contains 1,317 lakes. Apart from northern Wisconsin's abundant park and water resources, the Western Sands Region has the largest amount of public lands and water in the state. These areas include the Black River State Forest, Jackson County Forests, the Necedah National Wildlife Refuge, the Wisconsin River, the Chippewa River, the Black River, and many other smaller state and county parks. Although the region remains largely rural, it is influenced by outside tourism demands from the Chicago and Twin Cities metropolitan areas that contain over 11 million people. Easy highway access and relatively cheap land prices within the region have also made it a popular location for seasonal home development. The region's Non-Metro Recreation Counties, Adams and Juneau, have experienced especially high housing growth, particularly along river flowages.

There are a total of fourteen properties of the WSPS found in the Western Sands Region. These include the 400, Buffalo River, Chippewa River, Elroy Sparta, and LaCrosse River State Trails and Brunet Island, Buckhorn, Chippewa Moraine, Hartman Creek, Lake Wissota, Mill Bluff, Rib Mountain, Roche-A-Cri, and Rocky Arbor State Parks. As highlighted in the 2005-10 SCORP, recreation demand from both local and non-local visitors is focused upon canoeing, bird watching and hiking.

When visiting these properties, the largest trip related expenditures for WSPS guests are for restaurants and transportation with lodging and camping as the 3rd largest expenditure. The camping supply is abundant in this portion of the state, and reflects the low cost alternative for overnight lodging. These types of expenditures reflect the influence of non-local visitors to these destination type properties that serve as long weekend outings for most users.

The Southern Gateways region experiences positive economic impacts from WSPS visitation. It is characteristically rural with a resident population of 578,349. In 2009, total regional employment was 344,797 jobs generating total personal income of about $19.3 billion. The Wisconsin Park System accounts for 660 of these jobs generating over $46 million in wages that are centered among the top employment sectors of the regional economy that include state and local government, food services and drinking places, private hospitals, transport by truck, and wholesale trade businesses.

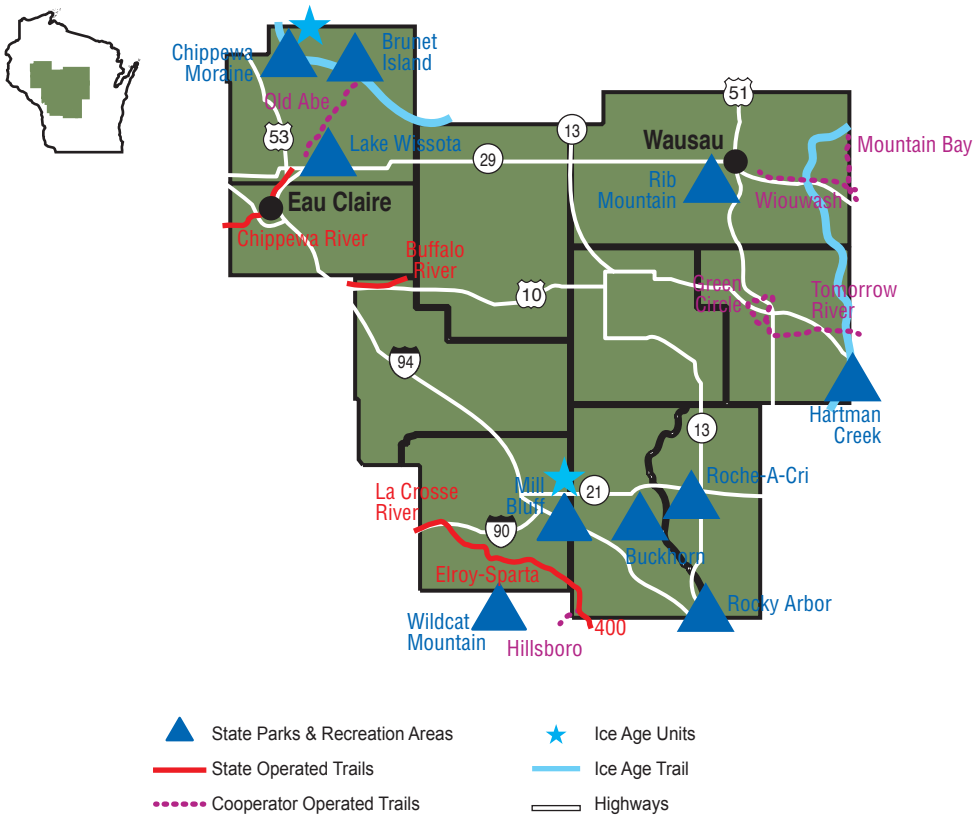


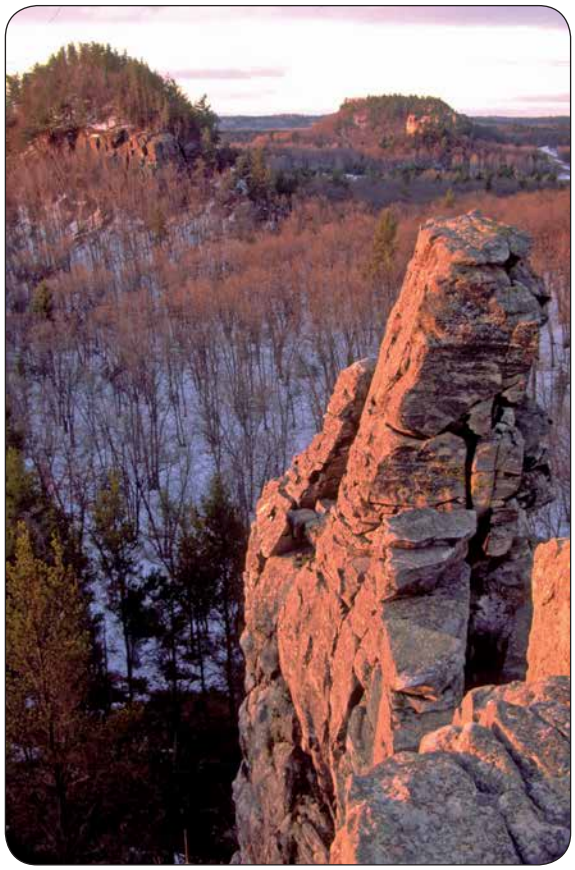
Table 15. Trip-Related Visitor Expenditures to the Fourteen WSPS Properties Located in the Western Sands Region by Origin of Visitor (in 2013 USD)

Visitor Expenditure Category	Non-Local Visitors	Local Visitors
Lodging, Including Camping	$9,708,145	$3,140,291
Restaurants and Bars	$10,004,172	$5,434,813
Gasoline and Automobile Service	$11,254,652	$5,407,702
Groceries and Liquor	$6,507,880	$3,498,269
Entertainment	$2,993,665	$1,016,435
Other Retail Purchases, Including Souvenirs	$3,470,141	$1,266,526
Admissions/Fees/Licenses	$1,045,514	$1,589,147
Equipment Rental and Repair	$1,252,376	$939,241
Equipment Purchase	$331,925	$7,083,791
Total	**$46,568,471**	**$29,376,216**

Table 16. Western Sands - Annual (2013) Economic Impact of Non-Local Visitors to the Wisconsin State Park System (employment in total number of jobs, income and output in 2013 USD)

	Economic Characteristic			
Impact Type	Employ-ment	Labor Income	Total Value Added	Output
Direct Effect	528.3	$10,863,000	$16,115,000	$30,415,000
Indirect Effect	63.1	$2,567,000	$4,032,000	$7,527,000
Induced Effect	78.1	$2,810,000	$4,919,000	$8,237,000
Total Effect	**669.4**	**$16,239,140**	**$25,066,000**	**$46,179,000**

(Source: MicroIMPLAN v3.0.17.2 model of 10 Central Wisconsin Counties including Chippewa, Clark, Marathon, Eau Claire, Jackson, Wood, Portage, Monroe, Juneau, and Adams based on exogenous demand shock of 14 WSPS properties.)

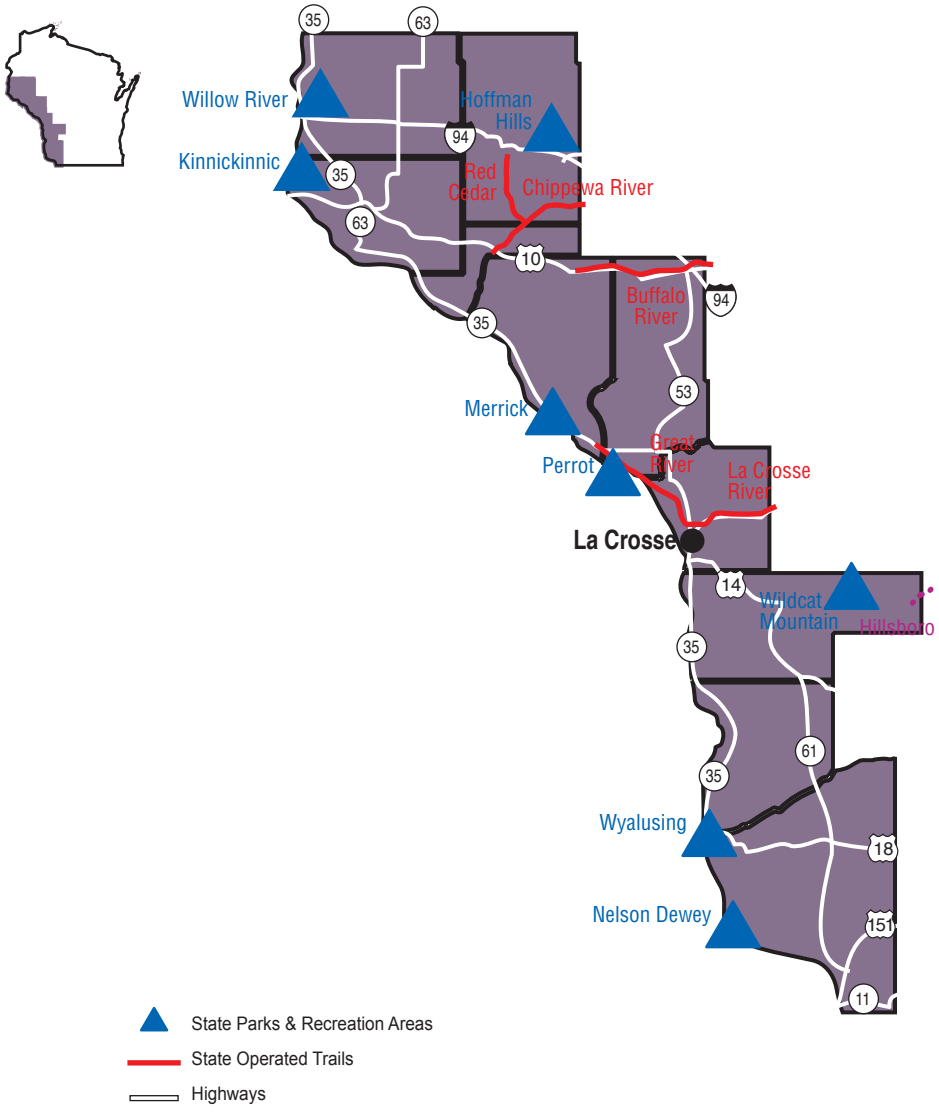


The influence of major highways offers easy access to the Western Sands region and Mill Bluff State Park.

The Mississippi River Corridor Region

The Mississippi River Corridor Region is located along the west edge of Wisconsin from its middle to the southern border, and encompasses St. Croix, Dunn, Pierce, Pepin, Buffalo, Trempealeau, La Crosse, Vernon, Crawford, and Grant Counties. This region contains roughly 6,700 square miles and 385 lakes. The Mississippi River running along the region's western border is the primary recreational resource in the region. The river and its backwaters are used for a variety of nature and water-based recreational activities such as boating and swimming. Streams extending off the Mississippi support an excellent coldwater fishery. Although most public lands within the region are fishery or wildlife areas, there are also a number of state parks. The Great River Road, a thoroughfare that follows the Mississippi for 250 miles, connects over 50 local parks and beaches. Urban influences also impact this region as visitors from the nearby Twin Cities metropolitan area make use of the region's recreational resources. Suburban development associated with the greater Twin Cities metropolitan area in St. Croix and Pierce Counties continues to impact recreation supply and demand across the region.

The Mississippi River Corridor Region has thirteen properties in the WSPS. State Trails in this region include the Buffalo River, Chippewa River, Great River, and LaCrosse River, and Red Cedar. Hoffman Hills is the single State Recreation Area in the region. The region's State Parks include Kinnickinnic, Merrick, Nelson Dewey, Perrot, Wildcat Mountain, Willow River, and Wyalusing River.



As highlighted in the 2005-10 SCORP, recreation demand from both local and non-local visitors is focused upon sightseeing and bird watching while the river also influences water based recreation such as motor boating and swimming.

When visiting these properties, the largest trip related expenditures are restaurants and transportation. These types of expenditures reflect the influence of local visitors to these properties as day use destinations while also serving a non-local based population influenced for the Minneapolis, Minnesota Direct Marketing Area that contains over 4 million people. In fact, non-local visitors spend almost twice as more than local visitors which portray destination type properties that draw from longer distances.

The Mississippi River Corridor region experiences positive economic impacts from WSPS visitation. It is characteristically rural with a resident population of 423,571. In 2009, total regional employment was 229,860 jobs generating total personal income of about $14.2 billion. The Wisconsin Park System accounts for over 1,200 of these jobs generating over $84 million in wages that are centered among the top employment sectors of the regional economy that include state and local government, food services and drinking places, private hospitals, and wholesale trade businesses.

Table 17. Trip-Related Visitor Expenditures to the Thirteen WSPS Properties Located in the Mississippi River Corridor Region by Origin of Visitor (in 2013 USD)

Visitor Expenditure Category	Non-Local Visitors	Local Visitors
Lodging, Including Camping	$19,769,581	$5,331,974
Restaurants and Bars	$17,486,733	$8,291,486
Gasoline and Automobile Service	$21,881,584	$8,473,344
Groceries and Liquor	$12,305,524	$5,248,084
Entertainment	$5,543,145	$1,040,295
Other Retail Purchases, Including Souvenirs	$5,746,302	$1,913,525
Admissions/Fees/Licenses	$2,055,370	$2,138,136
Equipment Rental and Repair	$1,931,130	$1,736,621
Equipment Purchase	$506,932	$10,261,984
Total	**$87,226,301**	**$44,435,450**

Table 18. Mississippi River Corridor - Annual (2013) Economic Impact of Non-Local Visitors to the Wisconsin State Park System (employment in total number of jobs, income and output in 2013 USD)

	Economic Characteristic			
Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	1,004.5	$19,770,000	$29,542,000	$56,711,000
Indirect Effect	114.2	$4,475,000	$7,178,000	$13,464,000
Induced Effect	142.7	$4,761,000	$8,687,000	$14,370,000
Total Effect	**1,261.4**	**$29,006,000**	**$45,406,000**	**$84,545,000**

(Source: MicroIMPLAN v3.0.17.2 model of 10 South Western Wisconsin Counties including St. Croix, Dunn, Pierce, Pepin, Buffalo, Trempealeau, LaCrosse, Vernon, Crawford, and Grant based on exogenous demand shock of 13 WSPS properties.)

The Mississippi River waterways and the Great River Road both provide access to Perrot State park.

The Southern Gateways Region

The Southern Gateways Region is located in the south-central part of the state and encompasses Columbia, Dane, Dodge, Green, Iowa, Jefferson, Lafayette, Richland, Rock, and Sauk Counties. This region contains roughly 7,500 square miles and 222 lakes. The region as a whole is heavily influenced by its association to a number of important geologic features. The Baraboo Hills, located in one of the few portions of the state that remained unglaciated in the past Ice Age, is a spectacular geologic resource with many unique rock formations, cliffs, waterfalls, and a high diversity of plant and animal species. Devil's Lake State Park, a glacial lake surrounded by high cliffs and scenic overlooks and located in the southern range of the Baraboo Hills, is one of the most popular recreation areas in the region and state. The central presence of Madison impacts much of the Southern Gateways Region. Rapid suburban development within the greater Madison metropolitan area has made areas of Dane County among the fastest growing in the state. As urban populations increase, so too does the demand for traditionally urban-based recreation such as dog parks and developed sports facilities.

WSPS properties predominate the public lands base within the Southern Gateways Region accounting for the most WSPS properties within any region of the state. This region has both park, trail, recreation area and forest based properties. The five State Trails within the region are the 400, Badger, Glacial Drumlin, Military Ridge, and Sugar River. The region also includes Browntown – Cadiz Springs State Recreation Area. A portion of the Kettle Morraine State Forest – Southern Unit is found in this region. Also, 13 State Parks are found in this region including Aztalan, Blue Mound, Devils Lake, Governor Dodge, Governor Nelson, Lakeshore, Lake Kegonsa, Mirror Lake, Natural Bridge, New Glarus Woods, Rocky Arbor, Tower Hill, and Yellowstone Lake. As highlighted in the 2005-10 SCORP, recreation demand both from both local and non-local visitors is focused around sightseeing and other land based recreation activities such as camping and bird watching.

When visiting these properties, the largest trip related expenditures of WSPS guests are for restaurants and transportation. These types of expenditures reflect the influence of local visitors to these properties as day use destinations while also serving a non-local based population influenced for the Chicago, Illinois Direct Marketing Area that contains over 7 million people which is more than the entire population of the State of Wisconsin.

The Southern Gateways region experiences positive economic impacts from WSPS visitation. It is characteristically fairly diverse with a resident population of 1,026,965. In 2009, total regional employment was 678,258 jobs generating total personal income of about $39.4 billion. Non-local visitors to the Wisconsin Park System accounts for almost 2,553 of these jobs generating over $200 million in wages that are centered among the top employment sectors of the regional economy that include state and local government, food services and drinking places, real estate establishments, wholesale trade businesses, insurance carriers, and medical practitioners' offices.

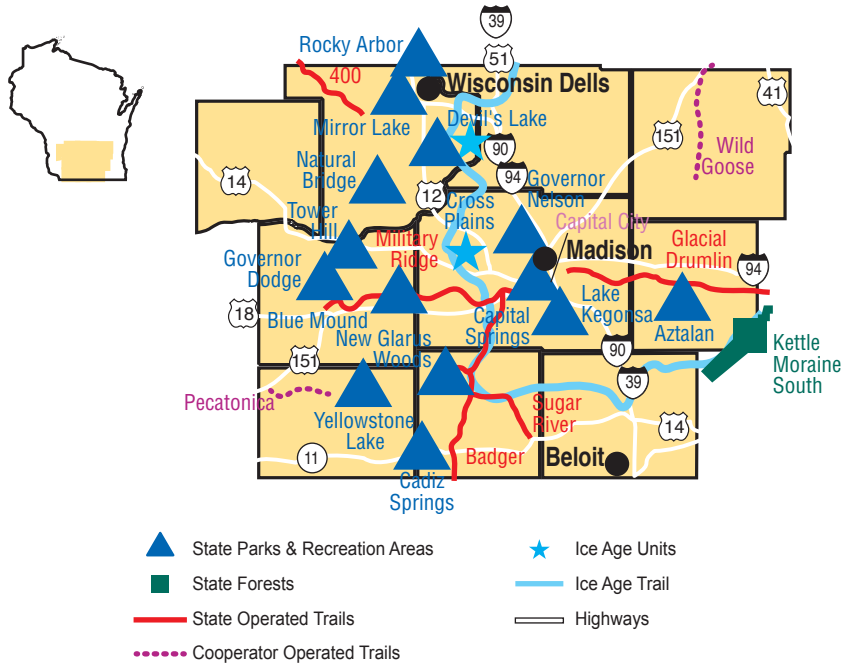


Table 19. Trip-Related Visitor Expenditures to the Twenty WSPS Properties Located in the Southern Gateways Region by Origin of Visitor (in 2013 USD)

Visitor Expenditure Category	Non-Local Visitors	Local Visitors
Lodging, Including Camping	$41,157,619	$17,226,647
Restaurants and Bars	$35,772,679	$25,377,333
Gasoline and Automobile Service	$41,561,941	$25,629,110
Groceries and Liquor	$28,380,546	$19,220,935
Entertainment	$11,623,399	$3,459,781
Other Retail Purchases, Including Souvenirs	$13,059,861	$6,405,705
Admissions/Fees/Licenses	$4,738,787	$8,223,665
Equipment Rental and Repair	$3,172,831	$4,449,264
Equipment Purchase	$1,040,801	$30,669,135
Total	**$180,508,464**	**$140,661,575**

Table 20. Southern Gateways - Annual (2013) Economic Impact of Non-Local Visitors to the Wisconsin State Park System (employment in total number of jobs, income and output in 2013 USD)

	Economic Characteristic			
Impact Type	Employ-ment	Labor Income	Total Value Added	Output
Direct Effect	1,880.5	$43,364,000	$65,120,000	$118,085,000
Indirect Effect	300.3	$13,180,000	$23,040,000	$39,857,000
Induced Effect	372.2	$14,335,000	$26,382,000	$42,729,000
Total Effect	**2,553.0**	**$70,879,000**	**$114,542,000**	**$200,671,000**

(Source: MicroIMPLAN v3.0.17.2 model of 10 South Central Wisconsin Counties including Richland, Sauk, Columbia, Dodge, Iowa, Dane, Jefferson, Lafayette, Green and Rock based on exogenous demand shock of 20 WSPS properties.)

Governor Dodge State Park contributes over $33 million a year to the local economy with activities like cross country skiing.

The Lower Lake Michigan Coastal Region

The Lower Lake Michigan Coastal Region is located in the southeast part of the state and includes Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, and Waukesha Counties. This region comprises roughly 3,126 square miles and 414 lakes. The Lower Lake Michigan Coastal Region is the most urban and most populous of all Wisconsin regions, and is home to Milwaukee, the largest city in the state. The urban influence of Milwaukee and its surrounding suburbs has created demand for distinctly urban recreation facilities such as dog parks, city trails, and basketball courts. Despite this urban influence, some areas of the region such as Walworth County, the lakes area of western Waukesha County, and the Kettle Moraine State Forest offer opportunities for undeveloped outdoor recreation. Tourism, especially from the greater Chicago metropolitan area, is a major influence on Lower Lake Michigan Coastal recreation as increasing numbers of Illinois residents travel to the region to use Wisconsin lands and waters.

There are 10 WSPS properties in the Lower Lake Michigan Coastal Region. These include Big Foot Beach State Park, Glacial Drumlin State Trail, Harrington Beach State Park, Havenwoods State Forest, Kettle Moraine State Forest, Kohler-Andrae State Park, Richard Bong Recreation Area and Hank Aaron State Trail.

When visiting these properties, the largest trip related expenditures are local equipment purchases. But there are also large expenditures from non-local visitors that include lodging and transportation. The influence of the Chicago, Illinois Direct Marketing Area cannot be overstated as this region is within a half days drive for a population base of over 7 million people.

The Lower Lake Michigan region experiences positive economic impacts from WSPS visitation. It is characteristically urban with a resident population of 2,140,803. In 2009, total regional employment was 1,303,808 jobs generating total personal income of about $84.8 billion. The Wisconsin Park System accounts for 1,339 of these jobs generating over $117 million in wages that are centered among the top employment sectors of the regional economy that include food services and drinking places, state and local government, wholesale trade businesses, real estate establishments, private hospitals, medical practitioners' offices, and employment services.

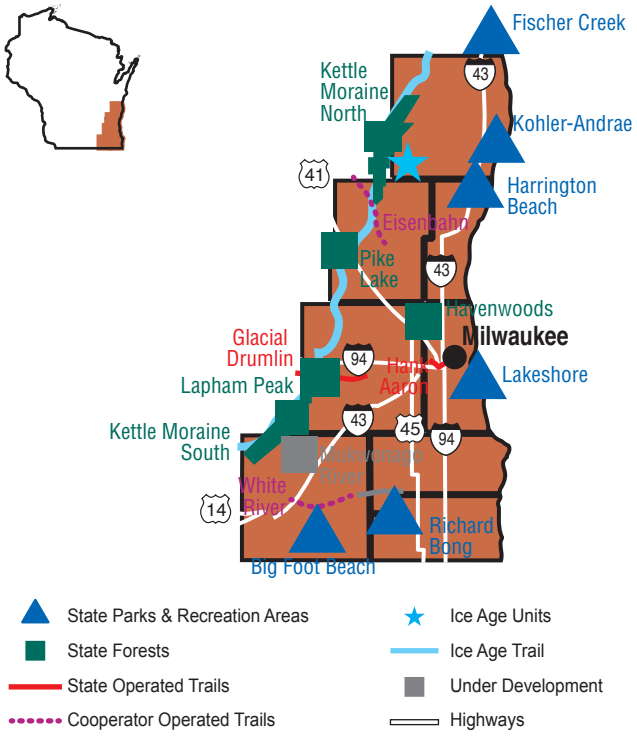


Table 21. Trip-Related Visitor Expenditures to the Ten WSPS Properties Located in the Lower Lake Michigan Coastal Region by Origin of Visitor (in 2013 USD)

Visitor Expenditure Category	Non-Local Visitors	Local Visitors
Lodging, Including Camping	$24,762,882	$15,176,922
Restaurants and Bars	$17,464,440	$17,585,401
Gasoline and Automobile Service	$22,512,563	$18,909,131
Groceries and Liquor	$12,947,491	$13,346,437
Entertainment	$4,379,798	$2,154,154
Other Retail Purchases, Including Souvenirs	$5,881,748	$4,211,544
Admissions/Fees/Licenses	$2,069,432	$5,841,328
Equipment Rental and Repair	$2,772,421	$3,687,339
Equipment Purchase	$1,195,297	$38,728,980
Total	**$93,986,073**	**$119,641,236**

Table 22. Lower Lake Michigan Coastal - Annual (2013) Economic Impact of Non-Local Visitors to the Wisconsin State Park System (employment in total number of jobs, income and output in 2013 USD)

	Economic Characteristic			
Impact Type	Employ-ment	Labor Income	Total Value Added	Output
Direct Effect	900.2	$23,184,000	$35,095,000	$61,999,000
Indirect Effect	184.1	$8,812,000	$14,214,000	$25,222,000
Induced Effect	255.0	$10,633,000	$18,492,000	$30,628,000
Total Effect	**1,339.3**	**$42,629,000**	**$67,801,000**	**$117,849,000**

(Source: MicroIMPLAN v3.0.17.2 model of 8 Southeastern Wisconsin Counties including Sheboygan, Washington, Ozaukee, Waukesha, Milwaukee, Walworth, Racine, and Kenosha based on exogenous demand shock of 10 WSPS properties.)

The Kettle Moraine Scenic Drive is a designated scenic route that links two units of the Kettle Moraine State Forest.

Summary, Conclusions and Policy Implications

Public properties owned and managed as part of the Wisconsin State Park System (WSPS) are key linchpin assets to local communities across the state. In addition to direct private sector market-based contributions of non-local visitor spending to regional businesses and their spinoff multiplier effects, this system provides a host of ecosystem and conservation benefits that accrue to society at large. The applied research reported here outlines the market-based benefits associated with these public lands, managed by the Bureau of Parks and Recreation, Wisconsin Department of Natural Resources. While significant, these provide a conservative figure to the overall value of the system to local communities, the state, and beyond.

The applied research questions that were addressed in this work involved the extent to which properties in the WSPS drew visitors who partook in widely varying recreational activities, characteristics of these visitors including trip-related expenses, and the resulting economic impacts felt through regional business activity measured in jobs, income, and economic output. Trip expenditures were estimated by employing a meta-analysis of existing studies combined with a Delphi process consisting of expert panel responses from property managers. These estimates were then annualized for both local and non-local visitors. The non-local visitor spending was then applied to input-output models developed for eight sub-state regions to develop results which speak to local economic impacts.

Results suggest that the Wisconsin State Park System is comprised of parks, recreation areas, forests, and trails which offer widely varying activities attracting differing types of visitors. Further, these outdoor recreation site types are not evenly distributed across the state of Wisconsin. Visitors to the Wisconsin State Parks and Trails System include both day-trippers and overnight guests; their place of origin varies widely but is important in understanding and isolating new money flowing into the gateway communities surrounding these properties. On average, individual trip spending of visitors to these state properties ranged from almost $41 per day (State Forests) to over $90 per day (State Trails).

During the recent past, the WSPS experienced an average annual visitation level of roughly 14 million visitor-days. Visitors to the Wisconsin State Park System have annual expenditure patterns that, in total, sum to more than 1 billion dollars (2013 USD) per year. The majority of this trip spending (almost 60 percent) is done by visitors to State Parks who do not reside within local communities in close proximity to the parks. Non-local visitors who are not resident in the region containing these state properties create an economic impact; they infuse private sector stimulus that drives local business receipts. In total, the annual spending of these non-locals is estimated to exceed $580 million (2013 USD).

The economic impacts of the Wisconsin State Park System vary across the state and depend on property and visitor activity type, visitation levels, and local economic conditions; we analyzed impacts for eight sub-state regions that match the 2005-2010 Wisconsin State Comprehensive Outdoor Recreation Plan (or SCORP). When combined, the local economic impacts of this private sector stimulus within these regions accounted for over 8,200 jobs and $350 million in income for residents of the state of Wisconsin.

The public properties that make up the WSPS are important drivers of local economic vitality within gateway communities across the state. The relatively small investment in funding these local assets pays significant returns to this investment in the way of local business receipts. Further, these properties are managed to protect and conserve important environmental resources of the state and serve as key Wisconsin legacy areas. As such, the economic values associated with these publicly owned goods (e.g. ecosystem function value, option value, existence value, bequest value, etc.) are significant and exist well-beyond the estimates provided by this research.

There is ample opportunity for further research that can provide more detailed results that speak to impacts and importance of the WSPS. An important further research need involves examining a more complete and comprehensive set of economic values associated with the WSPS that extend beyond market-based impacts. Important natural, cultural, historic, and human-built amenities are found throughout the WSPS that are managed for societal benefits. The non-market values associated with indirect and non-uses that include ecosystem function, option, existence, and bequest require empirical estimates and application within cost-benefit analysis. Methods that could be employed to examine these values include both stated and revealed preference approaches and exist beyond the scope of work captured in this report.

There are important associations that need to be examined empirically to more clearly examine and estimate the role the WSPS in local economic and demographic vibrancy. State-owned parks and trails exist as unique public land types. Other types of public lands that likewise serve as conduits for outdoor recreation and amenity access include Federal and State forests, wetlands, wildlife refuges, recreation areas, and all navigable bodies of water in the Lake States. Further, in Wisconsin, Minnesota, and Michigan, county owned forests are important public lands that experience significant recreational

use pressures. Finally, local units of government (cities, towns, and counties) also have parks that likewise serve as conduits for outdoor recreation. All of these public land types likely differ in their role in creating local business activity, economic impacts, and demographic change motivators. A more comprehensive approach to public lands assessment with respect to outdoor recreation and local change indicators could provide important extensions to this work.

Examining change elements using alternative geographic resolutions would likely result in differing implications for local lands and public policies that affect outdoor recreation. Certainly, statewide, regional, and county boundaries serve as important administrative delineations but may make little sense in assessments of local economic and demographic change metrics with respect to parks and trails. Minor Civil Division (MCD) level analysis (or even finer resolutions) can be a more useful and appropriate level of detail for further research.

The applied research reported here addressed several key questions that improve our understanding of how state parks and trails affect local economic conditions within the communities and regions within which these properties are located. Indeed, the properties managed by the Wisconsin Bureau of Parks and Recreation serve as important drivers of market-based local economic vitality within gateway communities across the state.

Public properties owned and managed as part of the Wisconsin State Park System (WSPS) are key linchpin assets to local communities across the state.

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Appendix A - Delphi Instruments

Introductory Message

Dear _____(name of Park Administrator):

We have embarked on a project to more clearly identify and define the role of the Wisconsin State Park System in community development across Wisconsin. More specifically, it focuses on how state parks and trails affect job creation and income generation within gateway communities most heavily impacted by state parks and trails. To estimate these local economic impacts, we need your help and expertise.

The link below redirects you to a series of questions that pertain to your visitors. Note that we are interested in your expert understanding of origins and activites of your customer base. Please identify your visitors with respect to two regions. The first region is defined using one of 8 regions of the 2005-2010 SCORP. The other is termed a "Nearby Region" and is defined using the Minor Civil Division (MCD) in which the park/trail is located and it's first neighboring MCD (MCD+1). Please respond within two days of receiving this message … it should only take a couple of minutes of your time.

Click on the following link:

[NOTE: this will be administered using an email message to park administrators and Qualtrics software. The email message will include the above verbiage and contain a link that will direct the respondent to the following three pages organized using Qualtrics.]

Thanks for your time,
Jeff Prey

Appendix B - Visitation Levels by Property

Table B1. Visitation Levels by the Wisconsin State Park System Property (2010 local and nonlocal based on the Eight SCORP regions)					
		Local Visit		Non-Local Visit	
WSPS Property	**Total Visitation**	**Daytrips**	**Overnight**	**Daytrips**	**Overnight**
400 St Trail	47,235	11,336	17,005	5,668	13,226
Amnicon Falls SP	87,983	39,592	4,399	39,592	4,399
Aztalan SP	42,387	25,432	0	16,955	0
Badger St Trail	122,133	87,020	4,580	27,480	3,053
Bearskin-Hiawatha St Trail	157,720	78,860	0	78,860	0
Big Bay SP	142,447	28,489	28,489	64,101	21,367
Big Foot Beach SP	192,913	9,646	28,937	115,748	38,583
Blue Mound SP	141,870	49,655	21,281	21,281	49,655
Browntown-Cadiz Springs	59,044	50,187	0	8,857	0
Brunet Island SP	155,175	93,105	31,035	12,414	18,621
Buckhorn SP	132,845	45,699	7,439	23,912	55,795
Buffalo River St Trail	38,307	32,752	3,639	1,053	862
Chippewa Moraine	24,718	5,932	8,898	7,910	1,977
Chippewa River St Trail	56,502	53,140	537	2,260	565
Copper Culture*	40,000	16,000	0	24,000	0
Copper Falls SP	140,324	52,622	17,541	63,146	7,016
Council Grounds SP	224,933	143,395	25,305	14,058	42,175
Devil's Lake SP	1,817,710	545,313	363,542	272,657	636,199
Elroy-Sparta St Trail	65,187	8,800	978	19,393	36,016
Glacial Drumlin	245,411	187,739	33,130	12,271	12,271
Gov. Thompson	46,907	9,381	14,072	5,863	17,590
Governor Dodge SP	504,752	227,138	75,713	131,236	70,665
Governor Nelson SP	196,805	186,965	0	9,840	0
Great River St Trail	73,245	49,440	5,493	9,156	9,156
Hank Aaron St Trail*	75,000	60,000	0	15,000	0
Harrington Beach SP	168,915	43,918	65,877	5,912	53,208
Hartman Creek SP	155,001	34,100	27,900	32,550	60,450
Havenwoods	47,761	46,806	0	716	239
High Cliff SP	451,346	216,646	144,431	4,513	85,756
Hoffman Hills St. Rec. Area	33,290	18,975	999	9,321	3,995
Interstate SP	290,381	24,682	4,356	196,007	65,336
Kettle Moraine-Northern Unit	541,628	265,398	113,742	138,115	24,373
Kettle Moraine-Southern Unit	1,135,702	442,924	295,283	158,998	238,497
Kinnickinnic SP	169,300	71,106	30,474	54,176	13,544
Kohler-Andrae SP	414,830	199,118	132,746	33,186	49,780
La Crosse River St Trail	53,020	33,933	8,483	5,302	5,302
Lake Kegonsa SP	184,350	64,523	64,523	13,826	41,479

Table B1. (con't)					
		Local Visit		Non-Local Visit	
WSPS Property	**Total Visitation**	**Daytrips**	**Overnight**	**Daytrips**	**Overnight**
Lake Wissota SP	118,121	60,242	10,631	2,362	44,886
Lakeshore SP	89,455	88,560	895	0	0
Lapham Peak Unit	319,957	243,167	12,798	57,592	6,399
Merrick SP	82,556	63,155	7,017	7,430	4,953
Military Ridge St Trail	123,735	97,998	990	24,747	0
Mill Bluff SP	56,104	15,148	10,099	1,543	29,314
Mirror Lake SP	367,834	83,682	45,060	59,773	179,319
Natural Bridge	7,724	2,761	1,487	869	2,607
Nelson Dewey SP	24,871	497	4,477	3,979	15,917
New Glarus Woods SP	56,900	27,312	6,828	5,690	17,070
Newport SP	137,088	30,845	10,282	71,971	23,990
Pattison SP	197,627	63,241	15,810	88,932	29,644
Peninsula SP	1,077,397	94,272	282,817	315,139	385,169
Perrot SP	317,519	152,409	38,102	38,102	88,905
Pike/Lowe Lake Units	188,136	141,102	47,034	0	0
Point Beach	376,556	85,666	46,128	159,095	85,666
Potawatomi SP	209,390	78,521	26,174	20,939	83,756
Red Cedar St Trail	46,479	36,811	372	8,366	930
Rib Mountain SP	154,387	92,632	0	61,755	0
Richard Bong	331,232	127,524	54,653	74,527	74,527
Roche-A-Cri SP	48,314	25,365	8,455	3,624	10,871
Rock Island SP	25,859	517	2,069	15,128	8,146
Rocky Arbor SP	69,876	5,241	29,697	3,494	31,444
Straight Lake*	3,500	3,150	0	350	0
Sugar River St Trail	40,196	22,912	1,206	15,274	804
Tower Hill SP	14,644	10,434	549	3,478	183
Tuscobia St Trail	10,009	8,007	0	2,002	0
Whitefish Dunes SP	205,987	51,497	0	154,490	0
Wildcat Mt SP	214,048	12,843	19,264	18,194	163,747
Willow River SP	479,050	95,810	23,953	323,359	35,929
Wyalusing SP	207,498	43,575	18,675	94,412	50,837
Yellowstone Lake SP	278,160	83,448	83,448	55,632	55,632
Totals	**14,238,786**	**5,428,965**	**2,389,793**	**3,308,232**	**3,111,795**

*Visitation data for these properties was not readily available but has been estimated using expert knowledge.
(Source: WDNR BPR and expert-panel results.)

Appendix C - Visitor Expenditure Patterns by Property

Table C1. Summary of Visitor Expenditure Patterns by State Park Property (all normalized to 2013 on an individual per day basis)

Wisconsin State Park	Accommodations	Restaurants & Bars	Gas & Auto	Groceries & Liquor	Entertainment	Misc. Retail	Fees & Licenses	Equipment Rental	Equipment Purchase	Total
Amnicon Falls	$8.54	$7.64	$7.99	$8.19	$2.73	$3.06	$2.48	$0.10	$0.74	$41.47
Aztalan	$8.55	$8.56	$13.10	$9.20	$1.80	$2.72	$2.74	$1.72	$3.85	$52.24
Big Bay	$4.56	$8.67	$9.77	$8.75	$3.68	$3.17	$2.51	$0.04	$1.71	$42.86
Big Foot Beach	$6.45	$6.84	$8.24	$7.39	$1.06	$2.02	$2.41	$0.24	$4.42	$39.07
Blue Mound	$13.22	$8.54	$6.59	$6.42	$1.40	$2.59	$1.43	$0.17	$9.75	$50.09
Brunet Island	$9.11	$13.70	$14.75	$9.57	$4.80	$3.93	$1.84	$1.44	$10.63	$69.75
Buckhorn	$7.71	$10.70	$18.23	$11.31	$2.22	$3.03	$3.21	$2.92	$5.80	$65.14
Copper Culture	$7.83	$8.35	$10.00	$4.34	$0.94	$1.86	$1.11	$1.54	$7.43	$43.40
Copper Falls	$11.98	$6.00	$5.59	$6.56	$1.18	$2.53	$2.16	$0.09	$0.85	$36.92
Council Grounds	$8.88	$10.31	$16.67	$11.37	$2.10	$3.12	$3.29	$2.52	$4.99	$63.25
Devil's Lake	$6.88	$8.49	$8.95	$6.66	$3.05	$2.84	$1.86	$0.39	$2.57	$41.69
Governor Thompson	$7.71	$10.70	$18.23	$11.31	$2.22	$3.03	$3.21	$2.92	$5.80	$65.14
Governor Dodge	$7.55	$8.65	$13.77	$10.15	$1.89	$2.84	$3.02	$1.72	$3.89	$53.49
Governor Nelson	$12.97	$8.02	$9.10	$6.99	$1.25	$2.28	$2.34	$0.87	$3.19	$47.02
Harrington Beach	$8.84	$7.21	$9.61	$9.67	$1.63	$3.20	$2.80	$0.90	$1.97	$45.84
Hartman Creek	$5.07	$8.15	$14.17	$11.78	$2.04	$3.32	$3.34	$1.44	$3.25	$52.55
High Cliff	$10.95	$7.05	$11.68	$4.85	$0.81	$1.76	$1.69	$3.40	$12.09	$54.29
Interstate	$6.01	$6.53	$9.72	$10.27	$1.67	$2.89	$3.15	$0.46	$1.82	$42.52
Kinnickinnic	$9.32	$11.16	$18.40	$11.44	$2.19	$3.05	$3.31	$2.98	$5.84	$67.69
Kohler-Andrae	$7.00	$6.68	$7.66	$5.56	$0.98	$1.91	$1.73	$0.47	$4.75	$36.75
Lake Kegonsa	$11.87	$10.98	$14.78	$8.54	$2.69	$3.04	$2.41	$2.31	$4.37	$60.99
Lake Wissota	$10.91	$10.67	$13.53	$8.04	$3.06	$3.23	$2.15	$1.99	$3.65	$57.23
Lakeshore	$9.78	$8.13	$8.92	$6.35	$1.48	$2.61	$1.33	$1.17	$7.57	$47.34
Merrick	$7.28	$7.54	$11.41	$9.73	$1.74	$2.81	$2.95	$1.09	$2.83	$47.38
Mill Bluff	$3.05	$11.70	$11.89	$7.78	$5.83	$3.44	$2.03	$0.08	$2.48	$48.27
Mirror Lake	$14.57	$9.51	$12.21	$7.61	$1.56	$2.53	$2.41	$1.87	$3.85	$56.12
Natural Bridge	$13.82	$16.60	$12.14	$5.31	$3.16	$5.44	$0.89	$2.22	$2.41	$61.99
Nelson Dewey	$6.15	$12.24	$16.16	$7.84	$3.86	$2.89	$2.03	$2.09	$6.31	$59.58
New Glarus Woods	$7.89	$8.28	$8.29	$5.26	$1.69	$1.81	$1.75	$0.26	$5.33	$40.55
Newport	$11.51	$6.53	$6.41	$6.81	$1.12	$2.38	$2.27	$0.15	$1.91	$39.09
Pattison	$8.95	$6.30	$7.77	$7.58	$1.43	$2.73	$2.27	$0.57	$1.67	$39.28
Peninsula	$9.45	$6.57	$6.25	$4.52	$0.79	$1.67	$1.57	$0.19	$4.34	$35.34
Perrot	$7.73	$9.07	$10.63	$4.41	$1.88	$1.63	$1.40	$1.08	$6.41	$44.24
Potawatomi	$7.96	$9.85	$10.74	$9.28	$2.85	$3.31	$2.01	$0.65	$9.74	$56.38
Rib Mountain	$11.47	$11.65	$8.76	$4.89	$5.54	$3.29	$3.43	$0.13	$1.46	$50.61
Roche-A-Cri	$8.95	$8.48	$6.94	$3.05	$2.51	$1.94	$0.95	$0.16	$4.08	$37.06
Rock Island	$5.85	$11.19	$13.03	$8.74	$2.55	$2.82	$1.91	$0.82	$11.79	$58.70
Rocky Arbor	$8.94	$8.92	$14.77	$8.54	$2.71	$2.89	$2.68	$3.34	$10.66	$63.46

Table C1. (con't)										
Wisconsin State Park	Accommodations	Restaurants & Bars	Gas & Auto	Groceries & Liquor	Entertainment	Misc. Retail	Fees & Licenses	Equipment Rental	Equipment Purchase	Total
Straight Lake	$8.00	$7.82	$11.46	$9.48	$1.77	$3.15	$2.64	$1.47	$2.97	$48.77
Tower Hill	$9.19	$10.18	$12.64	$7.10	$3.39	$2.79	$2.05	$1.39	$3.18	$51.91
Whitefish Dunes	$6.63	$8.00	$10.81	$9.36	$2.55	$2.97	$2.80	$0.69	$2.11	$45.93
Wildcat Mt	$9.62	$8.62	$13.10	$6.78	$1.51	$2.42	$1.93	$1.53	$4.73	$50.24
Willow River	$11.46	$9.44	$9.47	$6.89	$3.19	$3.31	$1.85	$0.93	$1.69	$48.23
Wyalusing	$6.39	$11.08	$13.98	$8.99	$4.44	$3.28	$2.52	$1.16	$2.76	$54.60
Yellowstone Lake	$5.86	$9.99	$15.40	$11.49	$2.96	$3.54	$3.14	$1.93	$3.82	$58.13

Table C2. Summary of Visitor Expenditure Patterns by State Recreation Area (all normalized to 2013 on an individual per day basis)										
Wisconsin State Recreation Area	Accommodations	Restaurants & Bars	Gas & Auto	Groceries & Liquor	Entertainment	Misc. Retail	Fees & Licenses	Equipment Rental	Equipment Purchase	Total
Browntown-Cadiz Springs	$7.03	$8.90	$13.96	$8.62	$1.42	$2.10	$2.43	$1.22	$8.01	$53.68
Chippewa Moraine	$10.54	$8.45	$6.62	$3.40	$2.59	$2.15	$1.07	$0.15	$3.09	$38.06
Hoffman Hills	$14.43	$7.82	$5.46	$3.25	$1.62	$2.00	$1.18	$0.22	$2.70	$38.70
Richard Bong	$21.10	$20.29	$36.08	$9.22	$4.40	$4.16	$2.29	$9.95	$31.70	$139.20

Table C3. Summary of Visitor Expenditure Patterns by State Forest (only those State Forests managed by the Bureau of Parks and Recreation - all normalized to 2013 on an individual per day basis)										
Wisconsin State Forest	Accommodations	Restaurants & Bars	Gas & Auto	Groceries & Liquor	Entertainment	Misc. Retail	Fees & Licenses	Equipment Rental	Equipment Purchase	Total
Havenwoods	$8.38	$6.52	$5.43	$1.27	$0.36	$0.84	$0.60	$0.23	$6.73	$30.35
Kettle Moraine - Northern Unit	$7.27	$9.86	$11.64	$8.24	$3.87	$3.38	$2.21	$0.97	$2.10	$49.54
Kettle Moraine - Southern Unit	$11.36	$7.07	$5.37	$6.03	$1.30	$2.55	$1.33	$0.07	$7.01	$42.10
Lapham Peak Unit	$14.64	$6.63	$5.10	$3.15	$0.74	$1.91	$1.13	$0.23	$2.71	$36.24
Pike/Loew Lake Units	$9.05	$7.67	$10.75	$8.35	$1.65	$2.86	$2.40	$1.37	$2.95	$47.04
Point Beach	$11.52	$7.70	$6.83	$5.72	$1.91	$2.39	$1.87	$0.17	$2.28	$40.40

Table C4. Summary of Visitor Expenditure Patterns by State Trail (only those State Trails managed by the Bureau of Parks and Recreation - all normalized to 2013 on an individual per day basis)										
Wisconsin State Trails	**Accommodations**	**Restaurants & Bars**	**Gas & Auto**	**Groceries & Liquor**	**Entertainment**	**Misc. Retail**	**Fees & Licenses**	**Equipment Rental**	**Equipment Purchase**	**Total**
400	$17.41	$17.61	$13.23	$7.59	$1.50	$6.96	$0.73	$2.89	$6.76	$74.68
Badger	$26.10	$26.19	$18.67	$9.66	$3.27	$9.44	$0.64	$4.36	$10.01	$108.35
Bearskin-Hiawatha	$18.65	$18.69	$12.58	$6.83	$1.28	$6.36	$0.63	$2.98	$9.98	$77.99
Buffalo River	$29.21	$32.85	$29.40	$11.74	$6.53	$12.27	$0.88	$6.20	$2.70	$131.78
Chippewa River	$17.05	$19.52	$13.31	$8.01	$2.43	$6.98	$0.66	$2.87	$9.93	$80.77
Elroy-Sparta	$21.40	$22.43	$15.09	$7.77	$1.32	$7.40	$0.60	$3.75	$12.10	$91.85
Glacial Drumlin	$19.05	$21.31	$14.26	$7.77	$1.38	$7.50	$0.47	$3.63	$10.97	$86.35
Great River	$18.02	$20.40	$15.30	$8.05	$1.46	$6.57	$0.74	$3.53	$13.27	$87.34
Hank Aaron	$9.89	$8.47	$7.26	$6.05	$1.51	$2.68	$0.88	$0.57	$11.76	$49.06
La Crosse River	$17.96	$22.77	$15.63	$8.78	$2.90	$8.11	$0.61	$3.59	$9.84	$90.18
Military Ridge	$20.79	$20.83	$13.58	$7.73	$1.36	$7.62	$0.62	$3.61	$8.39	$84.53
Red Cedar	$19.64	$17.46	$11.73	$6.80	$1.28	$5.37	$0.80	$2.38	$12.20	$77.67
Sugar River	$20.36	$25.36	$17.32	$8.92	$1.56	$8.59	$0.35	$4.39	$15.19	$102.04
Tuscobia	$27.26	$27.76	$29.20	$11.20	$9.88	$9.80	$1.01	$3.57	$3.90	$123.57

Appendix D - Total Annual Visitor Expenditures by Property

Table D1. Summary of Total Annual Visitor Expenditures by State Park (in 2013 USD)			
Wisconsin State Park	**Total Non-Local Expenditure**	**Total Local Expenditure**	**Total Local and Non-Local Expenditure**
Amnicon Falls	$2,639,235	$1,374,257	$4,013,492
Aztalan	$1,085,158	$1,029,626	$2,114,784
Big Bay	$5,838,104	$2,656,527	$8,494,632
Big Foot Beach	$8,867,817	$2,172,883	$11,040,700
Blue Mound	$6,741,398	$4,083,402	$10,824,800
Brunet Island	$3,981,019	$9,205,471	$13,186,490
Buckhorn	$10,551,946	$3,174,897	$13,726,843
Copper Culture	$1,166,631	$611,014	$1,777,645
Copper Falls	$3,771,444	$2,190,727	$5,962,171
Council Grounds	$7,542,065	$9,671,568	$17,213,633
Devil's Lake	$81,290,657	$39,147,040	$120,437,696
Governor Dodge	$17,785,347	$15,795,645	$33,580,992
Governor Nelson	$581,448	$6,534,466	$7,115,914
Governor Thompson	$3,196,192	$1,966,741	$5,162,934
Harrington Beach	$6,530,123	$5,891,848	$12,421,971
Hartman Creek	$9,866,538	$3,668,201	$13,534,739
High Cliff	$10,023,013	$26,099,314	$36,122,326
Interstate	$17,422,812	$1,058,986	$18,481,798
Kinnickinnic	$6,614,329	$7,128,503	$13,742,832
Kohler-Andrae	$5,700,884	$14,192,498	$19,893,383
Lake Kegonsa	$7,331,325	$8,950,259	$16,281,584
Lake Wissota	$6,621,416	$3,470,681	$10,092,098
Lakeshore	$489,079	$3,300,318	$3,789,397
Merrick	$1,017,115	$2,786,445	$3,803,559
Mill Bluff	$3,690,638	$1,244,218	$4,934,856
Mirror Lake	$29,416,841	$7,287,984	$36,704,826
Natural Bridge	$493,226	$246,032	$739,258
Nelson Dewey	$2,542,240	$455,253	$2,997,493
New Glarus Woods	$1,896,232	$1,372,466	$3,268,698
Newport	$6,021,595	$1,437,907	$7,459,501
Pattison	$7,447,921	$2,684,697	$10,132,618
Peninsula	$45,785,263	$18,809,978	$64,595,241
Perrot	$11,035,302	$8,543,374	$19,578,676
Potawatomi	$11,889,366	$6,499,618	$18,388,984
Rib Mountain	$4,105,881	$3,218,226	$7,324,107
Roche-A-Cri	$1,153,807	$1,210,302	$2,364,109
Rock Island	$1,982,230	$252,748	$2,234,978
Rocky Arbor	$4,668,461	$3,657,654	$8,326,115
Straight Lake	$21,201	$116,470	$137,670
Tower Hill	$251,438	$442,856	$694,295
Whitefish Dunes	$8,949,868	$1,746,885	$10,696,752
Wildcat Mt	$21,073,562	$2,029,998	$23,103,560
Willow River	$24,934,206	$4,796,547	$29,730,753
Wyalusing	$13,530,146	$3,253,368	$16,783,514
Yellowstone Lake	$11,898,601	$11,257,840	$23,156,441

Table D2. Summary of Total Annual Visitor Expenditures by State Recreation Area (in 2013 USD)			
Wisconsin State Recreation Area	**Total Non-Local Expenditure**	**Total Local Expenditure**	**Total Local and Non-Local Expenditure**
Browntown-Cadiz Springs	$537,176	$2,343,855	$2,881,031
Chippewa Moraine	$573,055	$660,364	$1,233,419
Hoffman Hills	$865,713	$574,385	$1,440,098
Richard Bong	$32,477,978	$31,531,349	$64,009,327

Table D3. Summary of Total Annual Visitor Expenditures by State Forest (only those State Forests managed by the Bureau of Parks and Recreation - in 2013 USD)			
Wisconsin State Forest	**Total Non-Local Expenditure**	**Total Local Expenditure**	**Total Local and Non-Local Expenditure**
Havenwoods	$39,297	$1,301,088	$1,340,384
Kettle Moraine - Northern Unit	$11,855,451	$17,564,769	$29,420,220
Kettle Moraine - Southern Unit	$30,837,484	$36,900,589	$67,738,073
Lapham Peak Unit	$3,282,605	$6,948,055	$10,230,660
Pike/Loew Lake Units	$1,931,421	$7,497,818	$9,429,240
Point Beach	$17,148,130	$5,143,544	$22,291,674

Table D4. Summary of Total Annual Visitor Expenditures by State Trail (only those State Trails managed by the Bureau of Parks and Recreation - in 2013 USD)			
Wisconsin State Operated Trails	**Total Non-Local Expenditure**	**Total Local Expenditure**	**Total Local and Non-Local Expenditure**
400	$2,977,348	$2,569,283	$5,546,631
Badger	$4,527,453	$7,877,426	$12,404,880
Bearskin-Hiawatha	$7,351,854	$4,948,074	$12,299,928
Buffalo River	$487,600	$3,840,729	$4,328,330
Chippewa River	$328,748	$3,500,431	$3,829,179
Elroy-Sparta	$9,984,493	$801,200	$10,785,694
Glacial Drumlin	$3,794,226	$17,684,761	$21,478,987
Great River	$2,778,886	$4,442,065	$7,220,951
Hank Aaron	$775,540	$2,785,355	$3,560,895
La Crosse River	$1,743,747	$3,600,603	$5,344,349
Military Ridge	$2,576,591	$6,492,812	$9,069,403
Red Cedar	$922,738	$2,445,069	$3,367,807
Sugar River	$2,004,013	$2,161,981	$4,165,995
Tuscobia	$328,853	$663,566	$992,419


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