The Highway 100 Expansion Meets the Rock Island Preserve

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Prepared for:
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May 2004

Property of Urban and Regional Planning
University of Iowa
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EXECUTIVE SUMMARY

Scope and Purpose of the Project

This report aims to provide our client, Mr. Taylor and the Sierra Club, with the information necessary to challenge the extension of Highway 100 through the Rock Island Preserve. The scope of this report on the Highway 100 extension includes both a legal and a planning component. Our report examines the ways that the Sierra Club could potentially challenge the extension of Highway 100 through the legal system. The report also provides Mr. Taylor and the Sierra Club with a broader, proactive planning strategy to enable them to be active participants in future Linn County planning decisions.

Methodology

- One way to challenge the proposed alignment through the legal system is to contend that the Environmental Impact Statement is inadequate because conditions have changed. Thus, we determined the relevant legal standards for challenging an EIS based on changed conditions, found cases that support the preparation of a Supplemental EIS and cases that do not support the preparation of a Supplemental EIS.

- Another way to challenge the proposed alignment through the legal system is to contend that based on § 138 of the Federal Aid Highways Act the Iowa DOT needed to conduct a detailed environmental analysis and seriously consider other routes alternatives. Thus, we analyzed § 138 to determine its applicability to the current Highway 100 situation.

- We investigated the players in the Highway 100 situation and analyzed their various positions about the proposed Highway in order to present our clients with a broad-based planning strategy.

- Our analysis entailed research about the political interests involved in Cedar Rapids and Linn County’s highway planning, as well as a critical analysis of the comprehensive plans of Linn County and Cedar Rapids.

- Additionally, we synthesized ecological information regarding the Rock Island Preserve. We determined which species exist in the conservation district, the habitat these species
require, the effects of habitat bifurcation, and the consequences that a new extended highway link would have on the conservation district.

- Finally, we investigated the effectiveness of public participation in development decisions and conducted research about how to maximize public participation in future land use decisions in Linn County and Cedar Rapids.

Facts and Findings

Cedar Rapids is the largest metropolitan area in Linn County. As a result, the development of Cedar Rapids determines development and transportation needs in the region as a whole.

- Cedar Rapids has identified the Northwestern area of the city’s edge as the main location of the city’s growth. Development on this outer edge could place pressure on the regional traffic network and create a need for connecting the Northwestern and Northeastern parts of the city, as well as the smaller cities on the Eastern side of the city.

- The city’s desire to plan ahead for this Northwestern-Northeastern connection has prompted support and provided justification for the proposed Highway 100 expansion. The preferred alignment for the expansion provides a fairly straight route from these Western neighborhoods to the Eastern parts.

- Linn County has not played a major role in the Highway 100 expansion, but the County’s growth management strategies and tools are designed to prevent sprawl and encourage development near city services.

- The Linn County Regional Planning Commission, of which Cedar Rapids is the member with the most voting power, is also a key player in the development of the region as it is responsible for regional transportation planning. Its 2030 Transportation plan includes the proposed alignment for the Highway 100 extension.

- The major concern with the proposed alignment for the Highway 100 expansion project is that it will run through the Rock Island Preserve, which is right outside the city’s boundary and adjacent to the area planned for Cedar Rapid’s growth.

- The Linn County Conservation Board opposes the proposed alignment because of the effects roads, especially highways, can have on natural habitat.
• Roads adversely affect the environment in four main ways: they cause animal deaths, alter the vegetation and water flow, and adversely impact species behaviors such as migration.

Legal Challenges

• A recent land donation to the Rock Island Preserve may have sufficiently altered the environmental context of the extension to allow opponents to challenge the DSEIS with a changed conditions argument.

• If, since the publication of an EIS, newly emerging conditions or information would present a significantly different picture of the likely environmental impact of the project, courts may require the agency to prepare a supplemental EIS.

• However, because courts analyze such a decision under a standard of review very deferential to the agency, such a challenge would be very difficult.

• Section 138 of the Federal Aid Highways Act, commonly referred to as Section 4(f), prohibits the DOT and the FHWA from utilizing publicly owned parkland (including wildlife refuges and recreational areas) for federally funded highway projects unless there is no prudent and feasible alternative.

• The FHWA’s regulations implementing the Section 4(f) requirements further demonstrate this purpose by requiring that the FHWA defer to the entity charged with managing the area.

• In the present case, the FHWA determined the Section 4(f) did not apply to the Preserve and has not applied the Section 4(f) requirements to the Preserve. However, the Conservation Board, the Preserve’s managing entity, contends that the Preserve is Section 4(f) property because of its function as both a wildlife refuge and a recreational area. As a result, a possible legal challenge exists, and the FHWA may be required to perform a Section 4(f) analysis.
Alternatives to Legal Challenges

- Though the EIS preparation process involved several opportunities for public participation, the process was ultimately undermined by mutual distrust from extension opponents and from planning officials.
- Opponents of the extension were suspicious of the IADOT’s commitment to meaningful public participation, and believed that information had been misrepresented in order to make a stronger case for the preferred alternative.
- A Cedar Rapids planner believes the gaps in the public participation process stemmed primarily from the extension opponents’ failure to take advantage of existing participation channels to communicate their concerns and believes the Cedar-Wapsie Sierra Club is actually being manipulated by a few individuals in order to make it appear that public support for their position is wider than it really is.

Recommendations

- The Cedar-Wapsie Sierra Club should prepare to challenge the proposed alignment for the Highway 100 extension by arguing that the Iowa DOT needs to perform a Section 4(f) analysis. This is a potentially successful challenge that could delay the road.
- The Cedar-Wapsie Sierra Club should initiate a media campaign to set straight its position on Highway 100.
- In the long-run, because of the time, expense, and uncertainty inherent in pursuing a primarily litigation-based strategy, a proactive coalition approach would be more effective.
- A coalition and long-term planning approach will allow the Cedar-Wapsie Sierra Club to use its resources more effectively. It will also help ameliorate perceived gaps in the public participation process and create mutual trust among the group and the decision makers in the region’s development process.
INTRODUCTION

Background to the Research Question

Our client is Wallace Taylor, legal counsel to the Cedar-Wapsie Sierra Club. Mr. Taylor has asked us to assist him in his legal challenge, made on behalf of the local Sierra Club, to the proposed expansion of Highway 100 in Linn County. The Iowa Department of Transportation (IADOT) completed the Draft Supplemental Environmental Impact Statement (DSEIS) in 2001, and a Final Environmental Impact Statement (FEIS) is forthcoming. Mr. Taylor initially asked us to help him analyze the “purpose and need” section of this DSEIS to better equip him to challenge the FEIS on these grounds when it is issued. However, our research has led us to conclude that such a challenge would likely be unsuccessful, because of the permissive legal standard under which courts review the purpose and need of any EIS. Therefore, in order to better serve the goal shared by Mr. Taylor and the Sierra Club of preventing the potentially harmful ecological and development effects of the highway expansion, we focused our efforts on the legal and planning issues surrounding a piece of land adjacent to the proposed highway expansion corridor that was recently donated to the Linn County Conservation Board.

The preferred corridor for the Highway 100 extension is to begin directly north from Highway 30 at 80th Street. It would curve east and join an abandoned railroad-right-of-way over the Cedar River. It would then meet up with the existing Highway 100 at Edgewood Road. Three other main alternatives were presented in the EIS but eliminated from consideration mainly because they do not follow the abandoned railroad right-of-way and would require a new Cedar River crossing (DSEIS 2001). Following the abandoned right-of-way, however, means that the Highway 100 extension will bisect the Rock Island Preserve. The three alternatives that avoid the abandoned railroad corridor and the Preserve are as follows (See Map 1):

1) The County Home Road Alternative
2) The Tower Terrace Road Alternative
3) The Blairs Ferry Road Alternative

According to the EIS, the County Home Road and Tower Terrace Road Alternatives were rejected not only because they would require a new railroad crossing but because these
alternatives are too far north. The Blairs Ferry Road Alternative was rejected because it would require a new crossing and acquisition of land from the Chain Lakes County Park (DSEIS 2001). The Linn County Conservation Board and the EPA have suggested alternatives that were not considered in the study. These routes avoid the Rock Island Preserve by crossing the river just north of the preserve.

When the project was first proposed, the preferred highway expansion corridor ran adjacent to a conservation district directly to the south, the Rock Island Preserve. In 2002, a nearby parcel of land was donated to the Rock Island Preserve. This donated land is contiguous to the proposed highway on the road’s north side, resulting in the proposed highway expansion corridor bisecting the conservation district. The City of Cedar Rapids initiated litigation over the donation, asserting that it has the right to veto the donation because it is within two miles of the city limits. Recently, a district court ruled in favor of the Linn County Conservation Board, rejecting the city’s argument that it should have had the power to approve of the donation of land. While the city could still influence the outcome of this parcel of land at the state level when the State Preservation Board decides on whether to officially designate the donated land a “preserve,” to be added to the Rock Island Preserve, we chose to look at the parcel as if it were already part of the Preserve, as the Linn County Conservation Board has designated the land as part of the Preserve and manages it as a whole. We focused on how the Cedar-Wapsie Sierra Club can use this newly expanded conservation district to mount a legal challenge to Highway 100. Moreover, we focused on how the attendant environmental ramifications of building a road through the Preserve and the political interests that have played a part in the proposed Highway 100 can inform and instigate long-term planning and participation strategies for the Sierra Club—strategies to help the Sierra Club play a more pro-active role in fostering highway development that is sensitive to local environmental and land use concerns.

**Research Question**

The research question that emerged from this project was two-fold:

- First, we examined possible legal challenges that the Sierra Club could bring. We sought to determine whether the donation of land to the County Conservation Board and the subsequent expansion of the conservation district could constitute changed conditions, which would effectively render any current
EIS inadequate and thus stop the highway extension for the time being. Additionally, we analyzed the possible application of Section 4(f) of the Department of Transportation Act of 1966 to the land at issue.

- Second, we sought to provide Mr. Taylor and the Sierra Club with a broader, proactive planning strategy. More specifically, we determined how the Sierra Club could most effectively advocate for a highway planning strategy that adequately considers conservation and sprawl issues given the development goals in Linn County and Cedar Rapids.

**Methodology**

In order to answer the research question proposed and address the concerns of our client, our methodology involved both a legal analysis of the EIS, as well as a broad-based planning analysis of the need for Highway 100's extension.

Part of our report entailed extensive legal research about how to challenge an EIS. More specifically, we conducted legal research about how to challenge an EIS based on changed conditions. We determined the relevant legal standards and found cases that do and do not support the preparation of a supplemental EIS. Additionally, we analyzed the application of § 138 of the Federal Aid Highways Act (FAHA)—commonly referred to as Section 4(f)—to determine its applicability to the current situation. The legal information presented in our report should give Mr. Taylor a prepared argument that he can use in order to challenge the FEIS for the proposed extension in court, as well as identify any potential claims under Section 4(f).

Underlying Mr. Taylor's concerns about the proposed Highway 100 extension is the notion that the "purpose and need" for the road, as articulated in the DSEIS, is inadequate to justify the extension. While it may be difficult to legally challenge the DOT's "purpose and need" for the road, we developed a broad-based planning analysis that will help the Sierra Club participate proactively in future decisions about other highway projects. Our analysis entailed research about the political interests involved in Cedar Rapids and Linn County highway planning. Our analysis also entailed a critical look at Linn County and Cedar Rapid's comprehensive plans in order to determine how the entire area intends to develop. This research helped us determine why the city believes the road is necessary in this location and why some citizens and the Conservation Board feel that the EIS's "purpose and need" is misguided. We
examined how a new road could affect development in the periphery, as well as the effectiveness of public participation in Linn County and Cedar Rapids development decisions and examined ways public participation could be improved.

Additionally, we look at the Rock Island Preserve. We compiled information about the conservation district's species and habitat. We determined which species exist in the conservation district, the habitat these species require, and the effects of habitat bifurcation.
THE FINDINGS

The Highway 100 Proposed Corridor

The Alignment

Both Linn County and the City of Cedar Rapids have seen steady population growth since the 1990s. Cedar Rapids, however, has attracted a decreasing proportion of total County growth, as new growth in Linn County is occurring in the smaller cities adjacent to Cedar Rapids, such as Marion, Hiawatha, and Robins (Comprehensive Plan 1999). According to the Cedar Rapids Comprehensive Plan, this growth outside of the city will continue to place demands on the city’s street network, especially the outer streets, because those living outside of the city commute into Cedar Rapids (Comprehensive Plan 1999). Furthermore, Cedar Rapids realizes that these smaller adjacent communities limit where growth in Cedar Rapids can occur. Marion lies directly to the northwest of Cedar Rapids, and Hiawatha and Robins are directly to the north of Cedar Rapids, constraining growth in those directions. Thus, the additional 27,867 dwelling units that the city projects it will need by 2030 will have to be built elsewhere (Comprehensive Plan 1999). Sewer constraints limit growth to the south, leaving the west and northwest parts of the city as the targeted locations for growth (Wheatley interview 2004). The 1990-2030 Population Change Map in the comprehensive plan indicates that the west side of the city will experience a substantial amount of growth in the next thirty years (Comprehensive Plan 1999).

When the Highway 100 extension was first suggested, the extension was supposed to provide a beltway around the city. Now, the proposed Highway 100 alignment is intended to connect the anticipated development on the west side of Cedar Rapids near Highway 30 with the north side of Cedar Rapids and Marion (DSEIS 2001). The proposed alignment for Highway 100 is preferred because it is a fairly direct route from the Northwestern part of the city to the Northeastern part of the city (See Map 1 above). It is the route that lies closest to Cedar Rapids and, according to the EIS, “enhance[s] public safety and convenience” (DSEIS 2001, p. 2-1). However, it is also the route that will run through parcels of the Rock Island Preserve (See Map 2).
The Rock Island Preserve

The backdrop to the controversy surrounding the placement of Highway 100 is the Rock Island Preserve (Preserve). In 1962 the Railroad Company deeded about twenty acres of its land to the Linn County Conservation Board. The deed, however, required the Board to manage the land for the public as a botanical and biological preserve. It was to be kept inviolate and have very few developed facilities (Deed 1962). In 1978 the Rock Island Preserve was dedicated, pursuant to Iowa Code Chapter 465C, into the State of Iowa Preserve System as a nature preserve. In 2002 James Properties, Incorporated donated land near the Preserve to Linn County for the purpose of including the land into the Preserve (Deed 2002). The Linn County Conservation Board now has jurisdiction over the land and passed a resolution designating the donated land as a preserve for the protection of the natural habitat (Linn County Resolution 2002). The newly donated land adds a significant amount of habitat to the Preserve. Research on flora and fauna counts are in progress to provide the Conservation Board with information about the cumulative impacts that the Proposed Highway could have on the Preserve.

To effectively manage the expanded Preserve, the Linn County Conservation Department has divided the area into “management zones.” These zones contain a variety of rare habitat, such as dry upland sand prairie, sand prairie with associated savanna, wetlands, and wooded areas with wet habitat (Management Plan 2003). The original 20-acre portion of the Preserve contains a rich diversity of unique and rare habitat. Not only does the 20-acre portion contain woodlands and wetlands, it also has upland sand prairies, lower sand prairies, and sand prairie and savanna ecosystems, all of which are native to Iowa and rare (Management Plan 2003). The newly donated portion of the Preserve is much larger. A significant portion of the donated land runs adjacent to the Cedar River and is zoned as a floodplain area. However, the donated land expands eastward and contains wetlands and sand prairie as well. Significantly, the part of the newly donated land that is classified and zoned as sand prairie is adjacent to part of the old preserve that is zoned as sand prairie (See Map 2 – #2, coral area; #3, yellow area). The proposed Highway would bisect these two prairie zones.

Bisection of the sand prairie parcels raises concerns about the unique species found in these prairie areas. Researchers have identified the state-threatened Byssus skipper (problemabyssus) in both of these sand prairie parcels (Management Plan 2003). A concern for researchers and the Conservation Board is that the Byssus skipper moves between these two prairie parcels
and the proposed Highway will pose a physical barrier to this movement (Olsen 2002). The Byssus skipper has also been identified on the northern part of the original preserve, which is parallel and close to the proposed Highway 100 corridor (Management Plan 2003). In addition to the Byssus skipper, the Preserve has a rich diversity of butterfly and skipper populations. Since the early 1990s, researchers have found sixty-five different species of butterfly and skipper populations, more than half of all the species known to occur in Iowa (Olsen 2002). This diversity in butterfly and skipper species has not been matched at any other site in the state (Olsen 2002). While only the Byssus skipper is on the state’s threatened and endangered lists, researchers have identified the following rare butterfly species in the Rock Island Preserve:

- White-M Hairstreak (which has only been sighted twice in Iowa in the last forty years)
- Scalloped Sooty Wing (which has only been sighted in eleven counties in the last forty years)
- Zabulon Skipper (which has been sighted less than ten times in Iowa in the past forty years (Olsen 2002).

The proposed Highway 100 corridor could also create a physical barrier to the migration of another unique species found in the preserve—the Blandings turtle. The Blandings turtle is a threatened species in Iowa, but the Preserve provides ideal habitat for these turtles. The wetlands in the preserve provide the needed microhabitats for the turtles, and these wetlands are in close proximity to sand prairies, which are suitable for nesting (VanDeWalle 2003). Researchers are encouraged by the Blandings population in the Preserve because three different age classes of Blandings turtles were identified, suggesting that, unlike most of the other known populations in the state of Iowa, reproduction is occurring within the Preserve (VanDeWalle 2003). In the original Preserve, Blandings turtles have been identified in most of the different habitat areas in the original preserve, spanning from the eastern prairie edges to the western wetland edges (See Map 2 – #5, green area). Two Blandings turtles have also been found in the wetland/ pond area in the newly donated acreage (See Map 2 – #4, purple area). This wetland is actually a constructed pond and is isolated from the rest of the newly donated acreage. Researchers are studying how these turtles found in the new portion of the Preserve are related to the Blandings turtles found on the other side of the proposed corridor in the original Preserve. Researchers speculate that the turtles are migrating in between the pond in the newly donated land and the prairie and wetlands in the original preserve; however, not enough is yet known (VanDeWalle
2003). If the turtles migrate between these zones, then the proposed highway will create a barrier.

In addition to the unique species of animals located in the Preserve, the Preserve is host to an array of prairie plants. In the last two years, researchers have identified a total of 363 plant species, 95 percent of which are native to Iowa (Cady 2003). Four of these species are on the state’s “special concern” plant species list, meaning problems with the species’ distribution are suspected but not yet documented:

- Northern Adder’s-tongue Fern
- Hairy Aster
- Soft Rush
- Great Plains Ladies-tresses Orchid (Cady 2003).

In addition, several other uncommon species are found in the Preserve, such as Wormwood, Northern Rush, and a rare moss species (Horton 2001).

**Development in Cedar Rapids and Linn County**

The City of Cedar Rapids supports the proposed alignment for the Highway 100 extension. In August 2001, the Cedar Rapids City Council passed Resolution Number 1953-8-01 in support of the proposed extension. The resolution articulated the following benefits:

- Reduction of anticipated congestion;
- Improved safety on the existing road network;
- An efficient connection between the westerly residential, commercial, institutional, and industrial areas of Cedar Rapids and northeastern areas of Cedar Rapids and Marion;
- An essential transportation improvement to accommodate planned growth on the western edge of Cedar Rapids;
- An alternative route in case of traffic stoppages on Interstate 380 (Cedar Rapids Resolution 2001).

All five of the Cedar Rapids City Council members serving at that time approved the resolution. Three of those members remain on the council and still support the road. The new Mayor, Mayor Pate, also supports the Highway 100 extension corridor (Pate 2002). Mayor Pate contends that the current proposed corridor will be part of the “smart planning” process and will be the most effective way to use the land for the benefit of the city, county, region, and state.
(Pate 2002). The Highway 100 proposed corridor is indicated on the city’s Future Land Use map and its Road Classifications map (Comprehensive Plan 1999). While the Comprehensive Plan states that the transportation system should preserve environmental and historical resources, the goal is not clearly linked to a stated objective or policy within the plan (Comprehensive Plan 1999). The city’s transportation plan has a specific objective to “maintain an adequate level of service on all public roadways to accommodate the safe and efficient flow of traffic” (Comprehensive Plan 1999). Thus, Highway 100 expansion could be justified by this objective if the city expects planned growth in the Northwest part of town to strain the road network.

While the city considers the proposed Highway 100 corridor a necessary link in the road network, the Linn County Conservation Board considers the proposed Highway 100 corridor a threat to the Rock Island Preserve’s rare ecosystem. The Conservation Board sees the Preserve as a relic of the once-abundant Iowa prairie landscape. Before human settlement, the Iowa landscape was 85 percent prairie, containing over 30 million acres. Since that time the state has lost 99.9 percent of this landscape, meaning less than one-tenth of one percent remains (Iowa Association of Naturalists 2001). The Rock Island Preserve is part of this tiny percentage, and the Conservation Board considers its preservation imperative and is concerned about the potential impacts of the road on the preserve (although they are not fully understood) (Management Plan 2003). The Conservation Board takes the position that it would be “remiss in its duty if it did not reaffirm the maximum protection for the Rock Island Preserve and the Board’s fiduciary obligation to protect this area” (Linn County Conservation Board 2000). However, the contention about the road is not whether or not to build a highway connecting Highway 100 to Highway 30, but rather about where to place the highway extension (Biechler interview 2004). The Conservation Board believes that a different, more northern corridor for the road could serve the same purposes, mainly to connect the northwestern and northeastern parts of Cedar Rapids, without disturbing the Rock Island Preserve (Biechler interview 2004). The EPA agrees with the Board. In its 2001 comments submitted to the Iowa DOT in response to the DSEIS, the EPA stated that the city’s adherence to the abandoned railroad corridor, which now bisects pieces of the Rock Island Preserve, “may be restricting the planning view” of the project’s proponents (USEPA Comments 2001).

The city contends in response that a more northern route would not meet the purpose and need of the Highway 100 expansion. According to the Long Range Planning Manager, Dean
Wheatley, because the city plans on growing to the north and west, a road in the current proposed corridor will most efficiently connect this new development to development on the northeast side of the city (Wheatley interview 2004). He states that if the route is placed further north, it would then have to go up to Tower Terrace Road, the next nearest river crossing, and that route would be too far removed for people in the northwest part of town. Thus, traffic congestion on the current road network would not be lessened. The City of City Rapids Development Department sees the current proposed corridor as a necessary part of its long-range planning goals. They are trying to be proactive and create a neo-traditional, loose-grid road network throughout the city, and the proposed Highway 100 corridor is necessary to accomplish this proactive planning (Wheatley interview 2004).

Another factor in the city’s role and interest in the proposed expansion of Highway 100 is the relationship between the city and the metropolitan planning organization, the Linn County Regional Planning Commission (LCRPC). LCRPC is organized as a regional transportation planning authority. The voting structure of the LCRPC is weighted such that Cedar Rapids is the majority voter on the LCRPC with 69.118% of the county’s population (Linn County Regional Planning Commission Bylaws 2001). As a result, Cedar Rapids has the ability to shape the transportation policy decisions brought and decided before the commission (Linn County Regional Planning Commission Bylaws 2001).

In 1995 the LCRPC put together a Park and Outdoor Recreation Plan (PORP) for the County. In this document, the LCRPC notes the significance of the Preserve (PORP 1995, 18). The PORP also provides a detailed discussion of the Cedar River Greenbelt, along which the 2002 donation of land to the Preserve is situated (PORP 1995, 25). The recommendation of the PORP is to “control development that occurs in the county together with preserving critical areas such as floodplains, historic landmarks, fragile geological formations, steep slopes, woodlands, and wildlife habitats” (PORP 1995, 27). This plan conflicts with the LCRPC’s current position on Highway 100.

Linn County is also an important player in the growth and development of this region. The Planning Department for Linn County (County), though the Highway 100 expansion would have a significant effect upon them, has had a very minor role in this project. This is largely the result of Cedar Rapids’s strong position on the LCRPC. However, the County does have a very
strong comprehensive plan that is particularly concerned with preventing sprawl and reducing its adverse environmental impacts.

The County recently passed an Interim Development Ordinance (IDO) to implement the County’s Rural Land Use Plan (RLUP), approved in 2000. The RLUP specifically identifies that the County intends to encourage smart growth and discourage sprawl (RLUP 2000, 14). This policy position was a change from previous growth plans which had “inadvertently encouraged sprawl” (RLUP 2000, 14). In particular, the RLUP endeavors to encourage higher density for urban and suburban development and in-fill in current residential developments (RLUP 2000, 14). The main tool with which the RLUP will ensure this type of development occurs is the minimum level of services (MLS) requirement.

The MLS is a framework that requires specific levels of water, wastewater, transportation and fire protection infrastructure before any development can be built within the County (RLUP 2000, Attachment A). Factors taken into account in the MLS analysis include suitability of an area for development, the compatibility of the development with the current uses, and the sustainability of the region’s development (RLUP 2000, 24-25). The goal of the MLS is to promote development of appropriate densities in areas of the County that may at some point be annexed and/or connected to city services (RLUP 2000, 20). The urban service area (USA) is an area on the fringe of Cedar Rapids that the County has identified as meeting the MLS criteria for development (so long as certain density and services requirements are met) (RLUP 2000, 30). The USA serves as a pseudo growth boundary around Cedar Rapids designed to facilitate development near the urban area and prevent sprawl development. From a practical perspective, the effect of the MLS is to limit leapfrog growth.

When roads such as Highway 100 are built the increased value of land makes it more appealing for land owners to sell, and the possibility of a high profile location and easy access to transport routes and customers makes development along roads very appealing to commercial interests (Forkenbrock 2002, 24-25). The effect of the Highway 100 expansion would create an area of in-fill in the county which would be the focus of growth for Cedar Rapids- a result which is consistent with the RLUP. In addition, investments in infrastructure “have the potential to play a substantial role in how future land use patterns unfold” (Forkenbrock 2002, 34). Coordination and planning are necessary to ensure sufficiency and efficiency of services provided, so that development does not occur in areas where it can not be supported (Carruthers
In the present case regarding the Highway 100 expansion, the LCRPC is attempting to proactively shape the development of the metropolitan area of Cedar Rapids. Here, the plan is clearly to shape the course of development by using the expansion of Highway 100 to facilitate and plan for growth in this area of the County. However, an effective effort by the LCRPC must also take into account the interplay with the County, specifically the need to coordinate development and open/park area.

In addition to growth management strategies, the County also has a goal of preserving the environment. Of particular concern to the County is the preservation of good agricultural land and the water quality of the County (RLUP 2000, 14-15).

The RLUP and the IDO passed to implement it are still fairly new. As a result, one of the most effective components of the RLUP has yet to be fully utilized: the development of city/county strategic growth plans (CCSG) (RLUP 2000, 41). Though the County has coordinated CCSGs with several of the smaller communities, it has yet to develop a CCSG with Cedar Rapids. The implementation of a CCSG, coordinated with a revised and updated PORP from the LCRPC, would seem to be the most effective strategy to manage growth in the County. Such a coordinated effort could identify the areas where development, preservation, and transportation systems would be best suited. This coordination would be beneficial because development is going to occur no matter what type of policy approach is taken to address and shape the growth. The best approach is therefore a coordinated effort to shape the development in a way that maximizes benefits while minimizing adverse impacts.

**Impact of Roads**

The Highway could affect the Preserve directly by altering the ecology of the habitat. It could also affect the Preserve indirectly by altering the built environment, which would then interact and affect the natural environment in the Preserve. An understanding of how roads impact the ecology of the surrounding landscape as well as the built environment will be an important tool for the Sierra Club and other citizen groups as the Highway 100 project evolves and as these coalitions form to influence the existence and placement of future highway projects.
Effects of Roads on Natural Habitat

Highways affect the natural environment in at least four identifiable ways. First, road kill is an obvious consequence. Over one million vertebrates per day are killed on U.S. roads, and roads near wetlands have the highest road kill rates (Forman & Alexander 1998). Second, highways can alter the vegetation along roadsides. Seeds that are carried and deposited by passing vehicles are often not native to the area and are disturbance-tolerant. Roadside maintenance like mowing often leads to disturbance-tolerant species as well, which are often non-native. Additionally, the runoff and open space next to roadsides create moist soils and ample light that allow these non-native species to flourish (Forman & Alexander 1998). Third, highways alter water flows and thus alter sediment and chemical transport. Roads not only change surface water because of the increase in paved surfaces but they also change subsurface water flow if the road is located in wetland soils, blocking drainage patterns and groundwater flows. This change in water flow increases the rate of erosion, which reduces percolation and increases deposits of sediment (Forman & Alexander 1998). Additionally, chemicals are introduced by vehicles and deicing and are easily transported because of run-off from the roads. Deicing of the roads is a major input of NaCl and other deicing agents can also increase the mobility of heavy metals. Studies have shown that elevated concentrations of heavy metals in grass tissue are found within ten meters of the road and can be found up to 25 meters from the road (Forman & Alexander 1998). NaCl accumulates in soils within five meters of the road, and road salt can facilitate the spread of disturbance-tolerant, non-native species (Forman & Alexander 1998). Finally, roads have an impact on animal behavior. The noise and light cause animals to avoid the road. Possible reasons why the noise and light affect animal behavior are hearing loss, more stress hormones, interference with communication during breeding, and deleterious effects on food supply near roads. Road also create a physical barrier to movements.

It is the altered animal behavior that causes concern in a situation like Highway 100, where roads will bisect natural habitat. The physical barrier paired with animals’ road avoidance cause a natural habitat to become disconnected and fragmented. Habitat fragmentation occurs when a larger, contiguous tract of land is divided and a network of habitat patches remains behind, isolated from one another (Primack 2000). Isolation reduces the likelihood of survival for many populations of species. A “metapopulation” is a local population of a species that is comprised of various smaller populations. These smaller populations stay connected through
interchange of individuals. Most species’ individuals, at some point in the life cycle, migrate away from their natal areas to find a new range of habitat or join another population within the metapopulation. This dispersal is necessary to reduce competition and interbreeding, and it allows the colonization of a more hospitable habitat and formation of a new population—one that can thrive even if other small populations in the area are dwindling (Peck 1998). Fragmentation hinders dispersal of species within the larger area and thus their ability to adjust and recolonize. Also, fragmentation can affect a species at an individual level, separating an individual from its feeding or breeding grounds (Peck 1998). Not only does fragmentation result in physical and biological isolation of species, but it also alters the microclimate within those patches. Edge habitat—habitat adjacent to the road or physical barrier—increases, meaning more habitat is exposed to the negative effects of roads discussed above, like invasive species, changed hydrology, introduction of chemicals, and more wind and sunlight (Peck 1998).

More specifically, fragmentation can have negative effects on turtles and butterflies, species that are of concern in the Highway 100/Rock Island Preserve situation. Turtles spend much of their time in water and wet areas but will migrate to find a terrestrial site for laying eggs. Little is known about their migratory paths, and therefore protecting the full range of habitat needed for a turtle’s survival, including migratory paths, can be a challenge (Peck 1998). Species that undergo metamorphosis also require at least two types of habitats and thus need the ability to travel in between the habitats (Peck 1998). Butterflies, therefore, are particularly challenged with the proliferation of roads through their habitat. Furthermore, several studies have shown that butterfly populations are particularly threatened from fragmentation of their habitat because butterflies are less likely to disperse members of their population if they do not have connected areas of flowering vegetation (Settele 1996). Isolation therefore reduces the probability of dispersal and recolonization of various butterfly species.
POSSIBLE LEGAL CHALLENGES

There are two possible legal challenges the Sierra Club could make to the current alignment of the proposed Highway 100 expansion project: one under the National Environmental Policy Act and one under Section 4(f).

Changed Conditions Argument under NEPA

Since the DSEIS was published in September 2001, the impact of the extension on the Rock Island Preserve has been thrown into question by the James Inc. land donation. This donation significantly increases the size of the Preserve and changes the relationship between the Preserve and the extension. Where the extension formerly would have bordered the Preserve, it would now bisect the Preserve. This change in circumstances may be sufficient to require IADOT to complete a second DSEIS examining the impact of the highway on the Preserve, as enhanced by the donated land.

Changed Conditions Doctrine

If significant new information or new circumstances come to light after an agency publishes an EIS, the agency may be required to publish a supplemental EIS examining the implications that new information or circumstance is likely to have for the proposed action. This doctrine of changed conditions, first articulated by the U.S. Supreme Court in Marsh v. Oregon Natural Resources Council acknowledges that although NEPA does not explicitly address post-decisional supplemental environmental impact statements, such documents may nevertheless be needed to ensure that federal agencies comply with the spirit of NEPA (490 U.S. 360 (1989)). The Court held that “[i]f there remains ‘major federal action[n] to occur, and if the new information is sufficient to show that the remaining action will ‘affect the quality of the human environment’ in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared.” (Marsh at 374, quoting NEPA, 42 U.S.C. § 4332(2)(C)). Subsequent appellate courts have construed this test to mean that where new circumstances present a seriously different understanding of the proposed project and its impacts from what the agency originally expected, the agency must prepare a supplemental EIS (Sierra Club v. Froehlke, 816 F.2d 205 (5th Cir.1987), Hickory Neighborhood Defense League v. Skinner, 893
F.2d 58 (4th Cir.1990)). The regulations issued by the Council on Environmental Quality reiterate this requirement. These regulations state that agencies must prepare a supplemental EIS if:

(i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or
(ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

(40 C.F.R. § 1502.9(c)(1)(i) & (ii) (1984)).

The new information in this case is the fact that the size of the Preserve is now roughly double what it was at the time the 2001 DSEIS was prepared, contains a new wetland that may serve as habitat for a threatened species, and that the extension would now run directly through the Preserve, rather than bordering it, posing a serious threat to the animal species in the Preserve. Additionally, new field work, discussed in more depth above, indicates that several rare and “special concern” plant species have been identified in the Preserve since the September 2001 DSEIS (Cady 2003, Horton 2003). This new information means that the September 2001 DSEIS underestimates both the current biological value of the Preserve, and the magnitude of the impacts the extension would have on species mortality within the Preserve. Since funds for Highway 100 have yet to be allocated, and construction has not yet begun, the “major federal action” has yet to occur, and the agency should be required to complete a new supplemental EIS that would examine the extension’s impact on the preserve in light of the land donation.

**Standard of Review**

The primary obstacle to successfully bringing a suit based on the doctrine of changed conditions stems from the standard of review the court must apply to these cases. *Marsh* makes clear that courts should review an agency’s decision as to whether a supplemental EIS must be prepared on an arbitrary, capricious, or abuse of discretion standard. This highly deferential standard inquires only as to whether the agency’s decision was based on the relevant factors, and whether there was a clear error of judgment. The Administrative Procedure Act reinforces that this is the appropriate standard of review for this issue (5 U.S.C. §706(2)(A)). This standard basically requires that the agency base its decision on consideration of relevant factors (Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416, (1971)), and on a rational basis (Bowman Transportation, Inc. v. Arkansas-Best Freight System, Inc., 419 U.S. 281, 285, 290 (1974)). However, it would be difficult to argue that the fact that the highway would bisect a
nature preserve that is home to several threatened or rare species is irrelevant to the environmental impact of that highway. The highway would almost certainly lead to increased mortality among mobile species, such as the Blandings turtle, although the extent of that increase is unknown. In fact, it is precisely the uncertainty surrounding the likely extent of this increase that militates in favor of requiring a new supplemental EIS. However, a judge might find that a decision not to prepare a new supplement does not constitute clear error. If that were the case, under Marsh, the challenge would fail.

**Illustrative Case**

One illustrative case is Dubois v. U.S. Department of Agriculture. (102 F.3d 1273 (1st Cir.1996)(N.H.)). This case involved the design of a skiing facility in a national forest. The facility design was significantly expanded and changed from the design contemplated by the EIS such that the extent of the environmental impact had not been discussed in the EIS. The court found that because the significance of these changed conditions, the agency’s decision not to examine them in a supplemental EIS was arbitrary, capricious, and an abuse of discretion. This situation is similar to the Highway 100 extension, where the change in conditions has resulted in a completely different relationship between the Preserve and the highway. The Cedar-Wapsie Sierra Club should argue that the DSEIS’s failure to discuss the environmental impact of this change in a supplemental EIS satisfies even the deferential standard established in Marsh.

**Possible Challenge Under Section 4(f)**

In addition to fulfilling requirements under NEPA, the Department of Transportation (DOT) must also comply with certain requirements for any federally funded transportation projects or programs that may use (actually or constructively) publicly owned parkland. This requirement was first mandated in the 1966 Transportation Act, under Section 4(f). Though the 1966 Act has since been superseded by subsequent versions of federal transportation statutes, the requirements under the modern statutes are still referred to as Section 4(f) requirements. In fact, the DOT has codified this understanding, noting that “Section 4(f) . . . [r]efers to 49 U.S.C. § 303 and 23 U.S.C. § 138” (23 C.F.R. § 771.107(e)).
Section 4(f)

The requirements of the Section 4(f) analysis mandate that the Secretary of Transportation (the Secretary) may only approve a federally funded transportation program or project:

requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance . . . only if:

(1) there is no prudent and feasible alternative to using that land; and

(2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge . . . from the use.


This language is present in two different statutes: one placing a general obligation on the Secretary, and the other placing a more specific obligation on the Secretary in regards to funding under the Federal-Aid Highway Act. As the language expressly provides, these statutes apply to any “public park, recreation area, or wildlife and waterfowl refuge” that is “publicly owned land” which is “of national, State, or local significance.” This language indicates Congress’s broad intent to protect public natural resources from adverse impacts caused by transportation projects.

Though the breadth of these statutes may not seem significant, the impact of the requirements of Section 4(f) are a heavy burden on highway planners (Nober 1990, 248). In particular, permitting the use of parkland for highway projects only when there is no prudent or feasible alternative precludes the use of land that the government already owns (Nober 1990, 248). In addition, the use of Section 4(f) property would generally minimize the amount of displaced persons and political opposition from NIMBY concerns (Nober 1990, 248).

Unlike the language of NEPA, the Section 4(f) language contains substantive and procedural requirements. By requiring that there be no “prudent and feasible alternative,” Section 4(f) makes it necessary for the Secretary to ensure that the use of park land for federal highway projects only occurs where it is impossible to do otherwise. Section 4(f) effectively “provides opponents with a tool to challenge the substantive decision that no alternative to taking parklands exists” (Nober 1990, 234). This is a major distinction from the NEPA requirements, which are only procedural and provide no substantive protection (Nober 1990, 229).

Regulations Implementing the Statute

In addition to the statute, the Federal Highway Administration (FHWA) has implemented regulations regarding the execution of Section 4(f) requirements under 49 U.S.C. § 138. These
regulations place the statute’s substantive duty on the FHWA Administrator. In 23 C.F.R. § 771.135 the FHWA regulations describe the circumstances in which Section 4(f) applies, as well as how it is to be applied. These regulations specifically state that property which triggers Section 4(f) requirements “shall be evaluated early in the development of the action when alternatives to the proposed action are under study” (23 C.F.R. § 771.135(b)). Furthermore, these regulations make clear that though Section 4(f) requirements are not triggered where the use has been found to be insignificant, “[i]n the absence of such a determination, the section 4(f) land will be presumed to be significant” (23 CFR § 771.135(c)). These regulations further demonstrate Congress’s desire to defer to the federal, state, or local officials who have jurisdiction over the property in question.

In determining whether or not property triggers Section 4(f) requirements, the FHWA regulations explicitly provide that deference should be given to the determination of the governmental agency responsible for managing the area in question:

Where Federal lands or other public land holdings . . . are administered under statutes permitting management for multiple uses, and, in fact, are managed for multiple uses, section 4(f) applies only to those portions of such lands which function for or are designated in the plans of the administering agency as being for, significant park, recreation, or wildlife and waterfowl purposes. The determination as to which lands so function or are so designated, and the significance of those lands, shall be made by the officials having jurisdiction over the lands. The Administration will review this determination to assure its reasonableness. (emphasis added).
23 C.F.R. § 771.135(d)

This regulation emphasizes that the designation of public lands as a park, recreational, or wildlife and waterfowl refuge is not per se determinative; rather, the functional use of those lands is also to be taken into consideration. Furthermore, this regulation also empowers local managing agencies by providing them with the first opportunity to determine if the property in question triggers Section 4(f) requirements, though it does reserve to the Administrator a right to review this determination.

The regulations contained at 23 CFR § 771.135 also articulate the standards to be applied in situations of constructive use. Constructive use differs from actual use in that constructive use would not actually require that a road be built on Section 4(f) property. However, due to the proximity of the road, the impacts on the Section 4(f) property would result in impacts sufficient to give rise to a constructive use. At 23 CFR § 771.135(p) FHWA provides that noise, aesthetic impairment, accessibility impairment, vibration impact, and ecological intrusion may be
characterized as constructive uses of Section 4(f) property. The regulations note that constructive use must substantially impair the use of the Section 4(f) property, which “occurs only when the protected activities, features, or attributes of the [Section 4(f) property] are substantially diminished” (23 C.F.R. § 771.135(p)(2)). In effect, the regulations acknowledge that where no actual use of Section 4(f) property occurs, under certain circumstances Section 4(f) may still be triggered. Again, this application of a constructive standard further evidences FHWA’s acknowledgement of the breadth and scope of Section 4(f) requirements.

Another significant component of the FHWA’s regulations is the protection of pending projects from being slowed, delayed or halted as a result of property which is redesignated as Section 4(f) property after the project is underway. Specifically, the regulations provide that

[designations of park and recreation lands, wildlife and waterfowl refuges, and historic sites are sometimes made . . . late in the development of a proposed action. . . . [T]he Administration may permit a project to proceed without consideration under section 4(f) if the property interest in the section 4(f) lands was acquired for transportation purposes prior to the designation . . . if an adequate effort was made to identify property protected by section 4(f) prior to acquisition.”

23 CFR § 771.135(h). (emphasis added).

The purpose of this section is clear: to prevent transportation projects from being halted for lack of a Section 4(f) analysis where a property has been designated as Section 4(f) property only to stop or delay the project. As a result, it is very important that Section 4(f) property be designated or used for a Section 4(f) purpose so as to fall within the rubric of the statute.

Application of Section 4(f)

The courts have generally broadly construed the requirements under Section 4(f). In fact, some have even noted that “prevalent judicial interpretation of section 4(f) narrows DOT’s discretion to approve highway projects that threaten parks” (Miller 1987, 663). In Citizens to Preserve Overton Park, Inc., v. Volpe, the Supreme Court set the stage for this deferential standard by noting that “the very existence of the statutes indicates that protection of parkland was to be given paramount importance” (401 U.S. 402, 412 (1971) (rev’d on other grounds 494 F.2d 1212 (6th Cir.1994)). The majority of suits filed to enforce Section 4(f) requirements focus on whether or not there is a prudent and feasible alternative to placing a road on Section 4(f) property (see generally Adler v. Lewis, 675 F. 2d 1085 (9th Cir. 1982), Lakes Region Legal Defense Fund, Inc., v. Slater, 986 F. Supp. 1169 (N.D. Iowa 1997)). Though in these
circumstances the courts broadly construe the statute, they also give great deference to the agency process and the resulting decision. Nonetheless, it is also important to be wary of the highly deferential standard that courts apply to agency decisions (see Volpe, 401 U.S. 402).

Section 4(f) applicability to the Highway 100 Expansion

Pursuant to Section 4.3.7.3 of the DSEIS, the FHWA determined that Section 4(f) requirements do not apply to the expansion of Highway 100 in the area adjacent to the Rock Island Preserve (Preserve) (DSEIS 2001). The basis for FHWA’s decision was that the Preserve was not a Section 4(f) property because it was not a park, a recreational area or historic property, nor was it a refuge (DSEIS 2001). The FHWA’s position is in sharp opposition to that of the Linn County Conservation Board, the entity responsible for managing the Preserve, which considers the Preserve to function both as a wildlife refuge and as a recreational area (Management Plan 2003). As a result, because of the mandatory language of the statutes, and the regulations promulgated by FHWA for enforcing Congress’s mandate, it may be possible to bring a legal challenge against the FHWA requiring them to perform a Section 4(f) analysis.

It is clear that the issue here is whether or not the Preserve falls within the meaning of Section 4(f) property. Of special significance in the present situation is the Conservation Board’s designation of the property, the FHWA’s regulations for identifying Section 4(f) property, and comments submitted to the DSEIS noting the need for further Section 4(f) inquiry. Additionally, there is a concern regarding the land added to the Preserve in 2002, and the affect that this donation has on an effort to make a claim that a Section 4(f) analysis needs to be performed before the expansion project moves forward.

The Conservation Board’s Management Plan clearly indicates that the Preserve has been used as both a wildlife refuge and a recreational area since it was originally donated to the Conservation Board in 1962 (Deed 1962). The original deed explicitly indicates both the donor’s intent, and the Conservation Board’s acceptance, that the original area was to be effectively used as a wildlife preserve and limited recreational area:

The Linn County, Iowa, Conservation Board is to manage the use of the land for the public good and benefit . . . This tract is to be kept inviolate as a botanical and biological preserve for its educational and scientific value, its beauty, [and] its potential as a wildlife preserve.” (Management Plan 2003).
The Conservation Board adopted a policy for managing the Preserve in 1964 that specifically addressed the Preserve’s significance in providing habitat for native species, noting that “[t]he flora and fauna of this small prairie tract and its adjacent bog are indeed unique” (Management Plan 2003).

Then, in 1978 the Conservation Board officially acted to have the Preserve dedicated as a state preserve under Iowa Code 465C. Under section 465C.7, a preserve is defined as “an area of land or water formally dedicated under this chapter . . . [as] an area which has unusual flora, fauna, geological, archaeological, scenic, or historical features of scientific and educational value” (Management Plan 2003). Another section of the code that is of particular applicability in the present case is section 465C.13, which states that “[d]esignation of an area as a preserve within the system shall not void or replace any protected status under law which the area would have were it not so designated.” In effect, this section of the code prevents the title of preserve from limiting the function of an area that is used for multiple purposes, like the Preserve. Shortly after the Preserve became a part of the state preserve system the Conservation Board decided to designate and manage it as a “wildlife refuge” for the purpose of providing a sanctuary for the plants and animals living in the Preserve. It is clear from this designation, the Conservation Board’s management plan, and the original dedication of the land that one of the intended uses of the Preserve is to provide wildlife and plant habitat, similar to that of a wildlife refuge.

In addition to its significance as a habitat, the Preserve is also an area of low impact recreation. The Preserve is designated for scientific research and observation, and also has some trails running through it for walking and hiking (Management Plan 2003). Taken together, it is clear that the Conservation Board, the local agency vested with management control, perceives the Preserve to be a significant area as a wildlife refuge and a recreational area.

The FHWA’s own regulations require that the Conservation Board’s designation be taken into account in determining the applicability of section 4(f) requirements. Specifically, 23 CFR § 771.135(d) articulates that the FHWA should defer to the Conservation Board. Though the regulations do permit the agency to review the Conservation Board’s determination for reasonableness, nothing in the section of the DSEIS that addresses Section 4(f) mentions that the FHWA found the Conservation Board’s determination to be unreasonable. As a result, it appears
that the FHWA simply chose not to defer to the Conservation Board but did not make the requisite findings to support its position.

Many of the comments submitted in response to the DSEIS also reflect the belief that a Section 4(f) analysis should have been performed. The Conservation Board’s comments are among those that specifically question the FHWA’s decision. In particular, the Conservation Board prepared a position paper on the Highway 100 project in which it focuses on the natural prairie state found at the Preserve, and upon the finding that “the Governor and the Iowa Legislature have determined that preservation of these few rare areas in Iowa is imperative” (Conservation Board Position Paper 2001, 2). Though the Conservation Board’s position on this matter is not surprising, multiple other agencies at both the State and Federal level commented on the absence of a detailed Section 4(f) analysis in the DSEIS.

Several federal agencies questioned the absence of a more detailed Section 4(f) analysis. The United States Environmental Protection Agency (EPA) specifically commented that “the document (DSEIS) discussed the lack of applicability of Section 4(f) to the Rock Island Preserve. This decision does not comport with FHWA’s standards for establishing 4(f) applicability” (EPA’s Comments 2001, 1). In particular, EPA questioned why FHWA had not deferred to the Conservation Board in its determination, and why FHWA had used such a narrow definition of the term wildlife refuge (EPA’s Comments 2001, 1). The Department of the Interior (DOI) also urged the FHWA to perform a Section 4(f) analysis. DOI stated that “FHWA should provide an evaluation of the project’s potential impacts to the Rock Island Preserve, under an assumption that the criteria for its inclusion as a 4(f) property have been met” (DOI Comments 2001, 4). Though these agencies positions are not determinative, they do indicate that it would be reasonable, and even prudent, for the FHWA to perform a Section 4(f) analysis.

Several state agencies also advocated for a more in depth Section 4(f) inquiry. The Iowa Department of Natural Resources (IDNR) commented that “[w]e are very concerned that the Federal Highway Administration has determined that Section 4(f) does not apply to the [Preserve]” (IDNR Comments 2001, 1). The IDNR also expressed concern about the possible precedential value of the FHWA’s decision because the “decision has serious implications for other state preserves and state lands” (IDNR Comments 2001, 1). In addition, the Iowa Department of Justice (IDOJ) submitted a detailed legal analysis supporting a finding that the Preserve is Section 4(f) property (IDOJ Comments 2001, 1).
The potential for an effective legal argument requiring that the FHWA perform a Section 4(f) analysis is very good. The strongest factor in favor of performing a Section 4(f) analysis is the requirement under FHWA’s regulations, 23 CFR § 771.135(d), that the managing organization’s determination be given deference. Here, it is clear that the Conservation Board’s position is that the Preserve is Section 4(f) property. This finding is supported by nearly 50 years of documentation, as well as the current management plan for the Preserve and the species inhabiting the area. In addition, the support and position of other federal and state agencies provides further support that the FHWA should consider the Preserve to be Section 4(f) property.
ALTERNATIVES TO LEGAL CHALLENGES

Because a primarily litigation-based strategy is costly, time-consuming, and uncertain, the Sierra Club should consider other strategies for encouraging environmentally sound development in Cedar Rapids and Linn County. The two strategies we have identified to accomplish this end are complementary: engaging in an effective public participation strategy would allow the Sierra Club to have more meaningful input on local and regional planning decisions, and coalition building would demonstrate a broader base of support for the group’s input.

Public Participation

An effective public participation strategy is widely recognized by planning professionals as an integral part of the planning process. When done correctly, public participation can guide officials in identifying existing or emerging problems, developing alternative strategies for addressing those problems, and evaluating the impacts of those alternatives. It also gives interested members of the public a chance to hear from planners and other government actors, to view their research, and to better understand their positions. Ideally, public participation should involve a give and take between government officials and individual citizens. Effective public participation depends on involving participants early in the process, providing them with all relevant information in an accessible manner, and making them feel that their involvement is actually influencing the planning process (Halseth and Booth 2003). Especially when working on controversial or divisive topics, attaining these goals can be difficult. Participants and facilitators must recognize their mutual interest in working together collaboratively, and when tensions threaten to derail the public participation process, an impartial, professional facilitator can be useful in helping discussions progress smoothly (Halseth and Booth 2003).

Public participation is particularly important in the NEPA process. The Council on Environmental Quality (CEQ), the federal body responsible for coordinating national environmental practices, has issued a set of regulations to help federal agencies implement the NEPA process. These regulations make clear that public participation should be integrated into each major step of the NEPA process, from the initial scoping process to the final commenting procedures. Each federal agency is responsible for its own NEPA implementation process.
Federal Highway Administration (FHWA) materials stress the importance of public participation, stating:

[i]n a democratic society, people have opportunities to debate issues, frame alternative solutions, and affect final decisions. Knowledge is the basis of such participation. The public needs to know details about a plan or action in order to evaluate importance or anticipated costs and benefits. Through continued interaction with the entire community, agencies and project sponsors can build support and, more importantly, assure that the public has the opportunity to help shape the substance of plans and actions. In summary, public agencies must act as public servants.”

An effective, inclusive public participation strategy is an important tool by which planners and other government officials can gather information and make wise choices for an entire community. When the participation process does not provide interested members of the public with adequate, timely information, when the participants do not include key constituency groups, or when the public feels the important issues have already been decided, and that participation can yield no substantive benefit, participants and the larger community may grow disillusioned with the process, and the entire process may be undermined.

Overview of the Public Participation Process for Highway 100

The Cedar Rapids Comprehensive Plan, which was adopted May 19, 1999, targets the area around the proposed extension for growth. The comprehensive planning process incorporated several types of public participation mechanisms, including placing citizens on advisory committees to oversee specific focus areas of the plan (i.e. Parks and Recreation, Annexation and Growth) and holding more traditional public workshops. Though the Highway 100 extension was not specifically addressed as a part of the comprehensive planning process, the resulting plan forms the basis of all planning activities in the city, including the highway extension. Therefore, it is worth noting that participation by the Sierra Club at the comprehensive planning stage would have been an effective way to proactively shape a more desirable growth pattern for Cedar Rapids.

The DSEIS summarizes the public participation conducted under NEPA for the extension. Iowa DOT conducted two open forum public meetings in May 1999 and March 2000, respectively. These public meetings were held nearly eight months after the agency scoping meetings. The purpose of the May 1999 meeting was, according to the DSEIS, “to discuss the
project status and to obtain input on the No-Build Alternative and the type of access control that should be used along the proposed Iowa 100 extension.” At this point, before any public hearings, the preferred alternative had already been identified. The second meeting was intended to provide the public with a project update and to provide additional information on the preferred type of access control for the extension. Through the public meeting process, residents brought up concerns about impacts on Rock Island Preserve and nearby neighborhoods. As a part of the public participation program, the Linn County Regional Planning Commission helped to establish two resource groups that would identify local concerns that should be addressed in the project design and in the DSEIS. These resource groups were composed of residents from nearby neighborhoods, local government staff, and neighborhood groups. Local officials, agencies, interest groups, and area residents were also kept informed of project updates and upcoming meetings via two newsletters published during the first and second quarters of 2000. Finally, the project team developed a website to disseminate project information and to solicit public comment. The number of participants fluctuated significantly throughout the process. They ranged from thirty or so participants to about one hundred, with more commenters and meeting attendees as the process progressed.

Perceived Gaps in the Public Participation Process

Both local planning officials and citizen groups have expressed frustration with the Highway 100 public participation process, but for very different reasons. As a result of each side’s perceptions of how the process fell short, the issue of the Highway 100 extension has become acrimonious, and each side regards the other with extreme suspicion. Despite public participation’s goal of building trust and agreement among diverse parties, each side of the Highway 100 debate believes the public participation process has failed to achieve these goals.

Dean Wheatley, the long-range planning manager for Cedar Rapids, expressed his frustration that despite the planning staff’s efforts to increase attendance at public forums, relatively few people show up until they are directly and negatively affected. He said he believed that citizens and groups needed to work within the existing planning framework in order to get favorable results, and that when they don’t work within that framework, they lose clout with the planning staff, and may be perceived as underhanded.
His experiences with those individuals and groups who are fighting the Highway 100 extension have led him to believe that the opposition to the extension is coming mainly from one individual who, he says, is misusing environmental laws to further NIMBY-ism. This unyielding opposition led to the dissolution of one of the resource groups established as a part of the public participation program. Further, he says that no one has ever called his office or come in to talk with him about their opposition to the extension. Because he has no information about the local Sierra Club, how they vote within their meetings, or what their long-term vision for Cedar Rapids development is, and because they have never initiated discussion with him about the extension or any other planning activity, he is suspicious of their motives, even going so far as to question the validity of some of the species inventories conducted in the Preserve. The main gaps in the public participation process from Mr. Wheatley’s point of view appear to be that concerned parties have not worked through the proper channels to express their concerns, that the tactics used by those working against the extension are unnecessarily disruptive, that they use environmental laws for illegitimate, NIMBY-esque reasons, and that the operations of the Sierra Club are insufficiently transparent to enable a meaningful partnership with local planners.

Other groups, however, have questioned the project team’s commitment to meaningful public participation. In their comments on the DSEIS, the Iowa State Preserves Advisory Board and Allen Farris, Administrator of the Division of Fish and Wildlife both wrote that they believed the preferred alternative had been favored from the beginning, and that the DSEIS had been written to support that preferred alternative, rather than to examine the impacts of each of the alternatives. Mr. Farris noted that natural effects were only examined for the recommended route, and there was no indication that wetland inventories or species surveys had been conducted, even on a cursory level, for the non-preferred alternatives. This lack of information about the impacts of the proposed alternatives would have precluded meaningful public participation in evaluating these alternatives. Additionally, Robert Hogg, writing in his capacity as the chair of the Cedar-Wapsie Sierra Club, expressed his group’s frustration at the deception they believed the IADOT had relied upon throughout the process. The group believes the IADOT has intentionally issued misleading information about project costs, species, and environmental effects, congestion impacts, the probability of successful mitigation of species impacts, and the general level of public support for the project. These charges, and the bases for them, are laid out in more depth in the group’s lengthy comments on the DSEIS.
Strategies for Improvement

Based on the public participation process followed for the Highway 100 extension, and various individuals’ perceptions of the gaps in that process, we recommend the Cedar-Wapsie Sierra Club consider the following issues when planning its future efforts to shape development:

**The best advocacy is proactive, not reactive.** Litigation can provide a useful tool in some circumstances, but because of the time, expense, and uncertainty inherent in a litigation-based reactive strategy, the group could better use its energy and resources by developing and advocating a long-term planning vision for the city and county. A visioning process helps those involved to reach a consensus on their overarching goals for the community. It involves, among other components, the environmental, land use, and transportation goals that will serve as a template or yardstick for future proposals. Information on developing a visioning process is available from the American Planning Association (APA). Private consultants can help lead the process, and may be found through the APA.

**Build and maintain ongoing communication** with local city and county planners about this long-term planning vision. Transportation and land use issues are best addressed at a city- or region-wide level, and by publicly acknowledging this reality, the group can dispel the perception that they are only interested in the extension because of NIMBY-ism implications. The Sierra Club should use the channels set up by the planning staff, visit or call them in the office, attend their public forums, and invite them to speak at Sierra Club meetings. In order to ensure that planners take a group’s concerns into consideration, the group must do their part to foster an atmosphere of mutual understanding.

**Publicly band together with like-minded groups and individuals.** The local planning staff currently sees the Cedar-Wapsie Sierra Club as being largely controlled by a few individuals, and they believe that the group’s position on Highway 100 does not reflect the interests of most local residents. Demonstrating a wide base of public support may be essential to creating meaningful change in the city’s long-term plan. Coalition building is discussed in more detail in the next section.

If the Cedar Wapsie Sierra Club still believes it is being unfairly ignored, it should bring its concerns into the realm of local government. Planning happens within the context of government, and can be influenced by governmental processes. The group might consider
contacting sympathetic elected officials, lobbying undecided or opposing politicians, or working
to elect a candidate who will be more receptive to their concerns. Appendix B contains
information about contacting local officials and engaging in legislative advocacy. Additional
suggestions about running a grassroots campaign can be found in the following section.

**Coalition Building**

As discussed above, one of the most significant barriers to effective public participation
the Sierra Club currently faces is a perception within the local planning department that it is a
narrowly focused group that lacks broader support for its opposition to the extension. This, in
turn, feeds the perception that the group is reacting to the extension out of narrow self-interest
and not out of any environmental or social concern. From their perspective, opponents of the
extension have felt excluded from the decision making process from the beginning of the project.
The most effective way to address these problems is through building a coalition of groups with
common interests and individuals who can coordinate their efforts in working for change. The
following section draws heavily on interviews with and training materials prepared by Monique
DiCarlo, Karen Kubby, and Salome Raheim, three grassroots trainers based in Iowa City, Iowa.
It also references the work of Barry R. Rubin, whose work is discussed in more depth in
Appendix A. Working within a coalition can be enormously helpful in citizen advocacy,
particularly when the citizen group is working in opposition to a larger, better funded institution.
The case study in Appendix D provides one example of how a coalition can effect change in
local planning processes. There are three types of benefits that flow from organizing citizen
advocacy work in a coalition: message benefits, resource benefits, and action benefits. These
primary benefits are summarized below:

- **Message benefits** relate to how the public perceives the issue.
  - Bringing together new groups can provide strength in numbers.
  - Diversity of knowledge, skills, professions, and ideologies can lend credibility to
    the group’s position.

- **Resource benefits** are those benefits related to the internal operations of the coalition.
  - Groups can exploit economies of scale in administrative and implementation
    costs.
  - Members can pool research and contacts, divide labor, and eliminate redundancies
    in their efforts.
  - A diverse coalition will be better equipped to find new angles from which to
    identify and confront problems and to seek solutions.
• **Action benefits** are those benefits related to what the coalition is enabled to do in the larger community.
  - More personal networks might mean the coalition will enjoy a higher media profile.
  - Larger membership might mean the coalition would have more access to and influence with policy makers.

**Steps in Successful Coalition Building**

The first step in building a coalition is identifying potential members. Local and state groups the Cedar-Wapsie Sierra Club might wish to consider are listed in Appendix C. Potential coalition members should be evaluated based on the expertise and reputation they would bring to the coalition. Rubin suggests establishing an “issue network,” an informal way of sharing information among individuals and organizations with common policy concerns (such as through an email list serve). From this issue network, the Sierra Club can next begin to develop the coalition by recruiting potential coalition organizers and holding introductory meetings for interested organizations. Organizers could be people interested in getting the coalition off the ground, or they might eventually form a board, steering committee, or similar oversight body. One possibility is forming an issue network around the visioning process, drawing together groups and individuals who want to articulate a more sustainable long-term vision for local and regional growth.

Once the initial coalition members have been identified, the next step is to determine the group’s structure and focus. If coalition members are of similar backgrounds, occupations, and ideologies, this step might be fairly straightforward. Often, though, this is the first point at which challenges begin to emerge, as people with different perspectives on a problem or different ideas of the “best” solution begin to work together. As Rubin notes, broad, “unlikely” alliances among coalition members are frequently the most effective pairings because they demonstrate very broad support and strengthen the credibility of the position. Thus, even though diverse coalitions may be more difficult to manage, the benefits generally far outweigh these difficulties. If the visioning process has been used in conjunction with identifying potential coalition members, the shared vision itself can provide guidance in determining the group’s structure and focus.

Once these steps are complete, the coalition can next begin to draft a plan for advocacy actions. Given that much of the local planning department’s opposition to Sierra Club action on the extension has stemmed from a perception that the group is staying below the radar to hide the
fact that it lacks broad support, a higher-profile coalition would be the wiser route at this point. Advocacy actions should have a consistent, coherent message tied to the long-term planning vision. The coalition might be a part of the ongoing communication with the planning staff discussed above. Other possibilities include a media campaign (letters to the editor, guest editorials, meetings with local editorial boards, etc.) or political activities (letters to elected officials, legislative advocacy, election campaigning, etc.). In light of the recent, negative portrayals of the Sierra Club in Cedar Rapids media, the Sierra Club should consider a media campaign as its first coalition action. We have assembled a press packet, including talking points, guidelines for editorial board meetings, letters to the editor, guest editorials, and local media contact information, included in Appendix E.
RECOMMENDATIONS

We recommend that the Sierra Club pursue the legal challenges detailed in this report. The best chance of success that the Sierra Club has would be the Section 4(f) challenge. However, the changed conditions argument under NEPA is worth pursuing as well, even though the outcome more uncertain.

If the Sierra Club wants to establish a coalition in the Cedar Rapids area, we recommend that it first make a commitment to changing its interactions in the community. By committing to a long-term proactive approach, founded on public participation and coalition building, the Sierra Club can positively and proactively affect the development patterns in Linn County. The type of proactive strategy necessary to achieve these goals is complicated and will only be accomplished through constant and persistent efforts to build and maintain alliances in the community. We suggest the following specific ways that the Sierra Club could develop a long-term, proactive platform:

- **Visioning.** The Sierra Club should begin the process of creating a long-term strategy approach by determining and prioritizing the location and types of areas that should be preserved or conserved. A vision provides a framework for groups that are trying to establish positions on and recommendations for regional growth and development. A vision will help a group stay consistent between its positions on current development issues and its positions on future development issues that will arise. The American Planning Association and the Sustainable Communities Network are great sources for information on how to begin the visioning process and structure a long-term vision.

- **Investigate and analyze all local planning documents.** As a group, the Sierra Club should educate themselves about Smart Growth development. Then it should examine the local transportation plans for the region and the various comprehensive plans in order to generate a list of concerns that need to be presented to the local governing bodies.

- **Invite independent, objective players to participate in visioning.** By inviting independent, objective players to participate, the Sierra Club can accomplish
several goals. First, an independent player can help provide an objective view on
the interaction between development patterns and conservation/preservation of
natural resources. In addition, an independent player can substantiate the Sierra
Club’s position and help legitimize the club’s position to local governmental
organizations and officials. For example, it could hire an independent
transportation specialist and receive his or her unbiased advice about where and
how the region’s transportation network could be shaped. The Club could then
seek the input of developers and coordinate the suggestions of the independent
specialist and the developers in order to have a broad range of support for its
transportation recommendations.

- **Build working relationships now.** In order to develop positive and functional
  working relationships with the various constituencies in Linn County it is
  imperative that the Sierra Club works to build and foster those relationships
  before problems arise. Set up meetings with various regional and local
governments, especially the planning departments. Organizations such as the
LCRPC and the Linn County Planning Department are integral players in
development patterns. Relationships with groups such as these will enable the
Sierra Club to stay informed about changing plans and to help make sure that the
club’s position and criticisms are heard by those shaping development.

- **Participate.** The majority of the meetings held by the local governmental bodies
  in Linn County are open to the public. The Sierra Club should develop a schedule
that rotates it members through the public meetings in the region so that the Sierra
Club’s vision is heard and represented in discussions about development
proposals and decisions.

- **Be clear about its positions on development issues.** In order for the Sierra
Club’s position to be taken into account when development decisions are being
made the club must first ensure that its position on issues is known early in the
process. This may be accomplished through the relationships and participation
discussed above, but can also be done through press releases and position papers.

- **Endorse candidates.** Be represented in the election process and endorse
candidates that are willing to work with the Sierra Club. Especially important are
the seats on the Linn County Board of Supervisors because it appoints the Linn County Conservation Board.

- **Stay involved.** By continuously playing a role in the development patterns of Linn County, the Sierra Club is most likely to ensure that its goals of conservation and preservation are achieved.
CONCLUSION

Due to the timing of this project, the short-term solutions for changing the preferred Highway 100 route are limited. First, the Sierra Club should pursue litigation under NEPA and Section 4(f) in order to change the preferred Highway 100 route. While this litigation strategy may appear to be a reactionary measure and may invoke criticism from supporters of the current Highway 100 route, to a certain extent, these legal challenges are not completely reactive for two reasons: first, the addition of land to the Preserve after the DSEIS was completed was not foreseeable, and second because the DSEIS was the first indication that the FHWA did not consider the Preserve to be Section 4(f) property. The 4(f) challenge has the most likelihood for success. Second, while public participation and coalition building may not be the most effective at this junction because the sides have already been drawn, the Sierra Club could immediately begin a public relations campaign to correct misconceptions about its Highway 100 position and to counter criticisms that people have about other possible routes that the group deems more preferable.

Though proaction is precluded on the Highway 100 expansion project, it may still offer a long-term solution for affecting the development patterns in Linn County. In particular, the Sierra Club should begin a grass-roots campaign to coordinate citizens in support of coordinated planning efforts between the City, the County and the LCRPC. A joint planning effort could take into account the growth and transportation needs of the region’s expanding population while mitigating potential harms to existing parks, preserves, or conservation areas. However, before the Sierra Club can effectively advocate for a more comprehensive regional planning effort, it needs to create and commit to a vision for the organization’s future. Develop a platform for development in the region, reach out to other like-minded groups, endorse supportive candidates, publicize meetings and positions, and meet with local officials.
REFERENCES CITED


City of Cedar Rapids City Council. 2001. Resolution Supporting the Proposed Hwy 100 Extension from Edgewood Rd. NE Westerly and Southerly to Hwy 30, IADOT Project Number NHS-100-1(36)—19-57: Resolution No. 1953-8-01.


Deed from Rock Island and Pacific Railroad Company to Linn County, Iowa. 1962. Linn County, Iowa Recorder’s Office.

Deed from James Properties, Inc. to Linn County, Iowa. 2002. Linn County, Iowa Recorder’s Office.


Lown, Loren. Phone Interview on February 5, 2004.


Wheatley, Dean. Personal Interview conducted on February 5, 2004.

APPENDIX A
APPENDIX A: ANNOTATED BIBLIOGRAPHY

Review of the EIS – Case Law

Friends of the Clearwater v. Dombeck
222 F.3d 552 C.A.9 (Idaho), 2000
Environmental groups brought suit against the U.S. Forest Service, alleging that the Forest Service failed to prepare a supplemental EIS for certain timber sales in the New Perce National Forest, as required under NEPA. The environmental groups contended that various changes in circumstances since the preparation of the original EIS, including the placement of three species native to the forest on the endangered species list, the proposed listing of another native species, and the reintroduction of a formerly-endangered species into the region, compelled the Forest Service to prepare a supplemental EIS. The Forest Service had also published a report acknowledging that one of the documents on which its management plan was based was inadequate. The court found that the agency could not simply rest on the previously published EIS, but must continue to take a “hard look” at the impacts of its acts, as new information arises. Because the agency failed to consider the new information in its decision not to prepare a supplemental EIS, the agency was in violation of its NEPA.

Marsh v. Oregon Natural Resources Council
The case involves an EIS prepared by the Army Corps of Engineers for a proposed dam project in southwest Oregon. In Marsh, the U.S Supreme Court addressed the question of whether information developed after the completion of a final EIS can compel an agency to prepare a supplemental EIS. In Marsh, the new information were two reports, one prepared by biologists the Oregon Department of Fish and Wildlife (ODFW) and one prepared by the U.S. Soil Conservation Survey (SCS). The ODFW report summarized an agency stuffy of the proposed dam that found that the dam was likely to adversely affect downstream fishing. The SCS report suggested the downstream turbidity effects from the dam would likely be greater than the Army Corps of Engineers’ FEIS had predicted. The Court held that though post-decisional, supplemental EIS’s may be required under NEPA in certain circumstances, and noted that this interpretation was consistent with the guidelines issued by the Council on Environmental Quality and by the Corp’s own guidelines. Agencies should apply a “rule of reason” test in deciding whether a supplemental EIS is warranted, and courts should review that agency decision on an “arbitrary, capricious, or abuse of discretion” standard of review. The Court held that because the information was neither new nor significant, the Corps had fulfilled its NEPA obligations and was not required to prepare a supplemental EIS.
Sierra Club v. Froehlke
816 F.2d 205 (5th Cir. 1987)
A supplemental EIS is required when new circumstances present a seriously different understanding of the proposed project and its impacts from what the agency originally expected.

State of Wisconsin v. Weinberger
745 F.2d 412 (7th Cir. 1984)
Plaintiffs sought an injunction on any further low-frequency submarine communications until the Navy prepared a supplemental EIS to account for new developments in the understanding of the biological effects of low-frequency electromagnetic radiation. The court ruled that the Navy was within its discretion in determining that the new studies did not significantly change the understanding of the project’s impact, and that an injunction was thus inappropriate.

Hickory Neighborhood Defense League v. Skinner
893 F.2d 58 (4th Cir. 1990)
The Department of Transportation prepared an EIF for a road project that would go through a historic neighborhood that contained two structures eligible for the National Register of Historic Places. The EIS examined the impact on these structures and determined, as required by a 4(f) analysis, that there was no prudent and feasible alternative. After the EIS was completed, the historic buildings were nominated to the Register. The DOT did not prepare a supplemental EIS to account for this change in status. The neighborhood group filed suit, alleging in part that the nomination to the Registry constituted a change in conditions sufficient to compel the preparation of a supplemental EIS. The court held that because the change in conditions did not create a seriously different picture of the impact of the project when compared with the impact contemplated in the EIS, a supplemental EIS was unnecessary.

Idaho Sporting Congress, Inc. v. Rittenhouse
305 F.3d 957, C.A.9 (Idaho), 2002
The U.S. Forest Service is required under the Forest Management Act to maintain viable levels of native species and desired non-native species in its managed lands. The Forest Service adopted a forest management plan for the Boise National Forest based on a model in which tracts of trees with certain characteristics were identified as sufficient habitat for certain of these species. Based on this forest management plan, the Forest Service sold timber rights in a discreet area of the Boise National Forest, and several conservation groups challenged. Held: Where the agency’s own scientific findings contradict the scientific basis asserted for an agency action, a supplemental EIS is required.

Dubois v. U.S. Dept. of Agriculture
102 F.3d 1273 (1st Cir. 1996 (N.H.)
Where the design for a skiing facility in a national forest was expanded and significantly changed from the design contemplated by the EIS, to a design not specifically detailed or directly
mentioned in the EIS, failure to prepare a supplemental EIS was arbitrary, capricious and an abuse of discretion, under the doctrine of changed conditions.

**Louisiana Wildlife Federation v. York**

761 F.2d 1044

5th Cir. 1985 (Louisiana)

The Army Corps of Engineers granted six individual permits for converting approximately 5,200 acres of bottomland hardwood wetlands to agriculturally uses. The programmatic EIS stated that 17,300 acres of bottomland hardwood wetlands would be converted regardless of the Corps’s permitting decision. The Fifth Circuit held that the Corps was required to file a supplemental EIS if there was a reasonable probability that a significant number of acres would not, in fact, be converted independent of the Corps’s permitting decision, and that the Project might thus have significant additional impacts not addressed in the EIS.

**Research about Species in the Reserve**

Iowa Department of Transportation. 2001. *Draft Supplemental Environmental Impact Statement*

(Iowa DOT Project Number: NHS-100-1(36)—19-57).

Plant Species: The DEIS identifies several tree species located along the proposed alternative route, including black oak, white oak, bur oak, black locust, black cherry, American elm and hackberry. Also present in areas around the proposed corridor is a recently discovered two acre prairie remnant, containing prairie grasses such as big bluestem and little bluestem. There were invasive species, such as Kentucky bluegrass and garlic mustard, throughout. Possible adverse affects to plant life from the project include tree loss resulting from exposure to sun and wind, as well as from pollutants from runoff, and interruption of natural plant succession to mature communities, and increases in soil erosion. The EIS claims the impacts would be occur primarily along the edge of the road and would be mitigated by using inter-agency cooperation to identify woodlands to be preserved, and by purchasing woodland offsets elsewhere in the region. Likely effects to wildlife include loss of breeding and foraging habitat, barriers to wildlife movement, and increased mortality from traffic. Mitigation plans include fencing along the right of way to keep species from moving across the traffic lanes. The EIS further identifies the American Bald Eagle and the byssus skipper as wildlife species located in the area that are on federal or state endangered or threatened species lists.


The Board discussed field research conducted in the Rock Island Preserve, which identified 300 native plant species, some of which are on the list of special concern species. This document did not identify which species those were. This research also identified the Blanding’s turtle and the ornate box turtle as living in the Rock Island Preserve, neither of which were mentioned in the DSEIS. The ornate box turtle can also be found in the donated portion of land.

This website denotes the species on the state and federal endangered and threatened species lists. The bald eagle, identified in the EIS as listed on the federal threatened species list, is also on the state endangered species list. Other species in the preserve on one of these lists include the byssus skipper (state threatened species list), the Blanding’s turtle (state threatened list), and the ornate box turtle (state threatened list).

**City and County Documents and Information**


A review of Cedar Rapid’s Comprehensive Plan shows a few areas that will be pertinent to the Highway 100 project. First, the future land use map, which is included in the Plan’s appendix, shows that the area surrounding the Rock Island preserve is planned for low density residential. Second, page 36 of the Plan outlines the city’s growth and annexation goals and objectives. Goal two states that growth should occur in a “cost-effective, energy efficient and environmentally responsible manner through effective coordination with neighboring communities and Linn County.” Page 57 of the Plan reserves a place for “special purpose parks” as part of Cedar Rapid’s future. Included in this category are nature preserves. While the Plan does not state the optimal size for these special purpose parks, it does state that Community Parks should be 50 to 100 acres. The Parks, Recreation and Open Space section of the Cedar Rapids Comprehensive Plan expresses an intention to address opportunities for shared use and/or joint development of recreational areas with other groups in the community. Objective 5.2 instructs the city to “capitalize on effective partnerships in the provision of parks and recreation facilities and services.” Policy 5.2.4 specifies that one way this goal should be implemented is by continuing to implement the parks are recreation plan by coordinating with Linn County.

Finally, transportation goals are outlined on page 69 of the plan. These goals state a commitment to the preservation of environmental resources, as well as to the efficient use of land.


The Linn County Rural Land Use Plan outlines the county’s key planning issues for land development and conservation. Page 14 discusses the county’s policy on conservation. Preservation and Conservation ranked fourth in important land use issues, behind agricultural preservation, protection of private property rights, and smart growth. There were only four issues identified. One of its conservation policies is to address how to coordinate the Land Use Plan with the identified Critical Natural Resource Areas, which includes the river corridor. Specifically, objective 5.2, states that the county plans to protect existing natural prairies and wetlands.

The transportation plan is a important document. It outlines who the members on the Regional Planning Commission are, who they represent, and how they are chosen. The plan’s goal is to “identify a transportation system that will provide for the safe, economic movement of people and goods that minimizes congestion with a minimum of social and environmental disruption.” It goes on to explain the current road network and then continues to identify the problem areas and recommend street improvements. This document is important for any citizen who wants to have input on development in the Cedar Rapids/Linn County area.


Appendices A-G are the various legal documents that have established and expanded the Rock Island preserve. Within these documents are the legal descriptions of the donated properties that now make up the Rock Island boundaries and the names of the donators.

About the City Council [on-line], retrieved Nov. 18, 2003, from http://www.cedar-rapids.org/council/contact_council.asp.

The City Council is composed of five citizens, all of whom are elected at-large for 2 year terms. All five will be up for re-election in 2004. The current members are Paul Pate, Mayor; Kyle Hansen, Accounts and Finance Commissioner and Mayor Pro Tempore; David Zahn, Public Safety Commissioner; Donald Thomas, Streets and Public Improvements Commissioner; and Wade Wagner, Parks and Public Property Commissioner. They meet weekly, with the first meeting of each month held in the evening. All meetings are open to the public, and public participation is invited. Contact information for each of the counsel members, as well as for the City Council collectively, is located at the website.

Information about Habitat Fragmentation


The authors of this article discuss the role of conservation corridors as a way to reduce the impacts of habitat fragmentation. Their research identifies which population can or cannot benefit from increased connectivity and suggests a method for determining the potential success of conservation corridors.


This article summarizes the major ecological consequences of roads. Roadkill, road avoidance, barrier effects, hydrologic disturbances, and erosion are some of the ecological effects summarized in Forman and Alexander’s article. The article seeks to place a focus on the
interactions between natural habitat and human infrastructure and the ecology that results from this exchange.


The authors of this article discuss their research on fragmented habitats amid an agricultural landscape. Their research found that increased isolation of habitat fragments resulted in decreased numbers of species as well as reduced effects of natural enemies. They conclude that habitat fragmentation results in less predator control of insects.


The chapter on habitat fragmentation begins by defining important terminology and conservation tenets. It discusses why managers of habitat reserves need to research fragmentation of habitat in order to reduce local extinctions. The chapter also discusses landscape interactions, including a description of patch habitats and the effects of various patch sizes, as well as the role of corridors between habitat patches. It gives methods and models that researchers can use for measuring the effect of human presence on landscapes and species. It also discusses how to plan for human presences at the landscape scale.


The chapters from Sheila Peck’s book provide a few case examples of successful landscape protection efforts. In addition, it provides contact information for those interested in contacting the groups that have carried out these successful efforts. The book also presents information regarding human disturbances to landscapes and the role of management in conservation efforts. It also contains information about habitat fragmentation, providing examples and illustrations.


Pages 86-91 discuss habitat fragmentation. The author gives a simplistic definition of fragmentation and then gives an example of habitat fragmentation. The author then describes how the fragmented habitat differs from the original and discusses the consequences of more land being closer to the edge of human activities.


The Saunders articles begins by explaining how habitat fragmentation research often focuses on how to manage patches or habitat and remnant species after fragmentation occurs. His article suggests rather than focusing on the internal interactions of the fragmented patch, researches should focus on external influences and how to lessen the negative impacts of habitat.
fragmentation. These external influences stem from the surrounding human landscapes and include such things as increased runoff, increased radiation, and wind. His article suggests that researchers and land managers need to understand how and at what quantities or concentration these external influences will affect the habitat fragments.


Species Survival is a collection of scientific case studies, focusing on species survival in fragmented landscapes. For example, one article in the book discusses the effects of habitat fragmentation on the viability of formerly common plan species. The book also compiles a set of articles that present the various theories and approaches for maintaining species survival in fragmented landscapes.


*Research Priorities for Conservation Priorities* sets forth a list of research questions that groups should seek to answer when determining the consequences of fragmentation on specific species and habitats. Specifically, the book outlines questions needed to determine the effects of fragmentation on the ecosystem’s processes, on species interaction and community structure, and on single species.

**Section 4(f) Information**

**CASE LAW**

*Citizens to Preserve Overton Park, Inc. v. Volpe*

*401 U.S. 402 (1971)* (rev’d on other grounds).

The Supreme Court reviewed a finding by the Department of Transportation (DOT) that there was no prudent and feasible alternative to the use of Section 4(f) land. In doing so, the Court applied a highly deferential standard, noting that Congress’s delegation, though broadly understood to be intended to protect parkland, did give discretion to the Secretary of the DOT to make this determination.

*Lakes Region Legal Defense Fund, Inc., v. Slater*

*986 F. Supp. 1169 (N.D. Iowa 1997).*

Case involving parkland in the northwestern portion of Iowa. The court focused on the broad intent and purpose of the Section 4(f) requirements, but ultimately found the Secretary of the Department of Transportation’s finding that there was no prudent and feasible alternative to be valid.

**OTHER**


48
The IDOJ’s comments on the DSEIS prepared by the FHWA for the Highway 100 expansion project. The focus of the comments is an argument made by the IDOJ that Section 4(f) requirements should apply to the project. In particular, the IDOJ focuses on the requirement under FHWA regulations at 23 CFR § 771.135(d) that mandates that the FHWA defer to the entity charged with managing an area to determine the areas potential designation as Section 4(f) property.

Comments of the Iowa Department of Natural Resources to IDOT Regarding Draft Supplemental Environmental Impact Statement, submitted on September 18, 2001.

Comments submitted by IDNR in response to the DSEIS for the Highway 100 expansion project. The IDNR expresses concern about the insufficiency of the Section 4(f) analysis contained in the DSEIS. IDNR is particularly concerned with the habitat of the State Threatened butterfly, the Byssus Skipper.

Linn County. Rural Land Use Plan. May 3, 2000 (Amended July 1, 2002).

The RLUP is the document that describes the County’s plan for structuring development. Several tools are included in this strategy, including the use of urban service areas and minimal level of service requirements. The County wants to encourage contiguous development through in-fill and higher density growth, and discourage sprawl and leapfrog development.


Park and open space plan put together by the LCRPC, which is the metropolitan planning organization in Linn County. The plan focuses on the need to preserve and protect the areas designated as parks, and to expand the area and usage of parks. Though a good overview, the PORP is not very functional as it needs to be updated.


Extensive discussion of the substantive requirements of Section 4(f), and especially on the tool that it provides to possible challengers of Federal-Aid Highway Projects. The author finds that the problem with the current format of Section 4(f) analysis is that it provides a litigation mechanism for challengers, effectively giving veto power to angry individuals. The author proposes an alternative method of dispute resolution be required under the statutes so as to foster more up front involvement and prevent lengthy legal battles.

The author reviews the history and status of Section 4(f) requirements. A thorough discussion of
the substantive requirements that Section 4(f) imposes on highway planning agencies, noting the
breadth of the discretion granted by the requirements. Also discussed is the role of constructive
use in Section 4(f) review.

Infrastructure’s Influence on Development Patterns

Carruthers, John I., & Ulfarsson, Gundmundur F., Urban Sprawl and the Cost of Public Services,

The authors use empirical analysis to determine the relationship between sprawl and the costs of
public services. The author concludes that the per capita cost of public services is directly
related to the density of development. It is argued that greater efficiency can be achieved
through urban form. In addition, the role of impact fees as a measure for mitigating these costs is
analyzed, and is found to help to increase density of development.

Forkenbrock, David. 2002. Policy Strategies for Iowa in Making Major Road Investments. The
Public Policy Center, The University of Iowa.

Chapter 4 of this report reviews the affects of transportation patterns on development. The
author discusses the significance of transportation project decisions and land values, and notes
that effective decisions can actually substantially affect values of various parcels of land. The
key factor in evaluating various strategies is accessibility, and that the attractiveness of any given
parcel is directly affected by that parcel’s accessibility by consumers. Because of this effect,
transportation decisions should be based not merely on transportation needs, but also on the
developmental effects that new or expanded roadways will have on shaping future development.

Henson, Ralph and Stephen Essex. 2003. The Development, Design and Evaluation of

This paper provides an analysis of how transportation systems can influence development and
usage. The authors analyze different transportation design patterns and how they affect
development in cities. In the course of their evaluation, the authors look at street networks, and
how design of the networks and surrounding land uses cause different usage patters. The authors
conclude that the use of large transport corridors results in the separation of various land uses,
which causes a greater need for vehicular travel to access these uses. Furthermore, the authors
found that low density developments with roads that ring areas diminish pedestrian access and
usage and perpetuates the need for further sprawl development.

Kaufmann, Vincent and Christophe Jemelin. 2003. Coordination of Land-Use Planning and
Transportation: How Much Room to Manoeuvre? International Social Science Journal
55, 175.

In this article, the authors analyze the affects of alternative means of transit options. In doing so,
they note the role that sprawl plays in addressing transit issues. Specifically, the authors note
that the result of the “outer suburban model” city is the result of sprawl, which requires auto usage in order to access many of the land-uses.


Discusses, using models and case studies, the need to integrate land-use and planning policy. The author asserts the need for both a short and long term coordination of policy efforts. In addition, the need for integration of the levels of government, from the state to the local level, is significant, especially in spatial integration. The role that economic and development play in the integration of transportation and land-use planning is discussed, and the need to incorporate economic concerns into policy is necessary to assure that well thought out plans are also successful. The author concludes that integration may only be achieved by breaking down barriers between transportation and land-use planning and departments/levels of government.


A review of the social implications of sprawl, focusing particularly on the effect of sprawl on political participation. Through empirical analysis, the author determines that there is an inverse relationship between distance traveled to one’s residence and level of political participation. The author discusses potential reasons for this relationship, specifically the overall change in social interaction and apathy, as well as the mere difficulty with distance participation.

**Public Participation**


This book gives an introduction to the community visioning process. It discusses the phenomenon of rapid growth and sprawl and how visioning can help local communities manage growth in planning for the long-term future. It offers a detailed description of the Oregon Model of community visioning and shares the visioning success stories of four distinctly different Oregon communities. The book describes how to develop a framework for a local visioning process, and provides a number of helpful hints for designing and implementing such a process. It also shares ideas for using graphics in visioning, and provides resources and contacts for further information.


The authors summarize a set feedback taken from participants in several land use and resource planning public consultations in British Columbia. The feedback identified six key principles for public participation, as well as some general cautions about possible pitfalls. The relevant
principles are first, the need for clarity of process, involving the “public,” facilitation of information flows throughout the process, and openness of process management. For clarity of process, facilitators must be clear with participants from the outset as to how the decision-making power has been delegated, how the other participants were identified, how the public participation process fits together with the other planning processes, how issues of compromise versus consensus will be managed, who will make the final decision, and how dissatisfied participants might appeal that unsatisfactory decision. Involving the “public” means that the participants must feel that the public, through their involvement, is actually having an impact on the planning process, and, moreover, that the other participants must actually represent the public, as opposed to special interest groups. Feedback regarding information management generally centered around three concerns: first, that facilitators should not limit the types of information that will be accepted into or valued by the process, but rather they should include and value local and folk knowledge; second, that the information given to the participants be timely, relevant, and understandable to a layperson; and third, that for difficult or particularly controversial topics, impartial, professional facilitators should be used for “distance.” Finally, openness in process management has three components: at the outset, participants and facilitators must have, or strive to have, open minds, and must recognize their mutual need to work cooperatively; during the process, participants must be kept informed of developments, decisions, or obstacles that pose a threat to the process envisioned at the outset; and at the conclusion of the process, facilitators must share with the participants what has happened with their input and recommendations. The authors suggest facilitating openness by providing an outline of the “mechanical” issues such as rough timelines, so that participants and facilitators have equal knowledge about the expectations for the project. The neglect of one or more of these principles can undermine the participation process and result in disillusionment among the participants. The authors highlight the need for mutual trust and respect, as well as information, in all these aspects.


The article addresses “power needs” of participants, suggesting that if possible, municipalities should make sure that interest groups do not “lose” all of its important issues, to the extent that the broadening the effort so that a “win” can be found might be advisable. Facilitators should be encouraged to understand the participants’ points of view, the ways in which those points of view might cause them to appear overly rigid or irrational, and the extent to which participation (or investment in participation) may be limited by participants’ other time commitments. The article notes the tendency of technical experts to treat the public as though they lack the knowledge or ability to fully participate, and the tendency of public participants to be suspicious that the technical experts merely want to make the government’s case. It further notes the importance of experiences technicians who can understand their role in the process, and can assist the group identify “win-win” solutions. Exclusive or primary reliance on formal hearings are not preferable modes of public participation. The article recommends gathering and disseminating information early in the process by newsletters, surveys, and community meetings. Several general logistical guidelines for designing public participation programs are listed. Most relevant among these is the recommendation that early on, all interested parties should be actively involved in generating alternative approaches and solutions. There is no mention of
public participation as a means of identifying problems or envisioning criteria or goals by which alternative solutions may be evaluated. The article recommends providing food because “research shows that people are less likely to express anger if fed.”


The document summarizes the types of public participation required or recommended at each step of the NEPA process, from scoping through final and supplemental drafts. It broadly defines public participation as “open, ongoing, two-way communication, both formal and informal, between DOE and its stakeholders.” It also acknowledges the wide array of entities it considers part of the public, including individual citizens and citizen groups, all levels of government, business and labor groups, and representatives from the scientific and technical communities. This wide array of interests should be compared with the findings of Halseth & Booth’s research, wherein citizen participants expressed frustration with and distrust of the inclusion of “interest groups” as members of the “public.” It provides some general guidelines or ideals for public participation, emphasizing the importance of face-to-face communication rather than written or more anonymous demonstration methods of communication, preliminary briefings to key constituencies regarding the bigger picture of the NEPA process to speed the early steps, the importance of allowing major stakeholders, such as other federal or state agencies, or local or tribal governments, to make short presentations at the meeting, and the importance of maintaining a respectful tone of dialogue. The DOE advocates several methods for making information available to the public, including mailing lists, telephone hotlines, newsletters, fact sheets, and press releases, “open door” policies at key agencies, computer-based communications, and visual exhibits. DOE urges the reader to “[u]nderstand that commenters are expressing sincere concerns, not trying to make your life difficult,” and to respond to comments in timely, fair, clear, and definite manner, explaining the reasoning behind a specific decision.


The website outlines two proposals for public participation. Portage County’s proposal invited citizens to become a member of a planning committee, which will then plan citizen information and education efforts for the comprehensive plan. As preliminary research involving technical expertise is done, citizens should be kept informed of new developments. This is followed by a visioning process to set goals and policies, and objectives. Alternative solutions are then presented to the public for their evaluation and comment. The final steps are plan implementation and monitoring, reassessment and amendment. Fennimore’s proposal would have the city and town conduct personal visits and interviews with “key individuals who might not otherwise become involved in the process of developing the plan.” This step would come before any larger surveys or forums for community input.

Karel van der Zwiip. 1994. Public Participation as an Instrument for Environmental Protection, Manual on Public Participation in Environmental Decisions Making (Magdolina Tóth
This chapter provides a broad framework of public participation from an international perspective. The author notes that public participation can mean more than participating in public hearings or visioning processes, but that the term is inclusive of writing letters to public officials, demonstrating, protest meetings, and voting and lobbying activities. Regardless of the mode of participation, van der Zwiep emphasizes the importance of time and place for effective efforts, meaning that the correct government body or agency must be addressed at the right time. Thus, though public participation through official channels (visioning meetings, public hearings, notice and comment procedures, etc.) might occur simultaneously with public participation through informal channels (letters to the editor, get out the vote activities, protest activities, etc.), pursuing the official channels, where available, is essential for a successful campaign. Several general means of participation through official channels are addressed briefly, but in very little depth. Van der Zwiep concludes that though the extent to which public participation has caused officials to change or adjust their preferred action is difficult to assess, but that the public can serve as a “check” by filing a complaint or a lawsuit against the agency if they suspect the agency cannot explain its reasoning for putting aside the results of public participation. Though his broader definition of public participation and his emphasis on pursuing both official and informal channels of participation may prove helpful to our project, his emphasis on litigation and complaints as a “check” seem better suited to developing countries with less open governments and less developed environmental and administrative law. This approach seems less applicable in the United States, where open records laws, institutional emphasis on public participation, and more open governments mitigate many of van der Zwiek’s apparent concerns.

Coalition Building


The chapter stresses that because a coalition’s members are groups, not individuals, coalition building and management present challenges unique from present in traditional group dynamics. Each group brings its own goals, agendas, criteria, and values to all coalition activities. Rubin says the first step in coalition building is to establish an issue network, an informal way of sharing information among individuals and organizations with common policy concerns. Because they are not action-oriented and take no formal position on issues and controversies, they can reach wider and deeper for supporters than can an established coalition. Out of issue networks, coalitions can be cultivated. The chapter highlights the various routes a coalition may choose to take with regard to identity (whether to have a high or low profile) and the benefits of a coalition. Rubin also stresses that although the initial, core coalition membership will probably be fairly easy to recruit and of similar opinions on the issue at hand, effective coalitions tend to be have a broader range of membership. “Unlikely” alliances, as between environmentalists and certain industry sectors, are generally especially effective.

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APPENDIX B: WRITING TO ELECTED OFFICIALS

You can send a letter to your elected official by regular mail, by email or by fax. Generally, letters, faxes and phone calls are more effective than emails. Although e-activism can be a powerful tool, it is best to reinforce communications via email with a follow-up letter. While it is always better to write your own letter or to personalize a form letter when possible, a form letter is better than nothing. According to former Congressman Billy Evan (D-GA), “Legislators estimate that ten letters from constituents represent the concerns of 10,000 citizens. Anybody who will take the time to write is voice the fears and desires of thousands more.” Current lists of the names, addresses, and honorifics you should use when writing to your officials are generally available from the local public library.

Steps:

1. State your name and who you are. Identify yourself as a constituent, if you are one.
2. State your reason for writing and include the name and number of the relevant bill. Keep each letter to one issue.
3. Pick your three strongest talking points. Use examples and statistics to support your position.
4. Provide your contact information on both your letter and your envelope to receive a reply and to confirm you are a constituent.
5. Sign your letter.
6. Follow up with a phone call, a visit, or another letter at the appropriate time.

Tips:

- Always type or print—the text of the letter should be as easy to read as possible.
- Send a copy of your letter to the editor of a newspaper or magazine if it’s relevant.
- Consider holding a letter-writing party or meeting to get other people involved and increase the volume of letters sent.
- Write early in the session if you have ideas for specific pieces of legislation that should be introduced. To be most effective, direct these suggestions to members of the appropriate committee, subcommittee, or working group.

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- Don’t limit your letter writing to the negative - consider writing notes of appreciation and support. Elected officials hear mainly from people criticizing their actions, but this sends a very one-sided message. If your representative has taken a brave stand, express your thanks!
APPENDIX C
APPENDIX C: POTENTIAL ALLIES

Some of the best prospects for coalition membership are those individuals or groups with which group members already have a personal connection. Consider friends, co-workers, church connections, and groups of which you are already a member. Perhaps other Iowa Sierra Club chapters could assist in identifying local allies. You may also try to think creatively, identifying businesses or other groups that would be affected adversely by unwise land use decisions in Cedar Rapids and Linn County. Below are a few suggestions of local/regional, state, or national groups to consider contacting when trying to build your coalition:

**Local/Regional:**

**Environmental Advocates**
P.O. Box 1831
Iowa City, IA 52244

**Izaak Walton League, Linn County Chapter**
5401 42nd St. NE
P.O. Box 74404
Cedar Rapids, IA 52402
(319) 393-6624

**State:**

**Iowa Audubon Council**
4927 Ellis Road Northwest
Cedar Rapids, IA 52405-1004
Contact Person: Jim Durbin
durbinjames@mcleodusa.net

**Iowa Association of Naturalists**
Conservation Education Center
RR 1, Box 53 Phone: (319) 377-7194
Guthrie Center, IA 50115
(641) 747-8383

**Iowa Environmental Council**
7031 Douglas Avenue
Des Moines, Iowa 50322
(515) 244-1194
www.earthweshare.org/
iecemail@earthweshare.org

**Iowa Natural Heritage Foundation**
Insurance Exchange Building
505 5th Avenue, Suite 1005
Des Moines, IA 50309
Gerald Schnepf
515-288-1846

**Wallace House Foundation**
756 16th Street
Des Moines, Iowa 50314-1601
(515) 243-7063
www.wallace.org

**Iowa Prairie Network**
P.O. Box 516
Mason City, IA 50402-0516
Oel Hanes
(515) 424-5254
iowaprairienetwork.org
National:
Nature Conservancy
(Iowa Field Office)
The Nature Conservancy
108 Third Street, Suite 300
Des Moines, IA 50309-4758
515-244-5044
iafo@netins.net

Smart Growth America
1200 18th Street NW, Suite 801
Washington, DC 20036
(202) 207-3355
www.smartgrowthamerica.com
sga@smartgrowthamerica.org
APPENDIX D: COALITION CASE STUDY

The case of Engeldinger Marsh in Polk County is an example of how public participation in the realm of highway and transportation planning can be effective. In 1996 the Iowa DOT had a plan to widen U.S. Highway 65 from two lanes into four lanes, but the Engeldinger Marsh and its steadfast supporters posed a significant, and ultimately permanent, barrier to the proposal. The Engeldinger Marsh, located in Polk County near Bondurant, Iowa, is an 81-acre marsh with a 12-acre pond, which was carved into the landscape by the last glacier retreat. The marsh is unique in that it contains very rare sedge meadow habitat—native Iowa habitat (Des Moines Register 1996). Although a rural, two-lane highway was already running through the marsh, the proposed expansion would have dug into the marsh with heavy machinery and taken up an additional 100-foot strip of marshland, or 10 acres worth of sedge meadow and 4.5 acres of other wetland habitat (Bowers 1997). The threat of losing some of Engeldinger Marsh brought many residents in the area to a feverpitch. Researchers, teachers, and wildlife enthusiasts would not settle for the IADOT’s offer to replace the lost sedge meadow and use intensive mitigation measures. Instead the residents started an intense letter writing campaign and enlisted the help of a state legislator in the area, Ed Fallon (Lown interview, 2004). Mr. Fallon was crucial for generating knowledge and concern about the project with influential leaders in the area. (Lown interview, 2004). The group of citizens talked with all of the various environmental groups around the state and formed the Friends of Native Iowa organization (Lown interview 2004). The group also had an independent study done on the area by a consulting firm, Jacobs and Associates (Lown interview, 2004). All of the letter writing and public education was paired with intense dialog with the IADOT. The citizen group insisted that the IADOT do not only its engineering homework, but also its environmental homework. The group engaged the ecologists within the IADOT.

While pressuring the IADOT to do more analysis about the impacts of the road on the marsh, the group stressed the importance of a cumulative impacts assessment. The notion of cumulative impacts was promulgated by the Council on Environmental Quality (CEQ). The CEQ is the federal agency charged with implementing the National Environmental Policy Act, 42 U.S.C. § 1431 et seq., which is the legislation that requires government agencies like the DOT
to create an EIS for proposed federal projects. Under the CEQ's regulations that implement NEPA, an EIS should look at not only the direct and indirect impacts that the project would have on a specific area but also the cumulative impacts that the project would place on the area. (40 C.F.R. §1508.25(c)). Cumulative impact is defined as the impact "on the environment which results from the incremental impact of the action when added to the past, present, and reasonably foreseeable future actions regardless of what agency ... or person undertakes such other action" (40 C.F.R §1508.7). The Engeldinger Marsh group emphasized to the IDNR the importance of looking at the cumulative impacts—these incremental impacts that add up through time—that the highway would have on the marsh (See CEQ 1997).

Eventually, the citizens' efforts were successful. In 1998, the IADOT decided it would not persist in the widening of the highway through the marsh. In 2000, the IADOT suggested a U.S. Highway 65 by-pass, which would take traffic on an alternate route around the Engeldinger Marsh (Lown interview 2004). Putting the pressure on the IADOT to consider the cumulative environmental impacts of the proposed expansion and engaging not only the engineers but also the ecologists in the IADOT led to a successful outcome for the citizen group.
APPENDIX E
APPENDIX E: MEDIA ADVOCACY

Writing to Newspublications
Adapted from Guidelines from Fairness and Accuracy in Reporting (FAIR)

General Guidelines
There are 101 excuses for not writing or calling the media when you see unfair, biased or inaccurate news coverage: "I don't know enough"; "I'm too busy"; "My computer crashed." Communicating with journalists makes a difference. It does not have to be perfect; not all letters to journalists need to be for publication. Even a one-sentence, handwritten note to a reporter can be helpful. If you take the time to type a substantive letter, send copies of it to two or three places within the media outlet-perhaps to the reporter, his or her editor, as well as to the letters-to-the-editor department.

If media outlets get letters from a dozen people raising the same issue, they will most likely publish one or two of them. So even if your letter doesn't get into print, it may help another one with a similar point of view get published. Surveys of newspaper readers show that the letters page is among the most closely read parts of the paper. It's also the page policy-makers look to as a barometer of public opinion.

When you write to journalists, be factual, not rhetorical. Do not personally attack them; that's more likely to convince them that they're in the right. Address them in the language that most journalists are trained to understand: Call on them to be responsible, professional, balanced and inclusive of diverse sources and viewpoints.

How to Write a Letter to the Editor
Letters that are intended for publication should usually be drafted more carefully. Here are some tips to keep in mind:

- Make one point (or at most two) in your letter or fax. State the point clearly, ideally in the first sentence.
- Make your letter timely. If you are not addressing a specific article, editorial or letter that recently appeared in the paper you are writing to, then try to tie the issue you want to write about to a recent event.
• Familiarize yourself with the coverage and editorial position of the paper to which you are writing. Refute or support specific statements, address relevant facts that are ignored, but do avoid blanket attacks on the media in general or the newspaper in particular.

• Check the letter specifications of the newspaper to which you are writing. Length and format requirements vary from paper to paper. (Generally, roughly two short paragraphs are ideal.) You also must include your name, signature, and frequently, your address and phone number.

• Look at the letters that appear in your paper. Is a certain type of letter usually printed?

• Support your facts. If the topic you address is controversial, consider sending documentation along with your letter. But don't overload the editors with too much info.

• Keep your letter brief. Type it whenever possible.

• Find others to write letters when possible. This will show that other individuals in the community are concerned about the issue. If your letter doesn't get published, perhaps someone else's on the same topic will.

• Monitor the paper for your letter. If your letter has not appeared within a week or two, follow up with a call to the editorial department of the newspaper.

• Write to different sections of the paper when appropriate. Sometimes the issue you want to address is relevant to the lifestyle, book review or other section of the paper.

• An increasing number of broadcast news programs (60 Minutes, All Things Considered, etc.) also solicit and broadcast "letters to the editor." Don't forget these outlets.

• If you sign your letters as a member of a community group, make sure you have that group's permission. If you do not have their permission, or if you are not sure, sign it as an individual.
How to Write an Op-Ed

Op-eds are longer than letters to the editor, and there is more competition for space. You may want to call the paper for length requirements (usually 600-800 words). "National" newspapers like the New York Times, Los Angeles Times, Washington Post, Christian Science Monitor and USA Today generally do not accept op-eds that are also being offered to other papers. But you can easily submit the same piece to five or ten local dailies in different regions—greatly increasing your chances of being published. If, on the other hand, you sent it to only one paper, let that paper know you are offering them an exclusive. The following are useful guidelines for writing a publishable op-ed piece:

- Try to write on a controversial issue being covered at that time.
- If you can use a professional title that suggests authority, do so.
- If you work for an organization, get permission to sign the op-ed as a representative of that organization.
- Avoid excessive rhetoric. State the subject under controversy clearly. You are trying to persuade a middle-of-the-road readership.
- If you rely on facts not commonly found in mainstream media, cite your sources. They should be as "respectable" as possible.
- Use a catchy title. If you don't, the paper will be more likely to run its own—which may not emphasize your central message. (Even if you do write your own headline, don't be surprised if it appears under a different one.)
- Be prepared to shorten and re-submit your article as a letter to the editor in case it does not get accepted as an op-ed.
How To Detect Bias In News Media

Media have tremendous power in setting cultural guidelines and in shaping political discourse. It is essential that news media, along with other institutions, are challenged to be fair and accurate. The first step in challenging biased news coverage is documenting bias. Here are some questions to ask yourself about newspaper, TV and radio news:

1) Who are the sources?

Be aware of the political perspective of the sources used in a story. Media over-rely on "official" (government, corporate and establishment think tank) sources. For instance, FAIR found that in 40 months of Nightline programming, the most frequent guests were Henry Kissinger, Alexander Haig, Elliott Abrams and Jerry Falwell. Progressive and public interest voices were grossly underrepresented. To portray issues fairly and accurately, media must broaden their spectrum of sources. Otherwise, they serve merely as megaphones for those in power

ACT: Count the number of corporate and government sources versus the number of progressive, public interest, female and minority voices. Demand mass media expand their rolodexes; better yet, give them lists of progressive and public interest experts in the community.

2) From whose point of view is the news reported?

Political coverage often focuses on how issues affect politicians or corporate executives rather than those directly affected by the issue. For example, many stories on parental notification of abortion emphasized the "tough choice" confronting male politicians while quoting no women under 18--those with the most at stake in the debate. Economics coverage usually looks at how events impact stockholders rather than workers or consumers.

ACT: Demand that those affected by the issue have a voice in coverage.

3) Are there double standards?

Do media hold some people to one standard while using a different standard for other groups? Youth of color who commit crimes are referred to as "superpredators," whereas adult criminals who commit white-collar crimes are often portrayed as having been tragically been led astray.
Think tanks partly funded by environmental groups may be labeled "enviro-backed" while think tanks heavily funded by business interests are usually not identified as "corporate-backed."

**ACT:** Expose the double standard by coming up with a parallel example or citing similar stories that were covered differently.

4) **What are the unchallenged assumptions?**

Often the most important message of a story is not explicitly stated. For instance, in coverage of women on welfare, the age at which a woman had her first child will often be reported—the implication being that the woman's sexual "promiscuity," rather than institutional economic factors, are responsible for her plight.

Coverage of rape trials will often focus on a woman's sexual history as though it calls her credibility into question. After the arrest of William Kennedy Smith, a New York Times article (4/17/91) dredged up a host of irrelevant personal details about his accuser, including the facts that she had skipped classes in the 9th grade, had received several speeding tickets and—when on a date—had talked to other men.

**ACT:** Challenge the assumption directly. Often bringing assumptions to the surface will demonstrate their absurdity. Most reporters, for example, will not say directly that a woman deserved to be raped because of what she was wearing.

5) **Is the language loaded?**

When media adopt loaded terminology, they help shape public opinion. For instance, media often use the right-wing buzzword "racial preference" to refer to affirmative action programs. Polls show that this decision makes a huge difference in how the issue is perceived: A 1992 Louis Harris poll, for example, found that 70 percent said they favored "affirmative action" while only 46 percent favored "racial preference programs."

**ACT:** Demonstrate how the language chosen gives people an inaccurate impression of the issue, program or community.

6) **Do the headlines and stories match?**
Usually headlines are not written by the reporter. Since many people just skim headlines, misleading headlines have a significant impact. A classic case: In a New York Times article on the June 1988 U.S.-Soviet summit in Moscow, Margaret Thatcher was quoted as saying of Reagan, "Poor dear, there's nothing between his ears." The Times headline: "Thatcher Salute to the Reagan Years."

**ACT:** Call or write the newspaper and point out the contradiction.

7) Are stories on important issues featured prominently?
Look at where stories appear. Newspaper articles on the most widely read pages (the front pages and the editorial pages) and lead stories on television and radio will have the greatest influence on public opinion.

**ACT:** When you see a story on government officials engaged in activities that violate federal law on page A29, call the newspaper and object. Let the paper know how important you feel an issue is and demand that important stories get prominent coverage.
How to Meet With News Management

If the coverage you object to is part of an overall pattern of bias, you might want to go beyond communicating with individual journalists. The next step is often an attempt to set up a meeting with management at the news outlet. In order to strengthen your presentation, the following steps should be observed:

1) **Gather evidence of bias**
   Clip offending newspaper articles. Jot down inaccurate, misleading or offensive comments in television news coverage. Record the political perspectives presented on talk shows. (See "How to Detect Bias in News Media," below.)

2) **Document the pattern of bias**
   Be prepared to explain how this is bad journalism (gives people an inaccurate or misleading impression of the issue or community, does not provide a balanced range of sources, etc.). Accuracy is of the utmost importance here.

3) **Build a coalition**
   Pull together several people who represent various constituencies in your community, heads of various organizations or coalitions who can speak for the broadest possible constituency. You might want to let media representatives know how many people you represent. Media outlets are businesses; the number of media consumers you represent is part of your power. Whether you are requesting that a station air a particular program to provide balance, or demanding that a newspaper use more neutral terminology, the key is demonstrating community support for your position.

4) **Set up the meeting**
   Write your local media outlet and ask for a meeting. If your complaint is about news, explain that you represent a broad constituency of people concerned with the issue and would like to meet with the editor/producer/news director. If you want a newspaper to take a particular editorial stand on an issue, contact the editorial board. A week or so later, follow up the letter with a phone call. Keep calling until you get through. Usually someone will meet with you.
5) Plan your presentation
You will probably want to meet or strategize ahead of time to go over who will say what, what not to say, what statistics or documentation you would like to provide, who will provide them, etc. First impressions are key. What do you want to communicate in the first minute?

6) Present your case
Be clear about what your goals are before you go into the meeting. Be polite but firm. Be persistent but do not lose your temper. Stick to what you can prove. Conclude your meeting with specific requests for improvements in coverage, the inclusion of views that are being excluded to provide balance, providing context or history on a specific issue, terminology changes, etc.

7) Follow-up
Send a letter outlining agreements reached to everyone who attended the meeting. If you see good coverage that might be a response to your concerns, promptly contact the highest level media representative present at the meeting and acknowledge the effort to respond to your concerns. If you see continued poor coverage, write or call to object. Unless you make it clear you are monitoring coverage on an ongoing basis, it is unlikely that you will influence news media.
Talking Points for the Highway 100 Situation

**Criticism:** The newly donated Preserve land was just donated by wealthy land owners who want to block the Highway 100 extension from being in their backyard. **Response:**

- The 100 acres donated to the Rock Island Preserve was not donated solely to block the extension of Highway 100 in the area.

- Other motivations and justifications for extending the preserve exist.
  - Sand Prairie habitat is native to Iowa and the extended Preserve gives Linn County a chance to protect and expand this unique habitat consistent with Iowa Code Section 455A.15
  - The newly donated land contains state threatened species, and it is worth accepting the donated land to maximize the area that these species have for dispersing their populations.
  - Rock Island Management Plan states that one of its management goals is to acquire all available lands that are suitable to buffer and expand the existing Preserve and to connect the Preserve to the Cedar River greenbelt corridor. The donated land serves this purpose and is an opportunity that most conservation boards would not turn down.
  - An open space plan for the region put together by the Linn County Regional Planning Commission, the same body that supports the road, recommends that development in the region should not conflict with the goal of preserving critical areas.

- The Linn County Conservation Board is charged with the responsibility of protecting natural areas in the County and specifically with the responsibility of keeping the Preserve in its natural condition.
  - Regardless of how or why the land was donated, the Conservation Board gladly accepted the parcels to be added to the public domain because there is unique habitat that will complement and strengthen the health of the original Rock Island Preserve.
  - It should not be controversial that a Conservation Board or the Sierra Club wants to maximize protection for habitat they think is rare and a benefit to the public at large.
  - Now that it is part of preserve, the Conservation Board has management plans for the land and has integrated it into the Rock Island Preserve.

**Criticism:** The newly donated land is not really unique habitat and should be returned to the tax roles. **Response:**

- While it may be true that the Rock Island Preserve is not pristine and untouched land, it has developed in the past 100 years into native prairie and wetland landscape.

- The sand prairie parcel in the newly donated land is contiguous with sand prairie areas in the original preserve. While railroad tracks do currently separate these two areas, the
railroad tracks still allow for native vegetation and only minimal disruption, whereas a four-lane highway would impose an expansive, non-vegetated barrier.

- The newly donated land gives the County an opportunity to expand the Cedar River greenbelt corridor further into Linn County
- The Byssus Skipper, a state threatened specie, is found in the newly donated land. Independent biologists have identified them there.
- The Blandings Turtle, another state threatened specie, is found in the newly donated land. Again, independent researchers confirmed the existence of these turtles in the newly donated land parcels.

**Criticism:** The Sierra Club and other opponents of the road have not compromised.

**Response:**

- While the Sierra Club does not want the road to go through the Preserve, opponents of the preferred alternative are willing to compromise about a new placement for the road.

**Criticism:** Other road alternatives are not feasible and do more environmental damage.

**Response:**

- A route that heads north from Highway 30 and avoids Hanging Bog Preserve and then connects to Tower Terrace and then back down to Highway 100 is more preferable.
- A Tower Terrace road crossing is in the Regional 2030 Transportation Plan and so a new river crossing is planned anyway in this spot.
- Unfortunately, all routes have attendant environmental consequences. The Sierra Club and the Conservation Board feel that a higher priority should be on placed on protecting the Rock Island Preserve at this juncture. A new river crossing is in the current transportation plan anyway, and therefore the Club feels that diverting the road further north at this time would not be creating any additional and unreasonable consequences.
- Other government agencies feel that alternative routes should be more intensely examined and considered.
  - The Iowa Department of Natural Resources
  - The United States Environmental Protection Agency

**Criticism:** The highway and the Preserve can both exist without compromising the ecological integrity of the Preserve.

**Response:**

- So many unknown factors about how the species are migrating and how the extra noise and other cumulative impacts will affect the Preserve. The Club does not want to take that risk.
- Mitigation will not be enough to save preserve from deleterious effects and so the Sierra Club’s hard stance on the preferred alternative that goes through the preserve is necessary. Road can cause the following:
  - Increased road kill
- Altered vegetation adjacent to the roadside, which would mean that it would affect the vegetation in parcels of sand prairie that would be adjacent to the proposed road
- Increase in disturbance-tolerant species that can out-compete with native species
- Increased run-off that changes the hydrology of adjacent land
- Increased introduction of chemicals like NaCl
- Altered animal behavior