

EXECUTIVE SUMMARY

This region has experienced a succession of lengthy and expensive battles over proposals to build new highways. In the case of the Crosstown Expressway, proposed for Chicago's west side during the 1960s and 1970s, public outcry killed the project outright. In Lake County, several expensive studies over multiple decades have attempted to justify a tollway extension, but there is still a lack of consensus about a proposed extension of I-53. And in Will County, the battle against the extension of I-355 has raged for almost as long as the I-53 battle; that project has experienced two setbacks due to inadequate engineering and environmental assessments.

Inadequate and incomplete engineering studies fuel public distrust and create tenable grounds for legal challenges. Years of study consume millions of public dollars and leave households in or near the proposed right-of-way in a legal limbo. Incomplete or inaccurate studies that spawn litigation have to be repeated to compensate for earlier omissions, or to accommodate changing conditions, adding millions more to the price tag for projects that may never overcome public resistance or environmental obstacles. For these reasons, we all want to be very careful to commit these planning dollars very wisely, for projects that have widespread public support and where the benefits can clearly be seen to outweigh the costs for the greatest number of people.

Whatever one's position on a given project, it is reasonable to assume all Illinois taxpayers can agree on certain principles in order to use our transportation funds efficiently:

- Projects must respond to a clearly documented need
- The benefits of a project must exceed the costs
- Professional studies must be comprehensive
- Professional studies must be accessible to the public.

On that fourth point, the Illinois Department of Transportation (IDOT) has taken an important first step. The Preliminary Engineering Study, Part A (PES-A) for the Prairie Parkway is available to the general public on an IDOT District Three web site,¹ along with a number of other useful documents.

The PES-A is the first in a series of multi-year investigations into the feasibility, cost and barriers to the project. The purpose of this review of the Prairie Parkway PES-A is to ask whether it will provide an adequate basis for future decision-making on the project, so that the public may be assured that planning dollars respond to a clear need. Active debate about the quality of this planning product can only improve the quality of future products.

The PES-A seems designed to reach a foregone conclusion rather than investigate the best alternative for responding to transportation needs. Our review of the PES-A reveals several areas where information is omitted, imprecise or inadequately analyzed. This review focuses heavily on the sections that are comprehensible to laypersons; a review of the engineering

¹ <http://www.prairie-parkway.com/>

assumptions by a qualified professional might uncover additional discrepancies in the formulae and methodologies used to assess future traffic volumes and patterns.

The PES-A fails to lay the groundwork for documenting the purpose and need for a highway in sparsely populated western Kendall and Kane Counties. It fails to build an adequate foundation to conduct federally required environmental assessments. It explicitly excludes populations protected under Environmental Justice policy and civil rights laws. In some areas, the PES-A violates “best practices” as well as the law.

This review of the PES-A begins with an overview of the context and history surrounding the proposed Prairie Parkway (pages 7 to 11). It concludes with a critique of selective sections of the PES-A (pages 12 to 23), sections that seem designed to support only one option. The critique reveals the following:

- The PES-A relies on large percentage changes to small base numbers to inflate the need for a new highway in western Kane and Kendall Counties.
- In several cases the data suggest one remedy and the analysts offer another, in order to justify the Prairie Parkway as the only logical alternative. Currently, the highest traffic volumes are in the eastern portion of the study area. Future increases in volume are expected to be “greatest in the central and eastern study area and become less pronounced to the western portions” (PES-A, p. 4-18).
- The study area stops short of I-39 to the west, which is an existing north-south interstate route with relatively low average daily traffic.
- The population in the study area is inflated in a number of ways. CTAQC provides a more precise count of population in this review. The number of people living in a 10-mile corridor centered on the recorded right-of-way is 47,925. The number of people living within the boundaries of the study area defined by IDOT is 552,093. The PES-A includes the total population of any county that falls partially within the study area, inflating the population to 1.2 million. The purpose of including populous areas at a good distance from the project is to conceal that only a negligible number of drivers and businesses could make regular use of the proposed project — unless rapid development follows construction of the highway.
- Safety analysis fails to differentiate between fatal, serious-injury and property damage crashes, current and forecasted.
- The PES-A fails to assess the effect on household income of forcing all residents of eastern and western sections of the study area to drive for all trips (households that have no options except to own multiple vehicles devote a much larger percent of household budgets to transportation costs than do households with travel options)².
- The bulk of the Characteristics and Measures section of the PES-A is comprised of traffic counts, driver surveys, travel forecasts and other technical measures that fail for the same reason the demographic analyses failed — the underlying assumptions are narrow and faulty or the use of large percentage increases to low base numbers inflates the seriousness of the need.

² *Driven to Spend*, Surface Transportation Policy Project, 2000

- The PES-A fails to begin an inventory of environmental and historic assets that would be impacted or destroyed by a proposed Prairie Parkway. The project's fate is directly and profoundly dependent on being able to overcome several tests to prove compliance with federal environmental standards.
- Public involvement activities conducted for the purposes of this study were somewhat improved over past efforts, but still left a great deal to be desired. Populations most frequently asked to take part in public involvement activities were disproportionately representative of sparsely populated sections of the region rather than from the congested eastern corridor.

There are serious omissions in the data gathered. Environmental justice implications are casually ignored. Minorities, non-drivers and seniors appear to have been excluded from the focus groups, a potential violation of Environmental Justice policies, and laws protecting civil rights and access by disabled populations.

The review concludes by offering the following recommendations derived from federal and state Context Sensitive Design policies:

1. Conduct public involvement workshops, focus groups and surveys that proportionally reflect the views of the population centers of Kane and Kendall County.
2. Remediate the exclusion of non-drivers, seniors and environmental justice communities.
3. Broaden the public dialog to include multimodal options (the public has repeatedly proposed multimodal options even when explicitly instructed to respond to a highway proposal).
4. Address the need to provide new options where congestion exists in a rapidly developing corridor that already has over half a million people but little travel choice.
5. Extensively study options that were proposed by the public, such as reconfiguring IL 47 (or a similar north-south corridor) and providing transit options in the populated eastern corridor.
6. Evaluate the potential to decrease traffic fatalities by offering alternatives to high speed auto travel.
7. Accurately assess the cost/benefit ratio to environmental, agricultural and community assets of a multimodal option in the eastern corridor versus the auto-only alternative in the sparsely populated western corridor.

Preface

The Chicagoland Transportation and Air Quality Commission (CTAQC) is a regional coalition promoting integrated land use and transportation planning, transparent decision-making and citizen participation in the planning process. Almost two hundred organizations from the six-county northeastern Illinois region have joined CTAQC as endorsers of a regional vision for participatory, community-building transportation planning. Local partners who assisted in the development of this report include Aux Sable Creek Watershed Coalition, Big Rock Creek Watershed Committee and Citizens Against the Sprawlway.

Throughout its ten-year history, CTAQC has been dedicated to the proposition that taxpayers' opinions should be solicited and documented. Transportation investment decisions should respond to those documented priorities.

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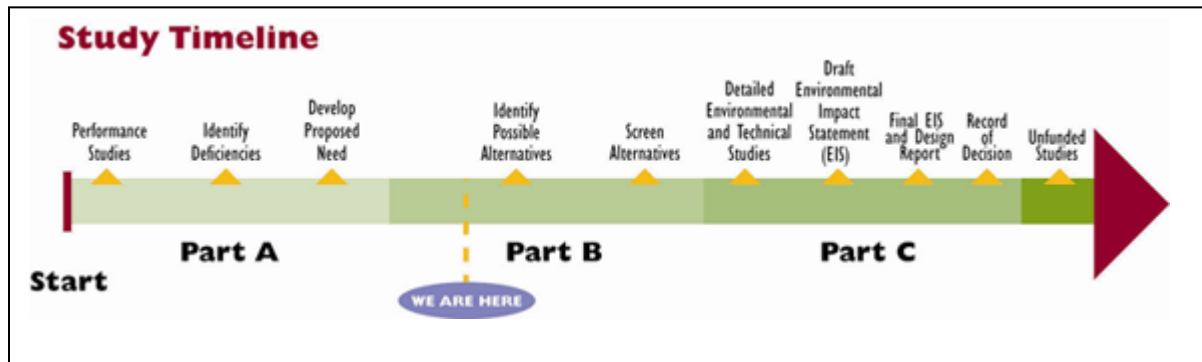
I. Introduction

The Context for Transportation Studies

The Illinois Department of Transportation (IDOT) has committed \$18 million to study a proposed “Prairie Parkway.” Federal sources provided \$15 million; the remaining \$3 million is from the state transportation budget. Planning a new transportation facility is a multi-year process; the planning horizon is likely to span more than a decade, especially if there is a lack of consensus in the region about the likely benefit of or need for the project.

The purpose of this review is to assess whether the Preliminary Engineering Study for the Prairie Parkway will provide an adequate basis for future decision-making on the project. Part A of the Preliminary Engineering Study (PES-A), which was released in 2004, is also known as the Transportation System Performance Report. The PES-A will frame the federally required “Purpose and Need Statement.” The P & N guides the development of possible alternative corridors, and may be refined as information evolves. If there is not a full, well-documented investigation of all the challenges and opportunities of a given project, the P & N and the alternatives may be limited in scope. A poorly planned project may increase, rather than decrease, congestion. Part A may narrow the options considered in Part B (the more detailed study that is underway now) unless those limitations are challenged.

Under state and federal law, the public is to be included in the decision-making throughout the process. The timeline below comes from the IDOT District 3 Prairie Parkway website.³



This PES-A was developed by a respected engineering consulting firm, but fails to address recent modifications in transportation decision-making at both the state and federal levels. The preliminary engineering study seems to have been crafted in response to an outmoded consultant solicitation for a *highway plan*, rather than a *transportation plan*. No attempt was made to verify that conjecture; the purpose of this report is to stimulate improvements to the process rather than assign blame for past decisions.

The Illinois Department of Transportation has, very recently, joined the Federal Highway Administration (FHWA) and other transportation professionals in acknowledging that the era of

³ <http://www.prairie-parkway.com/>

indiscriminate road building is over. What the taxpaying public demands now is best addressed by quality of life and connectivity enhancements. Projects of this magnitude are constrained by a number of federal and state laws. The PES-A and subsequent reports will be assessed for conformance with the requirements of those laws.

Inadequately constructed analysis leaves the state vulnerable in the courts of law and of public opinion. The project will surely be challenged in court; designation of specific parcels as “recorded” for one proposed right-of-way has already been challenged. Even if the proposed project should ultimately prevail, the “victory” will be expensive and time-consuming. Meanwhile, the opportunity to address popular consensus on transportation resources may be overshadowed by the conflict.

At this point, midway through the development of Part B of the Preliminary Engineering Study, there is sufficient time to correct the deficiencies of Part A, respond to the changing dynamics in highway planning and hopefully, avoid a long and costly series of court battles over this contentious issue.

Primary Finding: Preliminary Engineering Study is Inadequate

This analysis of the PES-A uncovers deficiencies and omissions in the *scope* of the investigation, in the *gathering and analysis of data*, and in the *required public involvement* processes. The PES-A fails to set the groundwork for future documentation of purpose and need, NEPA⁴ analysis and an eventual Environmental Impact Statement. Flawed statistical procedures render some of the information unreliable. The failure of the PES-A to assess the “transportation system” as a whole, rather than as a highway system, encourages the notion that the study is designed to reach a foregone conclusion. In some areas, the PES-A violates the law as well as “best practices.” Exclusion of the travel needs of substantial populations (non-drivers, minorities, elders or children) is certainly poor practice; it may be actionable in court too.

⁴ National Environmental Policy Act

II. History and Background

Official Actions

County

Kane County has a comprehensive growth plan, the *200 Kane County Land Resource Management Plan* (adopted in 2004) which explicitly preserves farmland in the western third of the county and attempts to direct growth to existing communities along the Fox River Corridor and elsewhere in the county. Kendall County's comprehensive plan is approximately ten years old. The county is conducting a township-by-township rewrite of the plan, which currently includes policies on farmland preservation, open space protection and greenways. Nearby DeKalb County adopted a comprehensive plan in 2000 which emphasizes agricultural preservation and encourages development in existing urbanized areas.

Regional

Every metropolitan region must, under federal law, develop a fiscally constrained long-range plan projecting at least 20 years into the future. These plans must be updated every three years. Theoretically, transportation planners — in consultation with land use planners, municipalities and the public — develop a general framework to be implemented by IDOT, the transit agencies, municipalities and counties. This framework must, by federal law, ensure the maintenance of existing infrastructure. Any proposals to expend limited resources for a new project must be screened for environmental impact, cost-effectiveness and other objective measures.

For a number of complicated reasons, the transportation planning process in northeastern Illinois operates contrary to the ideal. Political decisions determine what will be funded and built. The “plan” is fashioned around favored projects rather than projects to address regional needs. The official regional planning process is at best parallel to, and at worst beholden to, formidable political imperatives.

The Chicago Area Transportation Study (CATS) has developed the region's official long-range transportation plan since 1955. CATS is charged with developing plans for the six counties of northeastern Illinois: Cook, DuPage, Kane, Lake, McHenry and Will. Northeastern Illinois is in “serious non-attainment” of federal air quality standards. For purposes of air quality analysis, a small portion of northeast Kendall County is included in CATS' domain. Currently, discussions are underway about adding all of Kendall County to the official planning area.

Neither of CATS' last two long-range plans included the Prairie Parkway, at least not as it is proposed today. The *2020 Regional Transportation Plan*, developed in 1997 and revised in 2000, referred to an “Outer Belt Corridor from I-90 to I-88” as a project for future study (the current study is for a corridor between I-88 and I-80). The plan cautions: “Given the agricultural nature of this corridor, future studies will need to pay special attention to any proposed project's consistency with the *2020 Kane County Land Resource Management Plan*.” At least twenty projects were considered more critical for the region than the Outer Belt; no funds were allocated at that time for a study.

The *2030 Regional Transportation Plan* scrambled to align itself with rapidly moving political developments. The Prairie Parkway is described this way in the 2030 plan (adopted in October 2003):

The initial proposal is to introduce a new highway facility connecting I-80 to I-88 in Kane and Kendall Counties. This portion of Kendall County has experienced rapid growth in the past several years. The Illinois Department of Transportation has recently acted to preserve a corridor in the area, and has initiated a preliminary engineering study. The RTP recommends that alignment, staging and facility alternatives be considered in the study to address community and environmental concerns.

The project is in a watershed identified as very high priority for protection and restoration in Kane and Kendall Counties. The project also traverses prime farmland. Consideration of farmland protection is recommended.

The Northeastern Illinois Planning Commission (NIPC) provided CATS with an environmental impact score for every potential project prior to inclusion in the plan. The Prairie Parkway was among the most environmentally damaging projects measured.

State and federal action

Federal transportation law was revolutionized in 1991 when the “Highway Bill” became the Intermodal Surface Transportation Efficiency Act (ISTEA). ISTEA, and its successor TEA-21, require a comprehensive approach to meeting transportation needs. ISTEA calls for meaningful public involvement, which the FHWA defines as the three Cs — continuous, comprehensive and collaborative. Other federal laws, including the Clean Air Act (CAA), the National Environmental Policy Act (NEPA) and the Americans with Disabilities Act (ADA), impact transportation planning and funding decisions too. These will be discussed further in other sections of this report.

The FHWA began to promote better planning practices through “Context Sensitive Design” (CSD) in the 1990s. CSD’s three major foci are: 1) multi-modal planning; 2) inclusion of the public in the planning process early and often; and 3) respect for the historic, environmental, cultural and economic assets of a corridor. The Illinois General Assembly directed IDOT to develop a CSD strategy in 2003. IDOT has done so, rechristening its methodology as Context Sensitive Solutions.

CSS is being implemented very slowly in Illinois, partly because funding constraints prevent the retraining of engineers who are typically not skilled at facilitating public meetings. IDOT views the Prairie Parkway as a premier example of CSS implementation in Illinois.

The implementation of CSS in the case of the Prairie Parkway is complicated by previous IDOT action to preserve a specific corridor without conducting studies of the purpose, need and impact. For the purposes of this review, the proposed corridor is assumed to be generally illustrative of IDOT plans, although variations might be made if a final alignment is chosen.

Official Boundaries are Fluid

Most of the proposed Prairie Parkway is outside the traditional six-county northeastern Illinois region, where CATS, NIPC and IDOT’s District One office have had planning and implementation responsibility for many decades.⁵ Approximately three-quarters of the proposed corridor is in Kendall County (IDOT District Three). Most of the remainder is in Kane County (IDOT District One), and a segment that appears less than a mile touches on Grundy County (IDOT District Three).

What Does the Public Say?

There have been numerous regional planning processes — by NIPC, CATS, and CTAQC — in the last three to five years that provide ample documentation of the public’s priorities for Kane County. The heavily populated eastern edge of Kane County has a history of consensus on the need for north-south transit access. The documentary record for Kendall County is less robust because Kendall County is not part of the northeastern Illinois region.

NIPC documentation of public opinion

The most recent Kane County visioning process was a May 2004 Paint the Town Workshop conducted by the Northeastern Illinois Planning Commission. The report is available on NIPC’s website.⁶ NIPC’s participatory process elicits information through surveys and computer mapping. Survey questions are customized to reflect “headlines” defined by the community. Relevant headlines in Kane County include:

Headlines	Desirable, likely	Desirable, not likely	Likely, not desirable	Not likely, not desirable	Not sure
Direct jobs, population and investment to the centers	55.6	38.9	0.0	0.0	5.6
Improve existing transportation (Corridors) across the county	57.9	42.1	0.0	0.0	0.0
Commit to the County’s planning for agriculture, green space, biodiversity	57.9	42.1	0.0	0.0	0.0
Direct growth to existing centers	60.0	35.0	0.0	0.0	0.0
. . .combine greenway corridor with Prairie Parkway — 1 mile wide, no commercial development	10.5	78.9	0.0	10.5	0.0
Enhance intra-suburban mass transit, e.g. Star Line	50.0	45.0	0.0	5.0	0.0
Improve . . . Randall Road corridor with bus transit, trail, commuter bike	73.7	26.3	0.0	0.0	0.0

⁵ The six-county area includes Cook, DuPage, Kane, Lake, McHenry and Will counties.

⁶ <http://www.nipc.org/cg/forums/clusterwrkshp/KaneReport.pdf>

In Kane County there is near unanimity on concepts like enhancing existing transportation and community assets, protecting open space, honoring county plans and increasing mass transit. When the Prairie Parkway is addressed, it is only in the context of minimizing the harmful impacts if the project becomes a reality — constructing the road is not a priority. These results come from anonymous keypad polling of a study group that was comprised of municipal, county and other governmental representatives (80% of the total group) and general community members (20%).

CATS documentation of public opinion

CATS publishes all documentation related to its plans as raw data, without analysis. Recently collected public opinion revolved around the adoption of the 2030 Regional Transportation Plan (2003). The Center for Neighborhood Technology (CNT) conducted a limited analysis of 280 comments published by CATS through May of 2003⁷. General themes, such as support for a particular mode, were tabulated. Hundreds of individual projects were mentioned; CNT analyzed only the comments for the large projects. The following is an excerpt from that report:

The table below shows the range of opinion among the 280 tabulated responses on the five major projects that were most often mentioned.

	Total ⁸	Rt 53 ext	I-355 ext	Prairie Pkw	I-290 expansion	E-W transit
Favor	69	32	16	8	3	15
Oppose	50	22	10	26	17	0

In general it is fair to say that road expansions, extensions and new projects are much more controversial than transit projects and in some cases are overwhelmingly rejected by the public. There is little ambiguity about the taxpayers' desire on the Prairie Parkway and the widening of I-290. The Prairie Parkway case is even more conclusive when one looks closely at the eight favorable responses. Three of the responses coded as in favor of the Parkway were specific in saying that right-of-way should be preserved for a future decision on the need for the road, rather than supporting construction of the road.

Investment in transit was resoundingly desired throughout the region. A summary of the findings from the CNT review are below:

There was overwhelming support for transit investment (transit investment includes mentions of specific projects, as well as general expressions of support for either rail or bus). Of the 280 comments tabulated from Volume I, 166 were in support of either general or specific transit improvements.

Connecting Communities documentation of public opinion

The Chicagoland Transportation and Air Quality Commission conducted widespread public outreach in 2001 and 2002, in anticipation of the CATS 2030 Regional Transportation Plan.

⁷ *Analysis of Public Comment on a Prairie Parkway Alignment*, Center for Neighborhood Technology, 2004, <http://www.cnt.org/tsp/trans/ctaqc/prairie-parkway>

⁸ Some commented on more than one project, making the sum of all comments larger than the number of commenters.

Like NIPC, CTAQC published a summary report from each local meeting. The Kane County Connecting Communities report is available on the CTAQC website.⁹ The primary recommendations from the summit were:

- Invest heavily in transit in the Fox River corridor.
- Increase public participation in planning.
- Make those small bicycle and pedestrians improvements now.
- Respect our county land management plan.

In reference to the fourth recommendation, Kane County residents said, “Institutional attempts to create an outer belt highway should be suspended indefinitely.”

CTAQC revisited each community two years after its original (2001) meeting. Results of the December 2003 Kane County meeting can be found on the CTAQC website.¹⁰ In assessing the two years that elapsed since their original recommendations, Kane County residents reported:

Caucus participants generally supported county land use and transportation plans. There is concern that Kane County plans are jeopardized by unchecked development in adjacent counties or by political agendas that are pursued “behind closed doors,” particularly the outer beltway proposal. In particular this group was adamant that the outer beltway project be abandoned. It is a project that does not reflect the interests of the residents of the region, but rather the interests of developers and elected officials.

⁹ <http://www.cnt.org/tsp/trans/ctaqc/cc/summitpubs.htm>

¹⁰ <http://www.cnt.org/tsp/trans/ctaqc/state-of-region-report/>, select Kane County report

III. Review of the Preliminary Engineering Study

Of the seven chapters of the Preliminary Engineering Study, Part A, most provide a woefully inadequate basis for future decision-making. To avoid repetition, we will focus on the four chapters where these biases are most egregious and on one additional area that is overlooked entirely — Environmental and Historic Constraints. The chapters of the PES-A on which we focus are:

- A. *Socioeconomic Analyses*
- B. *Traffic Characteristics/Transportation System Performance Measures*¹¹
- C. *Public Involvement*

An additional section on Environmental and Historic Constraints follow the review of the above chapters.

A. Socioeconomic Analyses

The PES-A consistently relies on large percentage changes to small base numbers to inflate the need for new transportation infrastructure in western Kane and Kendall Counties. The study area, which falls mostly in Kendall County (population 54,544) is unrealistically inflated to include 1.2 million residents. The transportation challenges faced by residents of the Fox River Valley are noted but unheeded in the effort to justify a new highway.

There are serious omissions in the data studied on a variety of levels, including:

- Environmental justice implications are casually ignored by skewing the data so that older, younger, non-white and disabled residents are excluded.
- Safety analysis fails to differentiate between fatal, serious-injury and property damage crashes, current and forecasted.
- The PES-A fails to assess the effect on household income of denying transportation options to residents of eastern and western sections of the study area.

Population

The official study area defined in the PES-A includes all of Kendall County (2000 population 54,544) and a portion of DeKalb, Grundy, Kane, LaSalle and Will Counties. The PES-A begins with the assumption of a population of nearly 1.2 million by computing the total populations of those counties, rather than computing the study area population. For instance, all of Will County's population is included in computations although only a narrow sliver on the western edge of Will County is within the study area. Given the large geographic area of Will County, its inclusion in totality is unwarranted. For instance, the distance from Yorkville — roughly the center point of the Prairie Parkway — to Crete, in eastern Will County, is 64 miles. LaSalle County's total population of 111,509 is included in the projections although the only populated portion, the LaSalle-Ottawa-Peru urbanized area in the center of the county, is not within the study area (LaSalle County's projected growth areas are not within the study area either).

¹¹ For the purposes of this review, the PES-A chapters on "Traffic Characteristics" and "Transportation Performance Measures" are discussed simultaneously.

Kendall County, which appears to have about 75% of the proposed miles of Parkway, has 54,544 residents and is projected to grow by 140% to 131,000 by 2030. If the county reaches those projections, it will be less populous than Aurora is today.

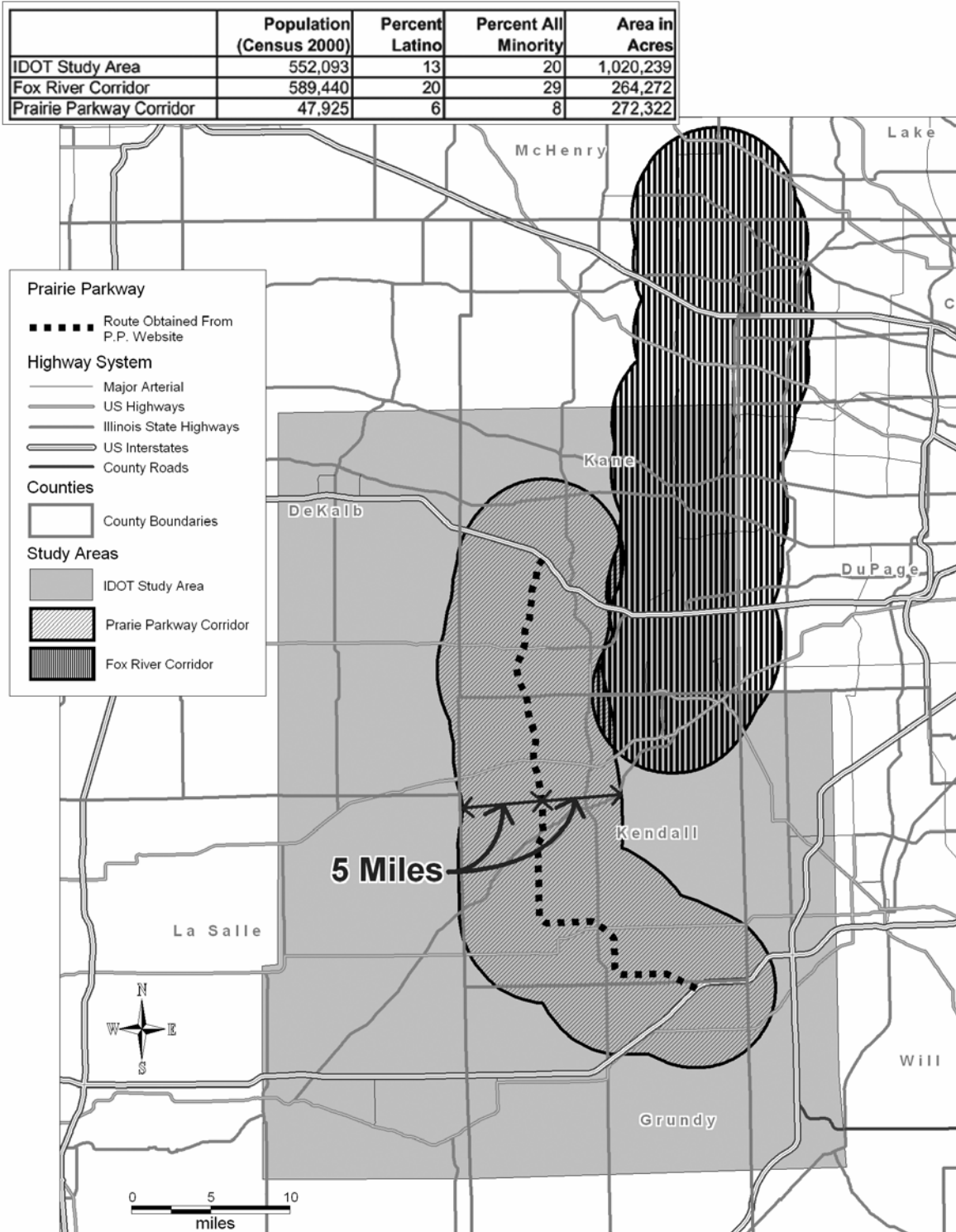
Calculations performed in the course of this review show that the total population living within the boundaries of the study area was 552,093 in 2000. The 1.2 million population figure used in the PES-A is an obvious attempt to inflate the number of presumed beneficiaries well beyond reasonable estimates. The actual population figures are reproduced in the table below, along with information on racial/ethnic diversity and the amount of land area covered by each of three geographies calculated for this review. The actual population of the corridor for five miles on either side of the proposed alignment (a ten-mile wide corridor) is displayed here as is the total population for the corridor five miles on either side of the Fox River, through the length of Kane County. The population of the Fox River Corridor is more than 12 times that of the Prairie Parkway Corridor; the population that needs relief from traffic congestion is in eastern Kane and Kendall Counties.

The PES-A does not report on racial/ethnic diversity of the study area. Our calculations show a substantial and growing minority population that may have been excluded from consideration under the limited parameters of the PES-A.

	Total Population	Percent Minority	Area in Acres
IDOT Study Area	552,093	20%	1,020,238
Fox River Corridor	589,440	29%	264,272
Prairie Parkway Corridor	47,925	8%	272,322

These complex relationships and geographies are illustrated in the map on the following page.

Figure 1. Population of the Study Area, the Fox River Corridor and the Prairie Parkway Corridor



The most populous towns within the corridor and their actual growth rates since 1980 are displayed below:¹²

Table 3				
Population by Municipality, Prairie Parkway Corridor, 1980 to 2000				
	1980	1990	2000	% 20 year growth
Minooka	1,427	2,561	3,971	178
Morris	8,833	10,270	11,928	35
Oswego	N/A	N/A	N/A	N/A
Plano	4,875	5,104	5,633	16
Sugar Grove	1,490	2,005	5,104	243
Yorkville	3,400	3,925	6,189	82
Total	20,025		32,825	64

The percentage growth rates for these communities are high, and the PES-A emphasizes the high percentages throughout its analysis of socioeconomic characteristics. But minimizing the actual population figures themselves — and focusing on the rate of population growth — does a disservice to the discussion of the need for the highway. Very small towns need only attract a small number of new residents to have massive growth rates. Established population centers may attract far more residents but see only marginal increases in growth rates because the population base was so large to begin with. To have a better perspective on the effect of numerical increases versus percentage increases, the table below displays growth during the comparable time period for communities in the Fox River Corridor.

Table 4				
Population by Municipality, Fox River Corridor, 1980 to 2000				
	1980	1990	2000	% 20 year growth
Aurora	81,293	99,581	142,990	76
Batavia	12,574	17,076	23,866	90
Elgin	63,798	77,010	94,487	48
Geneva	9,881	12,617	19,515	98
Joliet	77,956	76,836	106,221	36
Naperville	42,312	85,351	128,358	203
Plainfield	3,959	4,557	13,038	229
St Charles	17,492	22,620	27,896	59
TOTAL	309,265		556,371	80

The Prairie Parkway will require the investment of millions of dollars in an area that has seen its municipalities grow by 13,000 residents over a 20-year period (figures do not include Oswego, but the increase there will not substantially change the point). This comes at the expense of Fox River corridor residents, who are accommodating a quarter million more residents than in 1980.

¹² Illinois Department of Commerce and Economic Opportunity website:
http://www.illinoisbiz.biz/com/community_profiles/s.html

Although the PES-A makes reference to congestion in the heavily populated eastern section of the study area, the solution proposed is for the sparsely populated western portion.

In summary, the PES-A demographic analysis appears to:

- Inflate the importance of the growth rate in western Kane and Kendall counties.
- Ignore the very small change in actual numbers that the growth rate represents (somewhat more than 13,000 residents, or just over 650 per year)
- Overlook the most populous communities, the communities generally most in need of relief from congestion, at the far eastern portion of the study area.
- Drive development toward the agricultural land in western Kane and Kendall Counties. The eastern sector is the most desirable place to encourage growth, since infrastructure already exists to support an increased population and there will be less destruction of agricultural and natural areas.

The PES-A does not assess the potential effect of the Prairie Parkway proposal itself on the growth projections for the study area, i.e., it does not forecast what growth will be like with and without the highway. It appears to assume that past and future growth occur in a vacuum, unrelated to major public investments.

The PES-A proceeds to paint an inaccurate picture of households, employment, income and land use based on the inflated population figures.

Households

The study presumes an increase of 89% in the number of households in the study area between 2000 and 2030. There is no discussion of the household types anticipated. Will the study area be an island of young families in a metropolitan region that has become generally older as the baby-boom population has aged? Or will it have a proportional share of older households that may not be comfortable with or able to drive for all trips? Would a larger proportion of retired residents have less need for the commute trips on which so much of the travel analysis is based?

Employment

The study documents the unfavorable jobs-household ratio and the worsening of that ratio as the number of households has rapidly grown. Without an integrated land use and transportation approach, the PES-A anticipates that heavy residential development (which will inevitably follow construction of a highway) will generate large amounts of commuter traffic to jobs outside the area. There is no discussion of current and future agricultural employment. Significant employers reported in the "Land Use" section are clustered in the Fox River Corridor and the city of DeKalb.

Income

The PES-A reports that average household income of the study area will increase by 72% over thirty years, while average household income in the Chicago CMSA will grow by just 47%. There are no calculations of the ways in which travel choice, or lack of choice, will impact household income. Nor is there any discussion of the number of current and future households at the poverty level or without a vehicle.

Land Use

The land use section of the PES-A is a compendium of arguments against the Prairie Parkway. Most of the land is reported to be agricultural or protected open space. “Kane County policy is to keep suburban development east of IL47, after an earlier boundary attempt at Randall Road was not maintained” (PES-A, p. 3-17). City of DeKalb leaders came to a consensus at a “growth summit” that they hoped to grow by 2% (over period of time unspecified in the PES) (PES-A, p. 3-18).

As this section of the PES-A identifies specific commercial and industrial land uses, it becomes apparent that other than the urbanized corridor in the eastern edge of the study area and the city of DeKalb, there are only a handful of businesses scattered within the study area that have 300 to 500 employees. The discussion of land use strays outside the study area boundaries to DuPage County and the cities of Ottawa and Joliet (PES-A, pp. 3-17 to 3-19) in order to include larger employers. Employment projections for 2030 indicate that 25-year job growth in the majority of mile-square segments of the study area will be less than 25 jobs, or less than one per year — and this may be an optimistic scenario (Figure 3-4).

Comment

The analysis of numerical data is an area in which reasonable people can disagree. The failure of the analysts in this study to calculate the needs of specific populations like people with disabilities, youth/elder or low-income populations is unreasonable, however. The PES-A has no assessment of the current or future portion of the population that does not or cannot drive for reasons of age, ability or income. It fails to report the current and future proportion of the population that is minority and whether or how minority group travel patterns and needs differ in any way from the mainstream. Without redirection, these kinds of omissions will become institutionalized. For instance, focus groups conducted during the production of the PES-A failed to include non-drivers and minorities, even though minorities comprise 20% of the study area population.

B. Traffic Characteristics/Transportation System Performance Measures

Although the PES-A’s Executive Summary would lead the reader to believe that this is a transportation study and therefore potentially a multi-modal exploration of alternatives, the introduction to the chapter on Traffic Characteristics is explicit about this being exclusively a highway study. Within the two chapters assessed here, a one-half page section (PES-A, p. 5-29) on “Transit Thresholds” was the only exploration of future transit opportunities. (An earlier chapter, Study Area Transportation System, inventories existing transit routes and proposed transit expansions, but that information does not appear to be factored into the analysis of future performance.)

The bulk of the Characteristics and Measures section of the PES-A is comprised of traffic counts, driver surveys, travel forecasts and other technical measures that fail for the same reason the demographic analyses failed — the underlying assumptions are narrow and faulty. What’s worse, in several cases the data suggests one remedy and the analysts offer another, in order to justify the Prairie Parkway as the only logical alternative. Currently, the highest traffic volumes are in the eastern portion of the study area. Future increases in volume are expected to be

“greatest in the central and eastern study area and become less pronounced to the western portions” (PES-A, p. 4-18).

The PES-A analysts factored a minimum of transit improvements into the travel forecasts for 2030, but only those listed as “committed transportation improvements” in the 2030 Regional Transportation Plan were included (PES-A, p. 4-7). This means that only major capital projects were included and that potential options like increased service frequency or new bus routes were excluded. Therefore the PES-A travel forecasts only assume the impact of Metra extensions to Elburn and potentially to Oswego, neither of which address the need for north-south travel options. Alternatives evaluations need to be run during Part B of the PES, transparently calculating the impact of several north-south transit options in or near the Fox River corridor, where the actual congestion — present and projected — exists. This alternatives analysis should include bus, express bus, bus rapid transit and light rail options. It should also calculate how the population would disperse itself differently with strong transit options and a no-build scenario for the Prairie Parkway.

The analysis of truck traffic suffers from many of the same flaws. Highways are publicly funded but rail infrastructure must be built by private companies; therefore freight is often transported by truck where rail is insufficient or non-existent. There is no analysis of opportunities to shift truck traffic from roads to existing or new rail lines.

In a fashion similar to the socioeconomic analyses, relatively low traffic counts are the foundation for enormous percentage increases and for dire predictions of future gridlock. “Average Daily Travel” is expressed exclusively throughout Chapter 4 as a percentage so that it is impossible for the reader to assess whether 100% growth is from two vehicles per day to four, or from 2000 to 4000. The maps that should visually clarify the data only make it appear more complicated and alarming. Figure 4-6, Change in Travel Density 2000 to 2030, appears to signal massive congestion, until one realizes that the highest increases (10,000 vehicles or more per day) are on existing interstates and in the eastern areas that are dense enough to support transit (and where transit is reportedly desired by the populace). Travel density on arterials in western Kendall and Kane Counties needs to be compared to other arterials in the region to give some context. According to figures harvested from the IDOT “Average Daily Travel” (ADT) web site¹³ segments near the proposed corridor (west of IL 47) have the following ADT:

	Segment with low ADT	Segment with high ADT
US30	6,100	12,000
US34	12,200	13,700
IL71	7,000	10,000
IL47	6,300	16,100

¹³ <http://www.dot.state.il.us/siteindex.html>

In contrast, some of the roads in the eastern part of the study area carry twice as many vehicles and arterials in other parts of the region are up to four and five times the highest ADT experienced in western Kendall and Kane Counties.

Table 6		
Sample Average Daily Travel — Other Areas		
	Segment with low ADT	Segment with high ADT
<i>Fox River Corridor</i>		
IL25	8,300	21,800
IL31	14,800	25,500
<i>Outside Study Area</i>		
IL59 (Naperville)	42,600	51,100
IL56 (Warrenville)	17,800	18,800
IL19 (Elgin to Chicago)	13,600	48,400

The volume of traffic on interstates shows commensurate reductions when comparing western Kendall and Kane Counties to other parts of the region.

Table 7		
Average Daily Travel on Interstate Segments		
	Segment with low ADT	Segment with high ADT
I-55	44,500 (Channahon)	156,800 (Stickney)
I-80	21,800 (Sugar Grove)	167,300 (Lisle)
I-80	34,100 (Minooka)	135,300 (Thornton)

Expansion of existing north-south routes has been the most frequently mentioned recommendation of the residents of the study area who responded to opportunities to comment on the Prairie Parkway in 2001 and 2002.¹⁴ The PES-A does not address that recommendation, but future reports will have to respond by transparently evaluating those alternatives. Future analyses will also have to improve the evaluation of non-motorized modes, especially for the 80% of trips that are not commute trips. Although eight percent of DeKalb County residents walk or bicycle to work presently (PES-A, p. 2-1), walking and bicycling are dismissed as options (“non-motorized transportation presently is not an important mode of transportation for work trips” [PES-A, p. 2-34]). Walking and bicycling are not analyzed in terms of their potential contribution to future congestion relief.

The area in which the Characteristics and Measures analyses fail most completely is in the evaluation of safety and crash data. Future analyses need to distinguish between crashes with fatalities or injuries, and those involving simple property damage. The brief section on safety

¹⁴ *Analysis of Public Comment on a Prairie Parkway Alignment*, Center for Neighborhood Technology, 2004, <http://www.cnt.org/tsp/trans/ctaqc/prairie-parkway>

resorts to speculation in the absence of data, as in “the occurrence of left turn type accidents . . . may be attributable to (drivers) that become impatient (sic)” (PES-A, p. 5-34). The only data offered is a table showing the current and projected “vehicle miles traveled” and crash frequency (no indication of severity). Based on this sketchy data, unclear but ominous outcomes are predicted, with references to an “increase (in the) number of crashes,” and crashes that are “expected to increase significantly.”

The map found in Figure 5-17, High Accident Locations, 1999 to 2001, shows that most of the crashes occur in the populated eastern part of the study area. If population is the primary determinant of crashes, then the logic of building a road that will draw population further west is questionable. Why rearrange the population that will bear the risk instead of investigating less destructive — and less lethal — modal choices? Part B will need to present an ironclad case that fatalities and serious-injury crashes will not increase as a result of massive investment in an additional high-speed highway.

Issues that need to be addressed in future official studies, in addition to type of crash, include: relationship of speed to fatal and serious-injury crashes; number of fatal and serious-injury crashes in congested conditions; number of fatal and serious-injury incidents per transit mile (for comparison).

C. Public Involvement

Public involvement assessments conducted by engineering professionals often fall victim to predictable problems. The PES-A can be faulted for several of these problems, although the public involvement is slightly broader than some previous efforts. Public involvement activities reported on in the PES-A include stakeholder interviews and focus groups.

The stakeholder interviews included a broader than usual cast of actors; the consultant is to be commended for including a reasonable array of county farm bureaus and civic/environmental groups along with the customary municipal and business interests. Stakeholder interviews were “conducted to inform the stakeholders of the Preliminary Engineering Study and to describe the process . . .” according to the PES-A. Given that the PES-A does not look at alternatives to the Prairie Parkway, the stakeholders were likely constrained to respond to the project itself rather than the full range of alternative solutions to congestion. Feedback from the stakeholder interviews is reported as a list of comments with no indication of high and low priority. This information would be more useful if the reader could ascertain the relative frequency with which comments were made.¹⁵

The PES-A also includes results from focus group sessions conducted in 2003 by Public Communications, Inc (PCI, Inc.) on a contract administered by IDOT. Forty-one participants represented four categories: business owners/managers, property owners/farmers, drivers and general interest. The five topics that were under consideration included:

- Current transportation and travel patterns

¹⁵ The Center for Neighborhood Technology’s assessment of comments from an IDOT public comment period on tabulated the responses. The results are available in the *Analysis of Public Comment on a Prairie Parkway Alignment*, cited above

- Attitudes toward highway travel
- Public transportation
- Development
- Future travel needs.

Participant profiles (age, gender, occupation, place of residence) are explicit in the focus group report¹⁶ but not reported in the PES-A. The parameters for inclusion leave much to be desired. For instance, only one participant was older than 63. There were two-and-a-half times as many Kendall County residents as Kane County residents (Kane County is eight times larger than Kendall County, but not all of Kane County is in the study area). Of the twelve participants in the Property Owners/Farmers group, only two were farmers. While “Drivers” were a group specifically solicited, non-drivers appear to have been omitted from the groups. Race/ethnicity is not reported, leading to the supposition that the group was homogeneous. Twenty percent of the study area population is African American or Hispanic; this raises a serious question about whether environmental justice has been overlooked as public involvement is conducted.

These demographic omissions are significant in determining the substantive outcomes. The town of residence (rather than just the county) is listed for 22 of the participants in the PCI focus group report, but extracted from the PES-A. Of those 22, fewer than half had convenient access to transit, and service was surely infrequent for all but the two who lived in Aurora. It is not surprising that few reported using transit in the last month and most said they do not use public transportation at all. Deletion of the demographic information from the text reproduced in the PES-A gives a very incomplete picture of public perception, especially given the other exclusions: non-drivers, older populations and minorities, for instance.

D. Environmental/Historic Constraints

The PES-A does not inventory environmental and historic assets that would be impacted or destroyed by a proposed Prairie Parkway. Those assets will have to be thoroughly examined in future studies. A number of interstate projects in northeastern Illinois have been stalled, and some eventually abandoned, after years of expensive studies with weak or incomplete environmental analyses. Federal laws governing environmental impacts include the fairly well known Clean Air Act (CAA) and National Environmental Policy Act (NEPA). Regulations put forth by the US Department of Transportation and the Council on Environmental Quality spell out additional environmental requirements. For instance, when an Environmental Impact Statement is written it must rigorously and objectively evaluate a “no-build” alternative. And executive orders, such as the order on Wetlands and Floodplains or the Environmental Justice Order, provide additional requirements for project planning and construction.

Future studies will need to assess the air quality implications of additional highway infrastructure and calculate the air quality implications of a transit-intensive alternative. The northeastern Illinois region (including portions of Kendall County) is designated as a “severe non-attainment” area. This designation constrains the region’s ability to add to its severe air quality burden. An

¹⁶ *Prairie Parkway Qualitative Research: Focus Groups*, Public Communications, Inc., November 2003.

¹⁸ *The Prairie Parklands: An Inventory of the Region’s Resources*, Illinois Department of Natural Resources, 2001, <http://dnr.state.il.us/orep/c2000/assessments/pparkweb/pagei.htm>

early review of environmental and air quality impacts of the Prairie Parkway would be fiscally prudent. If the project will exceed federally mandated air quality thresholds or run afoul of water and endangered species regulations, then enhanced demographic and traffic analyses are an expensive but futile exercise.

The protected right-of-way for this highway slices through some of the most environmentally sensitive natural features in northeast Illinois, including two of the highest quality creeks in the state — Aux Sable and Big Rock — and the Fox River. The impact on endangered species known to inhabit these three waterways, the potential damage to Silver Springs State Park and the effect of contaminated runoff on groundwater aquifers are all serious threats deserving thorough and transparent investigation. The impact of a highway on the Prairie Parklands, which partially overlap the study area, should also be thoroughly investigated, given the rarity of natural assets there.

The authors of this report are not in a position to fund the extensive environmental assessments required and have no desire to duplicate studies that should be part of the official analysis. We include here a partial list of precious assets that may be threatened by this proposed project, with the expectation that successor reports to the PES-A will provide comprehensive, high-quality analysis of the costs and benefits of encroaching on these assets.

Water resources

- Class A Creeks such as the Aux Sable and Big Rock Creeks
- Existing or projected water shortages in Kane and Kendall
- Groundwater aquifers ranging from shallow ones tapped by homeowners to the Cambrian-Ordovician deep sandstone aquifers supplying groundwater to the Joliet, Morris and Marseilles areas¹⁸
- Sixty-seven percent of the river and stream miles in the Prairie Parklands are biologically significant and/or support state threatened or endangered species¹⁹

Environmentally sensitive areas, especially existing prairie fragments

- The Prairie Parklands are the largest tract of native tallgrass prairie in Illinois (Goose Lake Prairie Nature Preserve)²⁰
- The Prairie Parklands has the largest concentration of dolomite prairie in Illinois²¹
- The Prairie Parklands has four-fifth of the state's wet-mesic upland forest²²

Threatened and endangered species

- Twenty-four threatened or endangered prairie plants are found in the Prairie Parklands²³
- Thirty-three of the 34 state listed bird species breed in the Prairie Parklands²⁴

¹⁹ Ibid

²⁰ Ibid

²¹ Ibid

²² Ibid

²³ Ibid

²⁴ Ibid

- Threatened and endangered species of fish are found in Aux Sable Creek, Big Rock Creek and portions of the lower Fox River.

Archaeological assets

- The Prairie Parklands hold world famous fossils of prehistoric flora and fauna²⁵
- 1,386 archaeological sites have been located in the 6% of the Prairie Parklands that has been surveyed thus far²⁶

Protected public lands

- Goose Lake Prairie Nature Preserve
- Silver Springs State Park
- Midewin National Tallgrass Prairie

Historic and architectural assets

- Big Rock Township Farms (Mount Green, Merritt Davis, William Davis), Kane County²⁷
- Farnsworth House²⁸

²⁵ Ibid

²⁶ Ibid

²⁷ Landmarks Preservation Council of Illinois

²⁸ Ibid

IV. Conclusion and Recommendations

The challenge of addressing access and mobility needs in the far west sector of northeastern Illinois does not need to be difficult and divisive. The Federal Highway Administration (FHWA) and the state of Illinois have Context Sensitive Design policies that provide guidance for an improved study protocol. According to the FHWA, “Context sensitive design (CSD) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. CSD is an approach that considers the total context within which a transportation improvement project will exist.”

The following recommendations are offered to bring the *planning* process into conformance with federal and state CSD policies, and more importantly, to ensure that the any *project* built in the future will address the needs of current and future residents in the most comprehensive way possible:

1. Conduct public involvement workshops, focus groups and surveys that proportionally reflect the views of the population of Kane and Kendall County.
2. Remediate the exclusion of non-drivers, seniors and environmental justice communities.
3. Broaden the public dialog to include multimodal options (the public has repeatedly proposed multimodal options even when explicitly instructed to respond to a highway proposal).
4. Address the need to provide new options where congestion exists in a rapidly developing corridor that already has over half a million people but little travel choice.
5. Extensively study options that were proposed by the public, such as reconfiguring IL 47 (or a similar north-south corridor) and providing transit options in the populated eastern corridor.
6. Evaluate the potential to decrease traffic fatalities by offering alternatives to high speed auto travel.
7. Accurately assess the cost/benefit ratio to environmental, agricultural and community assets of a multimodal option in the eastern corridor versus the auto-only alternative in the sparsely populated western corridor.