Uncovering the Effects of Conservation Efforts along the Lower Wisconsin Riverway

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http://www.dnr.state.wi.us/org/land/wildlife/wildlife_areas/mazomanie.htm

Background:

The Lower Wisconsin State Riverway was created when Governor Tommy Thompson signed Wisconsin Act 31 in 1989. This piece of legislation was the culmination of years of planning and hours of public meetings. Wisconsin Act 31 designated the Lower Wisconsin Riverway to be the southernmost 92.3 miles of the river. This project encompasses 79,275 acres across six counties (Columbia, Crawford, Dane, Grant, Iowa, Richland and Sauk) and the Lower Wisconsin Riverway extends from just below the dam at Prairie du Sac to the joining of the Wisconsin and the Mississippi at Wyalusing State Park near Prairie Du Chien.

In order to administer the large area and multiple goals of the Lower Wisconsin Riverway, a new state agency, the Lower Wisconsin State Riverway Board, was created. This board was put in place to ensure the aesthetic integrity of the Riverway.

Introduction:

The Lower Wisconsin Riverway is part of a very dynamic habitat because of the diverse landscapes, flora, and fauna that are found in this floodplain landscape (Naimen et al. 1993). The area is covered by numerous tree species, including sugar maple, basswood and American elm, with the undergrowth consisting of sedge meadows and prairie (Curtis 1959). In an effort to preserve this pristine aesthetic beauty, while still promoting private land ownership, the Lower Wisconsin State Riverway Board drafted a mission statement to articulate their goals. According to the Lower Wisconsin State Riverway Board Strategic Plan:

"The mission of the Lower Wisconsin State Riverway Board is to protect and preserve the scenic beauty and natural character of the Lower Wisconsin State Riverway through administration of a program to control land use and development. In concert with the program to control land use and development, due consideration shall be given to the rights of landowners and the freedom to exercise the rights associated with land ownership.

The challenge facing the Lower Wisconsin State Riverway Board is to maintain the fragile and delicate balance between protection and preservation of the scenic beauty and natural character of the Lower Wisconsin State Riverway and protection and preservation of the rights of landowners and local residents within the boundaries of the Lower Wisconsin State Riverway" (Lower Wisconsin State Riverway Board, Strategic plan, pg.5, 2006).

In this paper we hope to uncover the changes that have occurred in the area due to the passing of the legislature that created the Lower Wisconsin State Riverway. More specifically we will look at how land use regulations aimed at preserving the natural landscape on the Lower Wisconsin Riverway (LWR) have impacted the ways the land is utilized. Additionally, we plan to gauge how these land use changes have affected the local population.

One of the primary goals of the Lower Wisconsin State Riverway Board (LWSRB) has been to preserve the scenic beauty of the river and surrounding area, while maintaining some level of control on development. There have been a number of studies which focus on how land use regulations can affect the aesthetic value of a place, and specifically on the positive effects of these regulations on the flora and fauna of a region. For instance, Hale, Steen-Adams, Predick, and Fisher (2005) looked at how the two main regulatory matters of the LWSRB have had the inadvertent effect of aiding the avian population of the region. The study notes that the LWSRB's two primary goals involve limiting the removal of vegetation and controlling the

construction and maintenance of structures within the LWR. For instance, using this study as an example, there really are no specific regulations on bird populations. However, by simply trying to achieve the goal of not overly-limiting development but maintaining scenic beauty, the LWSRB has effectively created an environment with ecological effects that the study claims to be beneficial to certain populations, such as birds (Hale, Steen-Adams, Predick, Fisher 2005).

A study focused on land cover change from 1930 to 1990 along the entire Wisconsin River subdivided the river into northern, central and southern regions. Focusing solely on the southern section of the Wisconsin Riverway, it was found that from 1930 to 1990 grassland and agricultural landscapes decreased while forest and wetland land cover remained close to constant (Ross E. Freeman et el. 2003). However, it was seen that there was a large variety in the predominant land cover between the three different regions of the riverway. Freeman also uncovered the trend of increasing urbanization, noting that by the 1990s many of the urban regions had tripled in size. This urbanization is something that the LWSRB has aimed to limit in order to ensure that the natural beauty of the region would be upheld. These trends implicate the complexity of land management and the need to explore how different land management strategies might affect landscape change (Naiman and Turner 2000). Land change is not the only factor that the LWSRB is facing, as their plan must also address social and economic factors that private landowners will face (Naiman et al 1995).

Additionally, some studies have analyzed the effect that incorporating socioeconomic variables, such as population density, can have on a study. One such study, looking at land cover changes between 1938 and 1990, found that the study was strengthened with the addition of two socioeconomic variables: population density and the proportion of land on the Wisconsin River managed by the Department of Natural Resources (DNR) (Burgi and Turner, 2002). They

believed that explanatory variables are very important, as simple statistical models (which is what their study was without the addition of the socioeconomic variables) often fail to account for things like cultural attitudes or local politics of a region, such as the LWSRB (Burgi and Turner, 2002).

Public participation and local cooperation are critical to the success of any conservation or land use management plan. Local perceptions of conservation and attitudes toward land use regulation are especially important to areas like the LWR, which rely on private land use easements as a conservation strategy. Research studies and surveys of local residents are often performed during the creation of management plans in order to involve people who will be most affected by land use changes in the decision making process and to gain public support. Much of the literature analyzing local people's reaction toward conservation has focused on foreign populations and the implementation of surveys to gauge local response. Several studies we looked at developed surveys that investigated how socioeconomic status, education and knowledge of conservation issues affected responses to local conservation efforts (Pavlikakis & Tsihrintzis, 2006; Trakolis, 2001; Xu et al., 2006). These studies aimed to obtain results that would help to design or modify an appropriate management plan for the protected area in question and identify main issues for consideration in the future.

Research in these studies was carried out through the implementation of questionnaires and personal interviews. Pavlikakis and Tsihrintzis provide an excellent example of how this type of survey can accurately assess local response to conservation in their study of local populations around Thrace National Park in Greece. As discussed previously, the goal of this survey was to identify issues relating to park management, while collecting demographic data on its respondents. This study attempted to accurately gauge local response by offering a wide

range of closed and open-ended questions to more than 1,500 local inhabitants. While this relatively large sample size helps to gain a broad perspective, several areas of bias and uncertainties exist. In an attempt to reduce bias, the sample covered a wide range of the population living in the ecosystem and interviewers were properly trained on how to interview and approach interviewees (Pavlikakis & Tsihrintzis, 2006). While the questions posed in these surveys were specifically tailored to the inhabitants of the study area, these studies can provide a framework for formulating a similar survey for the LWR.

Methods:

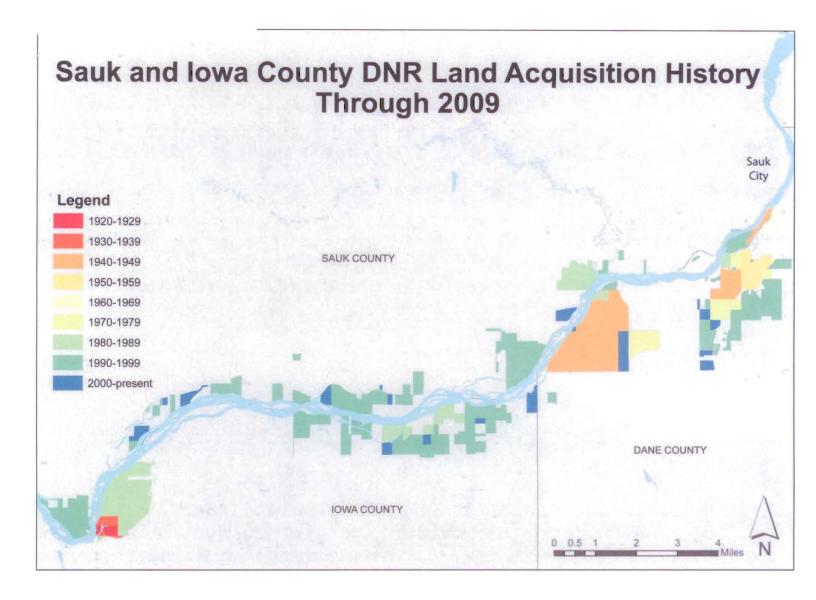
There are two distinct sections to this study: a GIS-based analysis on DNR land acquisition history, and a questionnaire involving local reactions. In order to implement the GIS-based analysis, we used public land information found at the DNR website. Originally we had planned to use multiple layers: a parcel layer, a WISCLAND land use layer, as well as historic plat maps to analyze land ownership change since the creation of the LWSRB. However, while the DNR does offer some land acquisition information on its web site, no shapefiles of the land acquisition history could be located. By using the DNR WEBVIEW (DNR Webview, 2009) server, we were instead able to select all of the DNR managed lands in an area and download a shapefile. We selected an area that encompassed the LWSR and exported a shapefile with all of the DNR managed lands. This shapefile was very useful because we were able to attain the total amount of DNR land owned along the LWSR. Unfortunately this shapefile had no historical data on what year each parcel of land was obtained by the DNR. In order to get an acquisition date for each of the 2000 parcels, we added a field to the attribute table of our LWSR shapefile and manually dated each parcel. The historical information was acquired from the DNR managed

lands interactive web mapping application (DNR Webview, 2009). This web mapping application is nothing more than an ArcIMS server similar to the WEBVIEW server with one main difference—we were not able to download the data that was clearly already in digital form. Our only option was to add a date field to the LWSR shapefile and manually date each of the 2000 parcels. This long and tedious process then gave us the acquisition decade and polygon area of each parcel of DNR owned land along the entire LWSR. As we saw in Freeman, Stanley, and Turner (2003), we hope to apply the overlying trends present in their study as a means of seeing if the changes present from 1930 to 1990 are still occurring, or if the changes since the creation of the LWSRB have affected the area surrounding the Lower Wisconsin River. In order to see the trend in DNR land area along the LWSR, summary statistics from each decade were computed and then compared to the overall current DNR land in the LWSR.

The time and resources available to us limited the questionnaire portion of our study, but in an attempt to reach the largest number of people we employed several different methods. First we contacted the Executive Director of the LWSRB, Mark Cupp, and Dave Gjestson, a former DNR Riverway Coordinator, in an attempt to gain a more thorough understanding of the history, creation, and current workings of the LWSRB. Second, we traveled to Sauk City, WI, a village lying adjacent to the LWSR, where we conducted personal interviews with local people. We conducted these interviews at a variety of public locations, such as a library and post office, where we were more likely to encounter a number of people living within that area. In compiling the results of our questionnaires we wished not to develop quantitative graphical results, but rather a qualitative range of responses presented in a descriptive style.

Results:

The intent of the Riverway regulations are to minimize the visual impact of an activity when viewed from the river during leaf-on conditions. This goal will be more easily met with the continued increase in DNR lands along the Lower Wisconsin Riverway. The DNR has owned land along the Lower Wisconsin Riverway for over 100 years, however its largest land area increase was seen in the decade following the inception of the Lower Wisconsin State Riverway Board. The creation of the Lower Wisconsin State Riverway helped to preserve much more of the land along the Lower Wisconsin River than had previously been preserved by the DNR. Image 1 below shows DNR land acquisition by decade in Sauk and Iowa counties along the Wisconsin River. This area was looked at in detail since we surveyed the public in Sauk City. Sauk City is located 18 Miles northwest of Madison and has a population of around 3000 people. It was chosen as our survey site because of its close proximity to Madison and because it is located on the banks of the Wisconsin River. The map has a diverging color scheme generated from Colorbrewer.org. Ideally we hoped to use a sequential color scheme however with nine classes in became almost impossible to distinguish one class from another. A sequential color scheme would be nice to show the addition of DNR land over time, but with nine classes we were forced to use a diverging color scheme. The map shows how much more of the DNR land was acquired in Iowa and Sauk County after the inception of the LWSR in 1989.



This trend held true along the entire riverway. When analyzing the statistics for all of the DNR land immediately surrounding the 93 mile Lower Wisconsin River, we saw a dramatic increase in DNR land after its inception shown below in Table 1. Our analysis allowed us to see the general trend in land acquisition in Table 1. along with more detailed results in Table 2. As indicated in Table 2 below, over 67 square kilometers of land was set aside by the DNR in the decade following the creation of the LWSR. Compared to only .25 square kilometers in the 1920s, it is apparent how much of an accomplishment the creation of the LWSR was for Wisconsin.

Table 1 Land Acquisition Trend

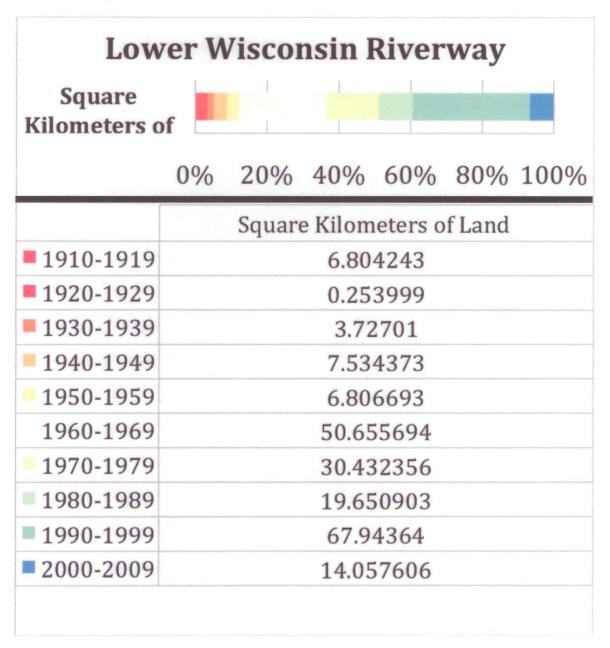


Table 2 Land Acquisition Statistics

The results of the interviewing and questionnaire portion of our study generally produced two types of information. The first, coming from the interviews conducted with Mark Cupp and David Gjestson, produced a great deal of information on the history of the LWSR. We received

a lot of insight into the creation of the LWSR, initial public input and sentiment, early setbacks and problems, and how the LWSR has evolved into what it is today through public and government involvement.

The origins of the LWSR project began with the DNR's desire to combine the various state owned properties along the riverway under one comprehensive management plan. The Chief Planner at the time solicited plan inputs from various DNR staff and developed a comprehensive plan with little to no local input. Furthermore, there were efforts to join forces with the National Park Service in order to include the Lower Wisconsin in their Wild and Scenic Rivers Program. At this point there was massive public opposition to the idea. Almost no one on or near the riverway wanted the federal government involved in any way. The initial plan was completely abandoned and the DNR went back to work attempting to develop a new plan that was more representative of local opinion. It was eventually decided that this area would instead become a state forest.

For about five years, planning went on with the idea that this land would be a state forest. During this time many "very volatile public meetings" were held. After some time the general public consensus was that the state forest plan was overly swayed towards preservation and was therefore still too restrictive. At this point the riverway plan that exists today was drafted and a plan emerged that was supported by both the DNR and the public. Legislation for the creation of the LWSR was passed in 1989.

Following the creation of the LWSR, Cupp estimated 10-20% of locals strongly backed the project and an equal amount strongly opposed it, with the rest of the population remaining rather apathetic. Several groups had formed during the initial planning process and were still highly active directly following the initiation of the project. The first of these was a group called

Private Land Owners of Wisconsin (PLOW). This group had been, and remains, highly opposed to any government regulation on their land or any of the land surrounding the river. This group constituted the majority of those opposed to the Riverway project. They were active in writing editorials and often appeared at public meetings and Board meetings claiming that "the Riverway was bad." The second group was Friends of the Lower Wisconsin Riverway (FLOW). This group had formed as an activist group in support of the Riverway project and focused its initial efforts on not letting PLOW undermine efforts to preserve the river's resources through regulation. This group seemed to constitute the majority of those strongly backing the project. The remaining landowners and locals seemed unopposed and "most people seemed supportive."

Plow remained active for about 10 years following the LWSR's creation, and eventually vocal opposition began to fade. According to Cupp, opposition from PLOW in recent years has been limited to personal attacks of him "pushing his agenda," and generally are becoming less fact based and more emotionally driven. The group FLOW, on the other hand, remained highly active throughout the years. FLOW continues to be present at public meetings and works to further preservation efforts along the Riverway.

The beginnings of the Riverway were not without setbacks and obstacles. David Gjestson, the initial director of the Riverway, in his interview named just a sample of what he encountered in the project's first years:

"Private Landowners of Wisconsin's (PLOW) angry opposition at every Riverway Board meeting, no permanent staff but me,... reluctant cooperation from DNR wildlife managers,...angry horseback riders who wanted all state-owned lands open to riding, angry ATV users,...nude beach use at Mazomanie (major policy problems between me and law enforcement officials), legislators complaining about no communications from me,...heavy river use,...designing

signs for the riverway,...river drowning (and pressure to do something about it), ...private-owned Battle of Wisconsin Heights under development threat,...timber trespass,...illegal ATV use,...too much party noise on the river,...nudes being seen across the river impacting private business,...eagles being disturbed by boaters,...illegal home placement at Gotham (several houses on state land), how do you survey riverway users."

Over the years the board has continually worked to improve and continue their communication with local people as well as the DNR, and today, according to the accounts of Cupp and Gjestson as well as our survey results, the situation seems much improved with many of the initial problems smoothed out.

By interviewing Cupp and Gjestson we were able to gather some information on the tools currently used by the LWSRB to elicit input from local people and to continue to keep residents aware of any new changes or events happening on the Riverway. The Board use press releases, a newsletter for landowners, their website, and e-mails to keep locals informed of any changes as well as upcoming events and meetings. Monthly board meetings are held at various locations along the river to accommodate those living in all different areas and are open to the general public. This is also when building permits and other requests and input are heard from landowners. Meeting agendas and minutes can be viewed after meetings by anyone on the LWSRB website. As far as attendance at meetings, Cupp expressed in his interview that most of the people present are landowners with an issue, question, or seeking a permit. He stated that FLOW is often also represented. A final important tool utilized by the board to keep in touch with local people is through on-site meetings. According to Cupp, LWSRB and DNR representatives attempt to meet with every new homeowner or person buying property within the LWSR boundaries. The purpose of this, he stated, was for several reasons: to ensure that new

owners understand what they are buying into, to prevent any future conflict that could arise from misunderstandings, and to establish a working relationship with land owners along the Riverway. The Board also makes it best attempt to be present for on-site meetings regarding permits for regulated land use. Since the beginning of the LWSR project Cupp estimated that nearly every landowner within the Riverway, if not all, had been in contact with the Board at one point in time. This can be viewed as one way of looking at landowner representation in the Riverway project.

The second type of information gathered from the interviewing and questionnaire portion of our study was current local residents' perceptions of the LWSR project. Using our written questionnaire (Appendix A) we were able to obtain responses from 19 local citizens. The results of these showed the average time lived in the Lower Wisconsin River Valley was 28.1 years (meaning the average citizen in our study has been there longer than the LWSR) with a range of 1.5 years to 73 years. The question as to whether or not they were familiar with LWSRB regulations yielded five yes responses. Of those that answered how they had been familiarized with the Board, the responses varied from "landowner," "neighbors and town board," and "reading newspaper." Only one person had undertaken an activity that required a permit. This was for timber harvest, and in their case they felt their rights as a landowner had been restricted. One other respondent replied that they had not yet been restricted "but will be." Only one respondent had been to a LWSRB meeting (the same person who had their timber rights restricted). When asked about their view of the LWSR seven people responded positively, four neutral, two negatively, and six had no opinion. For recreation uses of the river, fishing had the most responses (11) and the rest are listed as follows: motor boating- eight, canoeing/kayakingnine, wildlife viewing- seven, hunting- four, camping- four, hiking- 10, cross-country skiingone, and horseback riding- one. When asked about the mission statement and how well the board fulfilled their stated goal six said "very well," seven said "somewhat," one said "not at all," and five said "don't know." In response to whether or not the LWSR was necessary to protect the scenic beauty and natural character of the river 13 people felt that it was, four did not, with one comment stating they "believe it's everyone's responsibility," and two were not sure. The additional comments portion of the questionnaire gave the following responses:

- 1) "I believe the river would be in worse shape without LWSR."
- 2) "Land owners can come up with crazy ideas sometimes. It's good to have an extra step-like the LWSR org. between landowners and actions just to be safe. It kills me sometimes the things people do without thinking of the long-term ramifications."
- 3) "Questioned how Kenny Nonn [sic] and Morey Mozeman [sic] got their big condo buildings approved right on the river."
- 4) "I do not own much land there. My neighbors complained about their restrictions and feel they are and always have been good stewards of the land."

Discussion:

In looking at Image 1, as well as Table 1, it is clear that the creation of the LWSR yielded a huge increase in DNR owned lands. The DNR acquired over 67 square kilometers of land following the creation of the LWSRB, which is more than the DNR had acquired for a 50-year period from 1910-1960. This large amount of land being set aside for public use alone prompts us to believe that the LWSRB has been successful in its promotion of conservation along the river. The location of the DNR land is also rather remarkable as most of the land is right along the riverway. This will ensure that the river remains a place of scenic beauty and a place for multiple outdoor activities to take place for years to come. Interestingly, there was another decade, 1960-1969, in which the DNR owned lands increased rather dramatically. This is something that we cannot account for without more data, although it could be the result of new

legislation, land being sold, or simply the renewed interest in the environmental protection movement that took place in the 1960s.

The most important aspect when attaining information regarding the DNR's acquired lands through time was coming up with an approach that would allow us to create maps that visually show where these acquisitions occurred, while yielding actual statistical results. Not only was this our primary goal, but it ended up being the biggest issue we faced. As previously stated, we originally intended to digitize plat maps in order to trace the changes that occurred in DNR owned land from 1990 to 2005. However, this process proved to be extremely time consuming and fairly imprecise. Therefore, we decided to use information from the DNR website to create a file displaying land acquisition history on the LWR.

While the DNR does provide online maps containing the decade a parcel was acquired, the only data available for download simply displays all the land with no regard to its acquisition year. This meant we once again had found a time consuming method of creating maps as every parcel had to be populated with its acquisition year individually. Though we were unable to find a less time intensive method, we did manage to find a way to get precise results. Because the DNR website only allows the user to download a PDF map of land acquisition year, there would have been no way to perform statistical analysis on the land parcels. Since we decided to download the shapefile on their website and add the acquisition data to it, we were able to find statistics such as the square kilometers owned by the DNR for every decade from 1910 until the present. Additionally, we were able to create maps which displayed DNR owned lands for each decade quite easily, something we would have been unable to do if we had not edited the DNR shapefile ourselves.

The other main issue we faced during the GIS aspect of our research was in determining what land to consider as part of the Lower Wisconsin Riverway. Not all of the land contained in the LWR is DNR owned or managed land, since the LWR land extends in some places to the areas which can be seen from the river. However, getting parcel level data as well as acquisition history data would be a monumental task and would be something future researchers on this topic might find of interest. Also, not all the land is simply owned by the DNR. Some of the parcels are easements and are not subject to the same regulations as owned land. Therefore, we were forced, largely due to time constraints, to simplify our process and look at all DNR land without regard to easements and other variations in land ownership.

After analyzing the survey results, a few general trends became apparent. While no actual statistical analyses were performed due to the small and biased sample size, these trends were generally noticeable in most of the surveys. The first and foremost is the fact that while most residents surveyed were in favor of conservation efforts along the riverway, there was some disagreement about the form these efforts should take. The biggest area of divergence arose around how much and what types of regulations were necessary. Most people thought the LWSR was necessary to protect the scenic beauty and natural character of the land, but far fewer felt positively towards the LWSR itself. This seemed to indicate to us that most of the residents we surveyed felt there was a need for some sort of protective measures, but maybe did not feel that the measures taken by the LWSR were the right ones. Another possibility that may explain the lack of correlation between support for the LWSR in preserving the natural landscape and possessing a positive view of the LWSR, may simply be that many of the respondents said they were not familiar with LWSR regulations. Also, in responding to the question of what their opinion of the LWSR was many said "neutral" or "don't know" instead of negative. This could

indicate that if they had been familiar with the actual regulations on landowners they may have been more decisive in how they felt towards the actual LWSR, and may have responded similarly to both of those questions.

Another trend that we observed during analysis was that a large portion of our respondents had used the lands protected by the LWR for recreational purposes. This seemed to correlate positively with people's view of the riverway itself. Specifically, there was one respondent who noted that their rights as a landowner had been restricted. While we expected this person to have a negative view of the LWSR, they were actually neutral. One possibility is that their frequent recreational use of the riverway prevented them from being completely opposed to it. Generally, it seemed that if the riverway was not such an accessible recreational resource, people would not have felt such a strong need to preserve its natural state.

One additional correlation we expected to see, but did not, was between the amount of time a resident lived in the Lower Wisconsin River Valley and their views held about the LWSR. We thought that residents who had lived there longer may feel more negatively towards the LWSR, while those that had moved to the area more recently might feel more neutral or positively towards it. Without any statistical analysis, there did not seem to be any real correlation between these factors. Some of the respondents that lived near the riverway well before the implementation of the LWSRB were just as supportive of it as those that had recently moved there.

One note to make about the survey results is that they are not truly representative of all of the LWSR area because they were all gathered only in Sauk City. Additionally, few of our respondents were actually landowners. Future researchers may want to survey actual landowners and compare those results with other general residents in the area to observe different relationships and attitudes.

As is the case with many studies, we encountered a number of limitations throughout the course of the survey portion of our field work. One major difficulty we experienced during our survey of local residents was a lack of sufficient time. This manifested itself in a number of areas of our study, mainly by restricting the design and implementation of our survey. Although our resulting survey generated meaningful results, a more sophisticated design could elucidate more in depth conclusions. Given more time, future researchers could develop a stratified random sample strategy to accurately gauge the perceptions of a diverse population, without introducing any sources of possible bias. Our resultant survey was essentially random, in that we surveyed people at random and did not specifically choose people or places that we assumed would generate certain results. However, by specifically choosing locations in our study area where we expected to encounter the largest amount of people, some bias was introduced on our part. For example, we focused on places such as grocery stores, libraries and other local businesses, while ignoring sparsely populated areas in order to generate the largest sample size possible given our time restraints. While these places provided survey respondents at random, the fact that these were high density areas could have influenced our results. A well formulated, stratified random sample could take all areas into account, regardless of population density.

Another drawback was that, because we were limited to in-person surveys, we were unable to gain insights into certain elements of our sample population that may have been helpful in analysis. Unlike similar surveys we looked at, we did not take demographic factors of our study population into account as it was not critical to our study. For future research, this information could help to gain an understanding of how certain demographic factors may have

influenced responses. The in-person method of surveying also influenced the type and number of questions we were able to ask. In this type of survey, it is critical to design short, succinct questions that provide meaningful responses without turning away potential respondents. Because of this, we were limited to mostly true or false and multiple choice based questions, with space for additional comments if offered. This limited the amount of in-depth responses that we were able to obtain. Future researchers, with adequate time and resources to conduct a more formal, comprehensive survey, could be able to generate more meaningful results.

After analyzing both the GIS land acquisition and survey results, we did not find any correlation between the amount of government owned land in the LWR and local opposition. Although government land acquisitions have risen dramatically since the creation of the LWR in 1989, local opposition to the project has reduced significantly. This may be partially due to local residents becoming more accepting of regulations over time (or less overtly against), but it is a surprising result nonetheless. The decline in opposition to the LWSR regulations has allowed the Board to effectively implement its management plans.

Conclusion:

After examining state land acquisitions through time, surveying local residents and interviewing people critical to the creation and management of the LWR, we believe that the LWSRB has been successful in promoting the tenets of its mission statements. It is not much of a stretch to conclude that the amount of land acquired and protected by the DNR after 1989 is directly linked to the inception of the LWSR and its goal of protecting the "scenic beauty and natural character" (LWSRB 2006) of the Lower Wisconsin Riverway. While some of the

conservation goals of the LWSRB are fundamentally at odds with the rights of landowners in the area, the Board has done well to avoid infringing on these rights.

Although we believe the LWSRB has been successful in its mission, one area of concern is the perception of the Board by local residents. As previously stated, while most surveyed residents were in favor of conservation efforts, very few had any knowledge about the policies of the LWSRB. In order to favorably engage with residents in the future, the LWSRB may want to consider increasing its outreach and promotion beyond the scope of only landowners within the LWSR boundaries and make additional attempts to connect with the larger community surrounding the riverway as well. By doing this, the LWSRB could potentially gain additional support from those residents in favor of conservation efforts and mitigate problems that may arise between the Board and local residents. Clearly, the LWSRB has been successful in its primary goal of preservation, but in order to ensure continued success, the Board needs to make a concerted effort to reach out to local communities in the future.

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Appendix A

The following survey is for the purpose of assessing local awareness and perceptions of the Lower Wisconsin State Riverway. This research is being performed by University of Wisconsin students for the purpose of a class research project. Participation in this study is completely voluntary and any information collected will be kept confidential.

The Lower Wisconsin State Riverway was created in 1989 with the passage of Wisconsin Act 31. It comprises the final 92.3 miles and 79,275 acres of the lower Wisconsin River valley beginning below the dam at Prairie du Sac, WI and extending to the confluence with the Mississippi River at Wyalusing State Park near Prairie du Chien, WI. An independent State agency, the Lower Wisconsin State Riverway Board, administers the Riverway.

For more information on this survey or to share your thoughts with us contact: (we will create an email account to insert here on the actual survey)For more information on the Lower Wisconsin State Riverway visit their website at: http://lwr.state.wi.us

For the purpose of this survey the Lower Wisconsin State Riverway will be referred to as LWSR.

- 1) How many years have you lived in the Lower Wisconsin River Valley?
- 2) Are you familiar with the LWSR Board's regulations?
- 3) If yes to the above question, how were you informed of these?
- 4) Have you ever undertaken an activity on your land that required LWSRB approval?
- 5) Do you feel your rights as a landowner have ever been restricted by LWSR regulations? If so, in what way?
- 6) Have you ever attended a LWSR Board meeting or public hearing?
- 7) Would you consider your view of the LWSR to be:
 - a. Positive
 - b. Neutral
 - c. Negative
 - d. Don't know
- 8) Do you frequently use the LWSR for recreation purposes? If yes, please circle below which purposes.
 - a. Boating (motorboat)
 - b. Canoeing/kayaking
 - c. Fishing
 - d. Wildlife viewing
 - e. Hunting
 - f. Camping
 - g. Hiking
 - h. Cross-country skiing
 - i. Horseback riding

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| 1. | Other: | |
| 1. | Ouici. | |

- 9) The stated mission of the LWSR Board is to "protect and preserve the scenic beauty and natural character of the Lower Wisconsin State Riverway through administration of a program to control land use and development. In concert with the program to control land use and development, due consideration shall be given to the rights of landowners and the freedom to exercise the rights associated with land ownership." Overall, how well does it fulfill this mission?
 - a. Very well
 - b. Somewhat
 - c. Not at all
 - d. Don't know
- 10) Do you think the LWSR is necessary to protect the scenic beauty and natural character of the Lower Wisconsin River?