



WHITE ELEPHANT WATCH: VOL. 3

## Wisconsin State Highway 23

By Kevin DeGood

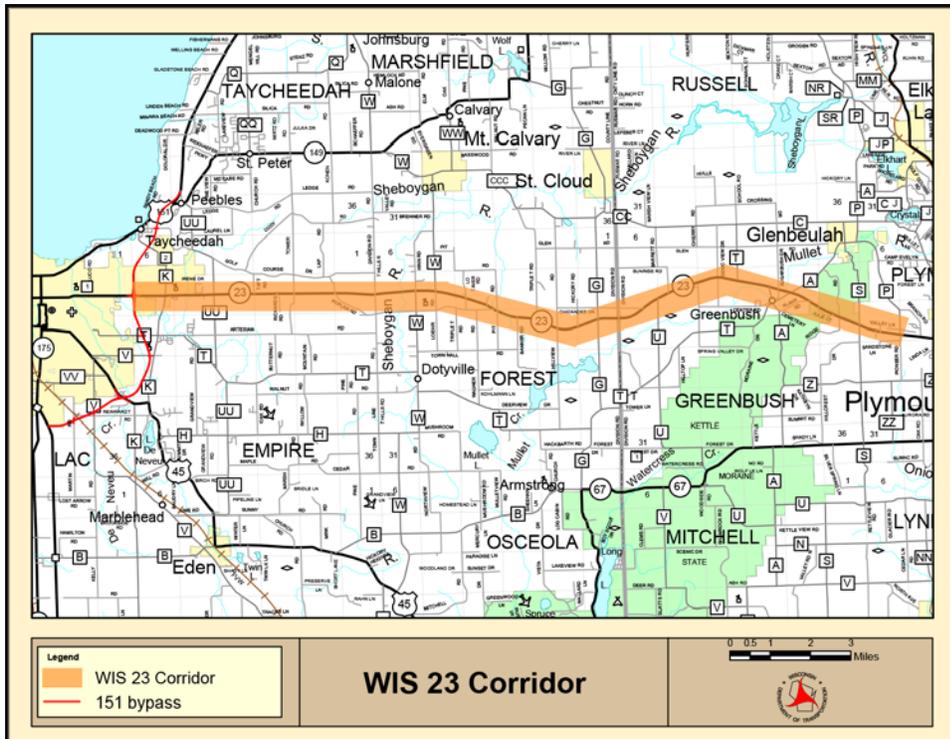
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*Infrastructure is the foundation of America's society and economy. Yet not all investments are worthwhile. In fact, unnecessary projects create a long-term, unproductive cost burden—a form of infrastructure overhang. The “White Elephant Watch” series profiles projects that demonstrate the failures of the current U.S. policy approach to transportation infrastructure.*

Federal transportation policy does not hold states accountable for their investment decisions. Moreover, states are not required to demonstrate the social, environmental, or economic value of their projects. Beyond certain procedural and design requirements, states have unfettered discretion to determine what to build, which often results in projects that fail to provide clear benefits or to advance national transportation policy objectives. Instead of apportioning funds based on need or the potential return on investment, the federal government distributes money based on formulas set in law. The steady flow of dedicated highway funding allows highly questionable projects to advance.

Take, for example, the proposed expansion of Wisconsin State Highway 23, or WIS 23, which runs east-west through Central Wisconsin. The proposed expansion of WIS 23 would transform 19 miles of rural two-lane highway into a divided four-lane highway, beginning east of Fond du Lac and terminating outside Plymouth. The estimated total cost for the project is \$145 million.<sup>1</sup> The WIS 23 widening project demonstrates the extent to which faulty travel demand assumptions, circular logic, and ecological fallacies plague transportation planning and project selection decisions.

## Wisconsin State Highway 23



Source: Wisconsin Department of Transportation, "WIS 23 Corridor," available at <http://projects.511wi.gov/wis23/wp-content/uploads/sites/113/map-overview.pdf> (last accessed July 2015).

### Using the many to attempt to justify the specific

WIS 23 has many flaws. Let's start with the ecological fallacy—otherwise known as improperly drawing conclusions or making inferences about specific individuals from larger population data, assuming that if something is true in the aggregate, it must also be true of individuals.<sup>2</sup> With respect to WIS 23, the Wisconsin Department of Transportation, or WisDOT, makes this mistake. In its environmental review documents for the project, WisDOT asserts that:

*Highway improvements that lower transportation costs and increase accessibility create a positive perception of the region, increase its competitiveness, and enhance economic development opportunities. ... Conversely, failing to improve the existing deficient access conditions may prevent new business and employment opportunities.<sup>3</sup>*

Through the tortured syntax common to environmental review documents, WisDOT attempts to apply generally accepted economic development principals to the specific project under consideration. WisDOT begins by arguing that "highway improvements" generally provide certain benefits and then tries to attach these benefits to the expansion of WIS 23. However, these general benefits are immaterial, since the only relevant question is whether expanding WIS 23 is justified on its own merits.

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## Seeking support in circular logic

WisDOT began to lay the groundwork for the expansion of WIS 23 in 1989 with the adoption of a long-range transportation plan called Corridors 2020.<sup>4</sup> The plan established a conceptual framework that designated numerous state highways as either “backbone” or “connector” roads.<sup>5</sup> The plan called for expanding these facilities over the course of several decades—including WIS 23, which was designated as a “connector.”<sup>6</sup>

The state attempts to buttress its economic development ecological fallacy by asserting that the expansion project will remedy “existing deficient access conditions.”<sup>7</sup> That sounds pretty bad. But what is the basis for the claim? It turns out that the basis for considering WIS 23 deficient originates from the state’s own plan. Beginning with Corridors 2020, the state set a goal of widening connector roadways, essentially creating a new statewide design standard. In the updated project documents, WisDOT asserts that expanding WIS 23 will allow the facility to “meet current design standards for this Corridors 2030 State Highway Plan.”<sup>8</sup> Why are connector roads marked for expansion in the long-range plan? Because they are deficient. Why are connectors deficient? Because they fail to meet the standard set out by the long-range plan. Circular logic abounds.

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## Unjustifiable travel demand estimates

Things really start to fall apart when it comes to WisDOT’s assumptions about future travel demand. The state argues that expanding WIS 23 is necessary to “serve existing and projected traffic volumes and improve operational efficiency.”<sup>9</sup> According to WisDOT’s original 2010 estimate, traffic on WIS 23 within the project corridor is expected to grow by more than 70 percent during the next 25 years.<sup>10</sup> Upon investigation, this estimate proves to be bewildering. In 2000, Fond du Lac had a population of 42,203.<sup>11</sup> By 2013, the population had grown by just 767 people, to 42,970.<sup>12</sup> This translates to an annual growth rate of slightly more than one-tenth of 1 percent. Yet WisDOT’s original forecast assumed that traffic would grow at 2.4 percent annually during the next 25 years—a rate 17 times faster than Fond du Lac’s actual population growth.<sup>13</sup>

These initial WisDOT travel demand estimates were so disconnected from reality that 1000 Friends of Wisconsin—an advocacy organization that focuses on land use and environmental issues—filed a lawsuit in federal court challenging the results.<sup>14</sup>

In 2013, in response to the lawsuit, WisDOT substantially revised its forecast for the corridor based on new baseline traffic counts collected in 2012. As is common practice, WisDOT broke the project corridor into segments. Table 1 shows the significant drop in estimated travel demand that resulted from WisDOT’s updated forecast. Figure 1 shows the revised annual growth rate when comparing the baseline traffic counts with the revised no-build estimates. Importantly, only one of the segments is estimated to have

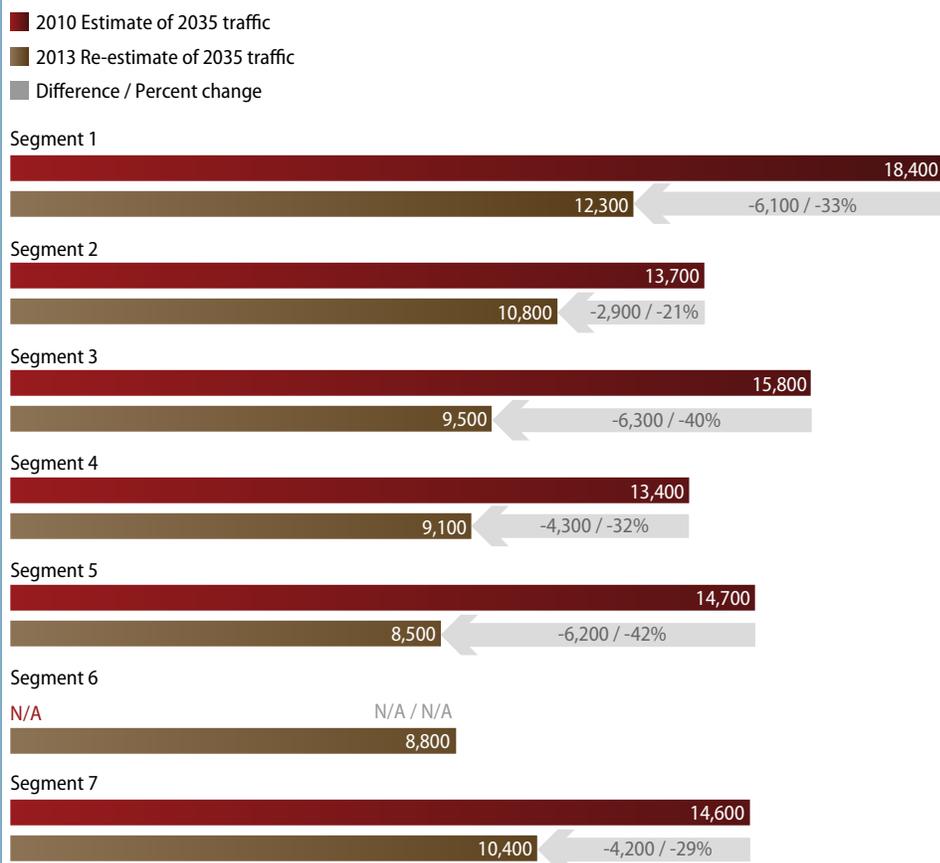
more than 1 percent annual growth in traffic during the next 23 years. Taken together, these results completely undermine the claim that expanding WIS 23 is necessary in order to accommodate travel demand within the region in the coming decades.

**TABLE 1**  
**WisDOT daily traffic count forecast for WIS 23 in 2035 assuming no-build**

Segment	2010 Estimate of 2035 traffic	2013 Reestimate of 2035 traffic	Difference	Percentage change
Segment 1	18,400	12,300	-6,100	-33%
Segment 2	13,700	10,800	-2,900	-21%
Segment 3	15,800	9,500	-6,300	-40%
Segment 4	13,400	9,100	-4,300	-32%
Segment 5	14,700	8,500	-6,200	-42%
Segment 6	N/A	8,800	N/A	N/A
Segment 7	14,600	10,400	-4,200	-29%

Source: Wisconsin Department of Transportation, "Limited Scope Supplemental Draft Environmental Impact Statement: Section 1.0 - Purpose and Need," (July 2013), available at <http://projects.511wi.gov/wis23/environmental/>

**FIGURE 1**  
**WisDOT daily traffic-count forecast for WIS 23 in 2035 assuming no build**



Source: Wisconsin Department of Transportation, "Limited Scope Supplemental Draft Environmental Impact Statement: Section 1.0 - Purpose and need" (2013), available at <http://projects.511wi.gov/wis23/environmental/>.

In its filings with the court, 1000 Friends of Wisconsin argued that WisDOT failed to consider alternatives to expansion that would have provided important safety and mobility benefits at a substantially lower cost and with fewer social and environmental effects than the \$145 million estimated for the widening. Specifically, 1000 Friends of Wisconsin argued that WisDOT never evaluated:

... a comprehensive upgrade of the two-lane highway (adding passing-lanes, reducing access points, addressing geometric improvements such as expanded shoulders, turn lanes, hills or sharp curves, and redesigning intersections where needed to improve safety—as requested by WisDNR [Wisconsin Department of Natural Resources], WisDATCP [Wisconsin Department of Agriculture, Trade, and Consumer Protection], and plaintiffs).<sup>15</sup>

In May of this year, Federal District Judge Lynn Adelman blocked the use of federal funding for the project based on deficiencies in WisDOT’s traffic forecast.<sup>16</sup> At this time, litigation is ongoing.

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## Conclusion

Elected officials and state departments of transportation often present big projects in binary terms: either build or do nothing. In reality, transportation improvements exist on a continuum, with smaller changes offering a highly cost-effective means of delivering benefits to residents. Similarly, the choice facing WisDOT is not four-lane expansion or nothing. Yet the unflagging push to expand highways on the basis of circular logic and unsubstantiated projections of population, economic, and travel demand growth obscure the flexibility inherent in transportation planning.

Unfortunately, federal policy does nothing to rein in state transportation departments. And WIS 23 demonstrates the absence of effective federal oversight. In short, when federal highway money flows on an annual basis, states are able to advance expensive, questionable projects rather than look for solutions that are far more affordable and sensible.

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## Endnotes

- 1 Rep. Terry Katsma and others, "Statement on the State Highway 23 Expansion Project," May 26, 2015, available at <http://legis.wisconsin.gov/assembly/26/katsma/media/1099/52615-joint-press-release.pdf>.
- 2 Web Center for Social Research Methods, "Research Methods Knowledge Base: Two Research Fallacies," available at <http://www.socialresearchmethods.net/kb/fallacy.php> (last accessed August 2015).
- 3 Wisconsin Department of Transportation, "Limited Scope Supplemental Draft Environmental Impact Statement: Section 1.0 - Purpose and Need for Proposed Action" (2013), available at <http://projects.511wi.gov/wis23/environmental/>.
- 4 Ibid.
- 5 Ibid.
- 6 Wisconsin Department of Transportation, "Limited Scope Supplemental Draft Environmental Impact Statement: Section 1.0 - Purpose and Need for Proposed Action."
- 7 Ibid.
- 8 Ibid.
- 9 Ibid.
- 10 Based on author's calculation from *ibid.*
- 11 Bureau of the Census, *Census 2000 Summary File 1 (SF 1) 100-Percent Data: Table P001: TOTAL POPULATION* (U.S. Department of Commerce).
- 12 Bureau of the Census, "State & County QuickFacts: Fond du Lac (city), Wisconsin," available at <http://quickfacts.census.gov/qfd/states/55/5526275.html> (last accessed July 2015).
- 13 Based on author's calculation from *ibid.*; Bureau of the Census, *Census 2000 Summary File 1 (SF 1) 100-Percent Data: Table P001: TOTAL POPULATION*"; Wisconsin Department of Transportation, "Limited Scope Supplemental Draft Environmental Impact Statement: Section 1.0 - Purpose and Need for Proposed Action."
- 14 Rob Schultz, "Legal challenge spotlights shaky traffic forecasting key to highway projects," *Wisconsin State Journal*, June 29, 2015, available at [http://host.madison.com/news/local/legal-challenge-spotlights-shaky-traffic-forecasting-key-to-highway-projects/article\\_e9d9c98e-ea24-56d5-8f99-a04b38f5b298.html#ixzz3gjhj03N0](http://host.madison.com/news/local/legal-challenge-spotlights-shaky-traffic-forecasting-key-to-highway-projects/article_e9d9c98e-ea24-56d5-8f99-a04b38f5b298.html#ixzz3gjhj03N0).
- 15 1000 Friends of Wisconsin, "Plaintiff's Brief for Judicial Review and Declaratory and Injunctive Relief" (2015), available at <http://www.1kfriends.org/wp-content/uploads/2015/02/1000-friends-of-wisconsin-brief-on-merits-2015-02-02.pdf>.
- 16 Schultz, "Legal challenge spotlights shaky traffic forecasting key to highway projects."