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UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
SAN ANTONIO DIVISION

AQUIFER GUARDIANS IN URBAN  
AREAS, and TEXANS UNITING  
FOR REFORM AND FREEDOM,

Plaintiffs,

v.

US FEDERAL HIGHWAY  
ADMINISTRATION, AMADEO  
SAENZ, JR., Executive Director, Texas  
Department of Transportation, and  
TERRY BRECHTEL, Executive  
Director, Alamo Regional Mobility  
Authority,

Defendants.

No.

Complaint For Declaratory And  
Injunctive Relief

**S A 08 CA 0154 FB**

INTRODUCTION

1. In this action, Plaintiffs, Aquifer Guardians in Urban Areas ("AGUA"), and Texans Uniting for Reform and Freedom ("TURF"), challenge the failure of the Federal Highway Administration ("FHWA"), the Texas Department of Transportation ("TxDOT"), and the Alamo Regional Mobility Authority ("ARMA") to comply with the requirements of the National Environmental Policy Act ("NEPA") for the proposed expansions of United States Highway 281 ("US 281") and Loop 1604. US 281 bisects the Edwards Aquifer recharge zone from north to south as it extends north of Loop 1604. Loop 1604 in this vicinity runs east to west through the recharge zone. These projects are being proposed as part of the "starter toll system" for Bexar County.

2. Plaintiff AGUA also challenges Defendants' failure to comply with the Endangered Species Act ("ESA") on the highway expansions' impacts to endangered Bexar County karst invertebrates and the endangered Golden-cheeked warbler.
3. Among other effects, the proposed highway expansions will: contribute to the ongoing degradation of the Edwards Aquifer, the region's primary water supply; subject nearby residents to noise pollution above federal standards as well as cut-through traffic seeking to avoid tolls; exacerbate harmful air pollution levels that already exceed federal standards for ground level ozone; diminish community cohesion, harm numerous businesses along US 281, and create visual blight for neighboring businesses and residents as well as for commuters; induce sprawl, depress real estate values, and substantially increase the cost of travel and commuting; increase congestion, travel times, and air, water, and noise pollution during the multi-year construction phase; further degrade sensitive and impaired surface waters and contribute to flooding; and contribute to the ongoing destruction of vegetation and wildlife habitat, harming wildlife, including the endangered Bexar County karst invertebrates and the Golden-cheeked warbler.
4. Defendants have violated NEPA and its regulations by arbitrarily and capriciously concluding that the expansion of seven-and-one-half miles of US 281 from a four (4) lane, free highway to a twelve (12) lane, tolled highway crossing extremely vulnerable water supply and endangered species habitat lands, and integrating this expansion with a similar large-scale expansion and conversion to tolling of 36.4 miles of Loop 1604, will have "no significant impact" on the human environment.

In reaching this arbitrary and capricious “finding of no significant impact (“FONSI”), Defendants seek to avoid preparing an “Environmental Impact Statement” (“EIS”) that would fully analyze the environmental, social and economic impacts of the proposed project(s) and of less damaging, less controversial, more affordable and more sustainable alternatives to the project(s).

5. Defendants have violated the ESA and its regulations by determining that the proposed US 281 project would not affect listed threatened or endangered species, and failing to use the best science available in reaching that determination.
6. This litigation seeks injunctive relief until such time as an EIS is prepared in compliance with NEPA describing and analyzing the full extent of the US 281 project’s direct, indirect and cumulative impacts on the human environment, and evaluating a reasonable range of alternatives to the proposed project, including alternatives that would provide significant mitigation of the adverse effects of the project. The scope of such an EIS should include the expansions of both US 281 and Loop 1604 because the two projects are integrated, connected, cumulative, and similar actions whose combined impacts cannot be adequately understood or evaluated in separate “environmental assessments” (“EAs”) as Defendants have done.
7. This litigation further seeks to enjoin actions that will likely result in the unlawful “take” of endangered species resulting from the construction and operation of the proposed US 281 project. Defendants may avoid such unlawful take by entering into formal consultations with FWS.

## **JURISDICTION AND VENUE**

8. The Court has subject matter jurisdiction over the claims for relief in this action pursuant to 5 USC. §§ 701 et seq. (actions under the APA); 28 USC. § 1331 (actions arising under the laws of the United States); 28 USC. § 1361 (actions to compel an officer of the United States to perform a duty); and 28 USC. §§ 2201-02 (power to issue declaratory judgments in cases of actual controversy).
9. Venue lies properly in this judicial district by virtue of 28 USC. § 1391(e) because this is a civil action in which officers or employees of the United States or an agency thereof are acting in their official capacity or under color of legal authority, a substantial part of the events or omissions giving rise to the claim occurred in this judicial district, and plaintiffs AGUA and TURF reside here.

## **PARTIES**

10. Plaintiff AGUA is a non-profit organization with approximately 400 members, whose mission is to strengthen the regulations designed to protect the Edwards Aquifer, to ensure enforcement of existing laws controlling activities affecting the Edwards Aquifer, and to mobilize public opinion to support efforts to protect the Edwards Aquifer Ecosystem, including its recharge and contributing streams, its native flora and fauna, and the people who depend on the Aquifer and live in its watersheds.
11. AGUA brings this action on behalf of its members, including many who live in the area and will be adversely affected by water quality degradation, wildlife habitat loss, traffic and construction noise, additional traffic, aesthetic impairment, increased air pollution and flooding, costs of tolls and urbanization of

the area. These are actual concrete injuries, traceable to defendants' conduct that would be redressed by the requested relief.

12. AGUA also brings this action on behalf of itself, since it suffers informational and procedural injuries from the failure of the Defendants to comply with NEPA.
13. Plaintiff TURF is a non-profit organization with 35,000 members statewide, over 5,000 in Bexar County and the surrounding region, and 2,100 in the US 281 project area. TURF's mission is to educate the public about the Texas government's new shift to tolling using controversial financing methods, the tolling of existing corridors, and the eminent domain abuse inherent in these plans. TURF is a grassroots group of taxpaying Texans who are asking for reforms that require accountability and good public policy as well as promoting non-toll, sensible transportation solutions.
14. TURF brings this action on behalf of its members, including many who live in the area and will be adversely affected by water quality degradation, wildlife habitat loss, aesthetic impairment, construction noise, additional traffic, air pollution, costs of tolls, and urbanization of the area. These are actual concrete injuries, traceable to defendants' conduct that would be redressed by the requested relief.
15. TURF also brings this action on behalf of itself, since it suffers informational and procedural injuries from the failure of the Defendants to comply with NEPA.
16. Plaintiffs have no adequate remedy at law.
17. Defendant FHWA is an agency of the federal government within the Department of Transportation that is providing funding and other federal assistance for the

expansion of US 281 and Loop 1604 and has approved the US 281 project, the EA, and the FONSI.

18. Defendant Amadeo Saenz is sued in his official capacity as executive director of TxDOT in order to enjoin construction on this project.
19. Defendant Terry Brechtel is sued in her official capacity as executive director of ARMA in order to enjoin construction on this project. ARMA is an independent governmental agency that was created by the Texas Transportation Commission and the Bexar County Commissioners Court in 2003 to handle transportation projects. TxDOT has delegated management of the US 281 and Loop 1604 project(s) to ARMA.

## **LEGAL FRAMEWORK AND FACTS**

### **Relevant Statutes and Regulations**

#### **A. National Environmental Policy Act**

20. "NEPA . . . makes environmental protection a part of the mandate of every federal agency and department," Calvert Cliffs' Coordinating Committee v. United States Atomic Energy Commission, 449 F.2d 1109, 1112 (D.C.Cir. 1971). NEPA's essential purpose is "to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment." 40 C.F.R. § 1500.1 (c). The Council on Environmental Quality ("CEQ")—an agency within the Executive Office of the President—has promulgated regulations implementing NEPA. See 40 C.F.R. §§ 1500-1508.

21. To accomplish its purpose, NEPA requires that all agencies of the federal government must prepare a "detailed statement" regarding all "major Federal actions significantly affecting the quality of the human environment . . . ." 42 USC. § 4332(2)(C). This statement, known as an Environmental Impact Statement ("EIS"), must detail the proposed action's environmental impact and any alternatives, and any adverse environmental effects or irreversible commitment of resources which would be involved should the proposed action be implemented. Id.
22. Whether an agency action "significantly" affects the environment takes into account both the context and intensity of a proposed action. 40 C.F.R. § 1508.27. The intensity of an action's impacts implicates numerous factors, including: "[t]he degree to which the proposed action affects public health or safety"; "[u]nique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas"; "[t]he degree to which the effects on the quality of the human environment are likely to be highly controversial"; "[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks"; "[t]he degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration"; "[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts"; "[t]he degree to which the action may adversely affect an endangered or threatened species or its habitat"; and "[w]hether the action threatens a violation

- of Federal, State, or local law or requirements imposed for the protection of the environment.” Id. § 1508.27(b).
23. CEQ regulations provide for the preparation of a document known as an environmental assessment ("EA") so that agencies may determine whether a particular action may have a significant impact on the quality of the human environment and thus require preparation of an EIS. 40 C.F.R. § 1501.4(b),(c). An EA also serves the additional purpose of “aid[ing] an agency’s compliance with the Act when no [EIS] is necessary.” Id. § 1508.9(a)(2).
24. Section 102(2)(E) of NEPA requires that every agency must also "study, develop, and describe alternatives to recommended courses of action . . . ." 42 USC. § 4332(2)(E). Every EA, as well as every EIS, must include a discussion of "alternatives as required by section 102(2)(E)" of NEPA. Id. § 1508.9(b).
25. Consideration of alternatives is at “the heart of the environmental impact statement.” 40 C.F.R. § 1502.14. The purpose of the requirement to consider alternatives is “to insist that no major federal project should be undertaken without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means.” Environmental Defense Fund v. Corps of Engineers, 492 F.2d 1123, 1135 (5th Cir. 1974).
26. NEPA also requires the consideration of the cumulative impacts of actions. CEQ regulations define “cumulative impact” at 40 C.F.R. 1508.7: “Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future



actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

27. Regarding the scope of an EIS, CEQ regulations require agencies to prepare a single EIS for “cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts.” 40 C.F.R. § 1508.25(a)(2).
28. “Connected actions” also require preparation of a single EIS. Id. at § 1508.25(a)(1). “Connected actions” are defined as actions that: “(i) automatically trigger other actions which may require environmental impact statements. (ii) cannot or will not proceed unless other actions are taken previously or simultaneously. (iii) are interdependent parts of a larger action and depend on the larger action for their justification. Id.
29. Agencies are required to prepare a single EIS for “similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography” if it is the “best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions . . . .” Id. at § 1508.25(a)(3).
30. FHWA has promulgated regulations implementing NEPA. See 23 C.F.R. § 771.

**B. Endangered Species Act**

31. The purpose of the Endangered Species Act is to “provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered

- species . . . ." 16 USC. § 1531(b). The Secretary of the Interior has delegated principal responsibility for implementing the ESA to the FWS, an agency within the Department of the Interior. *Id.* § 1532(15); 50 C.F.R. § 402.01(b).
32. Before a species may receive protection under the ESA, it must be listed by the FWS as "endangered" or "threatened." An "endangered" species is defined as "any species which is in danger of extinction throughout all or a significant portion of its range . . . ." 16 USC. § 1532(6).
33. Once a species has been listed, it is afforded a number of protections under the ESA. Foremost, the ESA requires that any "Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species." 16 U.S.C. § 1536(a)(2).
34. If the federal agency determines that it "may affect" listed species or critical habitat, formal consultation with FWS is required. 50 C.F.R. § 402.14(a). This threshold determination is low: "[a]ny possible effect, whether beneficial, benign, adverse or of an undetermined character, triggers the formal consultation requirement." 51 Fed. Reg. 19,926, 19,949 (June 3, 1986).
35. Formal consultation does not have to be completed if 1) as a result of a biological assessment (§ 402.12), or 2) as a result of informal consultation with FWS (§ 402.13), the agency determines, with the written concurrence of FWS, that the

project is not likely to adversely affect any listed species or critical habitat. 50 C.F.R. § 402.14(b).

36. Formal consultation is completed by the issuance of the FWS's biological opinion ("BO"). 50 C.F.R. § 402.14(l). If FWS determines that the project could jeopardize the continued existence of a listed species, the BO must "suggest those reasonable and prudent alternatives[, if any, that] can be taken by the Federal agency or applicant in implementing the agency action." 16 USC. § 1536(b); 50 C.F.R. § 402.14(h).
37. Also "it is unlawful for any person . . . to . . . take any [endangered species] within the United States . . . ." 16 USC. § 1538(a)(1)(B). "The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" endangered or threatened species. *Id.* at § 1532(19).
38. The ESA does allow FWS to issue a permit for a "taking otherwise prohibited by section 1538(a)(1)(B) of this title if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." *Id.* § 1539(a)(1)(B). In order to issue an incidental take permit, the FWS must determine that "the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking . . . ." *Id.* at § 1539(a)(2)(B)(ii).
39. If a Federal agency action might result in the incidental taking of a listed species, the action can be authorized through the Section 7 consultation process pursuant to an incidental take statement included in the BO. 16 USC. § 1536(b)(4). Upon concluding that any incidental take will not jeopardize the continued existence of a listed species, FWS must provide a written statement that 1) specifies the impact

of such incidental taking on the species, and 2) specifies those reasonable and prudent measures necessary or appropriate to minimize such impact. 50 C.F.R. § 402.14(i).

40. The ESA requires determinations to be based on the “best scientific and commercial data available.” See 16 USC. § 1533(b), 1536(a)(2), 1536(c).

**C. Procedural Background**

41. On December 2, 2005, AGUA and People for Efficient Transportation, Inc. (“PET”) filed a complaint challenging the US 281 project’s original 1984 EA and subsequent NEPA documentation.
42. On December 21, 2005, AGUA and PET filed a preliminary injunction to stop clearing and construction for the US 281 project, which had already resulted in a sewer line break and leak on December 14 that was not repaired until January 10, 2006.
43. In a January 10, 2006 letter to FHWA, TxDOT requested concurrence to proceed with a new EA for the US 281 project, stating that “our environmental studies and documentation could be combined in a single environmental document that would fully explore and explain the potential impacts of roadway projects in this area.”
44. On January 11, 2006, FHWA withdrew prior environmental clearances and construction on the US 281 project ceased. FHWA then approved resuming the NEPA compliance process with an EA, leaving the decision to prepare an EIS to a later day.
45. FHWA regulations classify a new controlled expressway as a significant action that normally requires the preparation of an EIS. 23 C.F.R. § 771.115.

46. Based on FHWA's withdrawal of approval of the US 281 project, the ceasing of construction of the project, and the reinitiation of NEPA procedures, AGUA and PET entered into settlement discussions with FHWA and TxDOT. The parties then settled the dispute with a joint motion to dismiss without prejudice, which was approved by United States District Judge Xavier Rodriguez on January 17, 2006.
47. TxDOT held a public hearing on February 21, 2007, and completed the new EA in May 2007. The EA recommended a FONSI.
48. TxDOT also held a public hearing on June 26, 2007 to present a separate EA for Loop 1604. TxDOT recommended a FONSI for that project as well.
49. Over 300 citizens, including elected officials and citizens representing a number of public interest groups with many thousands of members, filed written comments on the EA or made verbal comments at a public meeting on the EA. The vast majority of these comments opposed the US 281 project as proposed by the Defendants, and raised questions about the environmental, social, and economic impacts of the proposed US 281 project.
50. Expanding US 281 from a four lane roadway to a twelve lane project, with 6 tolled lanes and six lanes of free frontage roads, across the recharge and contributing zones of the Edwards Aquifer has for several years been a controversial proposal in the San Antonio region.
51. At the public hearings and elsewhere, there has been a high degree of controversy over the starter toll system of US 281/Loop 1604 and its effects.
52. FHWA issued a FONSI for the US 281 project on August 14, 2007.

53. In the August 30, 2007 Federal Register, FHWA posted a “Notice of Final Federal Agency Actions on United States Highway 281 in Texas,” establishing a bar to claims filed after February 26, 2008.
54. On December 27, 2007 AGUA filed a 60 day “notice of intent to sue” for violations of the Endangered Species Act on the US 281 project.

**D. US 281/Loop 1604 Toll System**

55. The starter toll system for Bexar County involves the tolled expansion of 7.5 miles of US 281 (from Loop 1604 to Borgfield Road) and the tolled expansion of 36.4 miles of Loop 1604, from (SH 151 to IH 10E). They will connect through a massive interchange over the Edwards Aquifer recharge zone.
56. The EA’s for each project estimate the costs as \$340 million for the US 281 expansion, and \$1.77 billion for the Loop 1604 expansion. The estimated cost for the US 281 project has since gone up to \$475 million.
57. According to ARMA, beginning in 2003 they started considering a “comprehensive toll system for US 281 and Loop 1604.”
58. On ARMA’s website, “US 281/Loop 1604” is one project. ARMA states that “it “will be pursuing the rights and ability to develop this project as a publicly financed project. The Alamo RMA will continue to work closely with the Texas Department of Transportation (TxDOT) on the transfer and development of this project.”
59. At its December 3, 2007 meeting, the San Antonio-Bexar County Metropolitan Planning Organization (“MPO”) approved ARMA’s financial terms for US 281 and Loop 1604. ARMA also received approval from the Transportation Policy

Board (TPB) for toll equity financing of US 281 and Loop 1604. As described by ARMA's Executive Director, the money from the MPO would leverage toll revenue bonds 1:3 to build four projects in the following sequence: 1) US 281 North Toll Project-Loop 1604 to the Bexar/Comal County Line, starting in summer 2008; 2) Western Extension-SH 151 to IH 10 W along Loop 1604, partial interchange at SH 151 and Loop 1604 and partial interchange at IH 10 W and Loop 1604, starting in late 2009; 3) US 281 and Loop 1604 interchange-partial interchange (five direct connectors), starting in 2010; and 4) Loop 1604 from IH 10 east to US 281, starting in 2011.

60. On December 10, 2007, TxDOT held a public hearing for ARMA's request to take over the US 281 project. ARMA assumed all liability and responsibility for existing and future environmental permits, and approvals and compliance with federal law.
61. The US 281 and Loop 1604 projects are "cumulative actions" under NEPA regulations.
62. The US 281 and Loop 1604 projects are "connected actions" under NEPA regulations.
63. The US 281 and Loop 1604 projects are "similar actions" under NEPA regulations.

**E. The Inadequate 2007 Environmental Assessment**

64. The bulk of the EA is simply a compilation of background information about the area surrounding US 281. The minimal and conclusory analysis downplays the direct, indirect, and especially the cumulative impacts of adding billions of dollars

worth of transportation infrastructure represented by the starter toll system of US 281/Loop 1604 to one of the most environmentally sensitive areas in the State of Texas, the Edwards Aquifer recharge and contributing zones.

65. The EA's strategy of piecemealing the effects of the US 281 project to reach a finding of no significant impact is most clearly seen in the deficient cumulative effects analysis, which only measures incremental impacts instead of the overall, cumulative impact that results from the US 281 project taken together with the Loop 1604 project and other public and private projects known to be planned or underway in the area.
66. The piecemeal strategy is also seen in how the agencies have approached the scope of the environmental document. Instead of preparing a single EIS for the US 281/Loop 1604 system, which is required for such cumulative, connected, and/or similar actions, the agencies have prepared separate but very similar EA's.
67. The 2007 EA identifies the needs for the US 281 project as consisting of 1) Compromised Safety; 2) Decreased Mobility and Operational Efficiency; and 3) Expedited Delivery and Early Implementation. The purpose is to improve safety, mobility and operational efficiency while meeting the third need of expedited delivery and early implementation.
68. The EA describes 10 preliminary alternatives but rejects all for further study as incompatible with the project's purpose and need except the "Construct Full Access-Controlled Expressway" Alternative (Preliminary Alternative 8).



69. The EA carries forward a build vs. no-build analysis, with two different alignments of the tolled expressway for the build alternative. The EA labels this as the consideration of “three reasonable alternatives.” Pg. 57.
70. Before settling on a massive, controversial tollway design, the EA fails to define and evaluate a reasonable range of alternatives appropriate to a project of this magnitude.
71. There is little consideration of alternatives that combine cost-effective strategies for meeting the defined purpose of the project. Options such as mass transit, reversible lanes, grade separations that remove stop lights, or Traffic System Management (TSM), that can work together are only considered individually and rejected as not meeting the purpose and need. The only combined alternative that the EA considers is the combination of constructing grade separations with adding one lane (Preliminary Alternative 6), which is then ruled out as being unsafe for “inadequate transition design.” This crabbed approach results in an arbitrary, capricious, and premature conclusion that only the entire 12 lanes, with toll financing, is to be evaluated at all and compared to a “do nothing” alternative.
72. There is no consideration of reversible lanes, telecommuting, ridesharing, and other innovative and often less expensive solutions that can maximize available capacity, ease congestion, and be implemented early.
73. There is little to no consideration of alternatives that could balance and reduce highway demand (especially peak demand) over time, instead of just increasing supply to meet short term needs. The proposed project, which will facilitate

additional growth, risks aggravating congestion and proving inadequate for the long term needs of the region.

74. The EA fails to examine other means of improving safety, such as local and express lanes with physical barriers, or the purchase of access rights. It is unclear how tolling and its associated frontage road design necessarily improve safety. The EA fails to examine any safety or operational problems with the preferred alternative's frontage road design, such as how frequent driveway spacings along the "free" frontage roads may lead to unsafe weaving and more accidents.
75. The EA fails to disclose other operational details and effects of the preferred alternative's frontage roads, including what the predicted level of congestion/LOS will be on the frontage roads, how much toll avoidance will occur, and the effects of such roads on induced growth, land use, and socioeconomic patterns. Research comparing corridors with frontage roads to equivalent corridors without frontage roads have demonstrated that frontage roads are associated with lower household incomes, lower population densities, lower percentages of bike trips to work, and higher unemployment rates. Kockleman, Kara M. et al. 2000. Frontage Roads in Texas: Legal Issues, Operational Issues, and Land Use Distinctions. Research Report No. 1873-1, Texas Department of Transportation, Center for Transportation Research, The University of Texas at Austin. The EA does not disclose or analyze any of the significant impacts that will come simply from the project's use of frontage roads.
76. For the purpose of analyzing any potential impact of the new toll road, the EA starts with the arbitrary assumption that there is no difference between frontage

roads and the freeway that is currently available in the US 281 corridor. For example, the EA asserts that cut-through traffic is “not expected,” in part, because the project simply adds new tolled capacity without changing existing capacity. This analysis fails to take into account, among other things, the difference between frontage roads and freeways—such as discrepancies in speed limits, signalization, spacing of driveway and street access and resulting congestion and safety concerns—and how these factors influence driver behavior and traffic patterns.

77. Tolling the US 281 corridor and creating a toll system in San Antonio will alter travel patterns to a substantial degree and cause significant impacts on adjacent streets and neighborhoods from cut-through traffic, which raises safety concerns in residential neighborhoods, diminishes real estate values, and places a greater burden on local infrastructure.
78. The EA fails to explain how the preferred alternative will result in “reduced vehicle operating costs” and does not consider how it could significantly increase costs in many respects.
79. There is no discussion of the negative and significant economic impacts to households and businesses in this existing highway corridor that will experience an increase in transportation costs or the overall negative economic and social impacts of increasing the cost of transportation in San Antonio. The EA mentions impact to businesses during construction, but not in terms of their long term viability. There is no analysis of impacts to homeowners at all.

80. There is also no discussion of the negative and significant impacts to real estate values that will be caused by the US 281 project's tolls; increased traffic and noise, light and air pollution; construction; and loss of aesthetic and visual value.
81. The EA points out the economic benefits of job creation, but does not discuss how the toll system will negatively and significantly affect jobs.
82. The EA fails to consider the economic, socio-political, and traffic impacts of having a tolled system for US 281 and Loop 1604 financed by many hundreds of millions of dollars of 30- or 40-year bond debt. Traditional transportation wisdom called for "pay as you go" projects and for providing alternatives and options so that drivers may choose routes which avoid bottlenecks and accidents, and maximize the efficiency of the roadway network. However, with a debt-financed toll road, the government entities (especially the RMA and the counties that created the RMA and appoint its Board members) are then pledged for decades to come to take actions that will restrict alternatives, increase traffic on the toll roads, and maximize toll generation, in order to pay off the debt (and, it is hoped for, spin off excess revenues to build other projects). For US 281 and Loop 1604, this means encouraging development in precisely the areas that are most environmentally sensitive and where local communities have worked hard to minimize development. It means designing the frontage roads and their signals, cross-streets, and driveway access to favor congestion, in order to discourage commuters from using the frontage roads and encourage toll payment. It also means choking off alternative transportation routes other than the frontage roads, in order to funnel more cars and trucks onto the toll roads. It may even mean

contractual terms, such as non-compete clauses and/or bond covenants, that prohibit or penalize actions that would reduce toll generation. Even if legal obligations do not reach local governments, the overlapping debt obligations of the RMA, counties, and municipalities mean that a debt default by the RMA can damage the bond rating of local governments. This situation creates extreme political pressure on local governments (including the Edwards Aquifer Authority) to avoid actions that would better manage growth, reduce congestion, steer development downstream of the Aquifer recharge zone, and protect the Edwards Aquifer, all in the name of promoting toll collections on 281 and 1604 and preserving the bond ratings of governmental entities in the region. None of these issues are addressed in the EA.

83. Similarly, the EA does not address the risks of bond defaults and/or subsequent taxpayer bailouts, stemming from lower-than-projected traffic growth and resulting reduced toll collections caused by (a) the cost of the tolls themselves; (b) the escalating price of gasoline associated with peak oil and the growth of competition for limited oil supplies from developing countries; (c) economic recession(s) affecting growth projections and commuter ability to pay; (d) increased public awareness and commitment to preserving critical Edwards Aquifer water supply watersheds and endangered species habitats; and/or (e) public policy changes aimed at reducing long-distance commuting in order to reduce air pollution and/or emissions of greenhouse gases.
84. In sum, the EA fails to disclose and analyze several significant socioeconomic impacts that will be caused by converting the primary north-south (US 281) and

east-west (Loop 1604) arteries of northern San Antonio to a toll system, including impacts to businesses, commuters, local government, lower-income and middle-class households, community cohesion, land use, real estate values, aesthetic values, travel patterns, congestion, and cut-through traffic.

85. The EA fails to consider whether the project's noise impacts, which are identified as exceeding federal standards, will be significant under NEPA. This is necessary because not all of the harmful noise will be identified as an impact to a specific receiver, and not all identified noise impacts will receive an abatement measure. Even where abatement is determined to be feasible and reasonable for certain noise impacts: "[t]he final decision to construct the proposed noise barrier would not be made until after the completion of the project design, utility evaluation and polling of adjacent property owners." Pg. 83-84.
86. The San Antonio area is currently in non-attainment under the Federal Clean Air Act 8-hour ozone National Ambient Air Quality Standards (NAAQS). The EA asserts that the preferred alternative will have no direct or indirect impacts and will, in fact, improve the air quality—but this assumption is undermined by the significant massive capacity-increase, additional vehicle exhaust, construction activity (including fugitive dust and delays), congestion along frontage roads and elsewhere, and induced growth that the US 281 project will cause and contribute to. Although air quality is in "poor or declining health," according to the EA, there is no cumulative air quality impacts analysis, which should be routine for a project the size of the US 281/Loop 1604 toll system that is occurring in a non-attainment area.

87. The EA does not consider the interaction of construction activity with quarries located in the area, or the quarrying of the materials needed for the project and their transport to the construction site. These activities threaten water quality and traffic accidents and have the potential to produce harmful levels of particulate matter from fugitive dust.
88. The EA states that there will be minor direct effects to the quantity or quality of groundwater. The EA underestimates the significance of the direct effects and the damage caused by impervious cover and polluted runoff, and fails to explain what it means by a “substantial amount of recharge” and what that is based on. Peer reviewed studies have shown that the geologic assessment method required by the State of Texas is only 33.75% accurate and underestimates the significance of 57.1% of karst features. Veni, George. 1999. A Geomorphological Strategy for Conducting Environment Impact Assessments in Karst Areas. *Geomorphology*, 31: 151-180.
89. The EA finds that the proposed project “could result in some adverse effects to water resources through degradation of surface water and groundwater” (pg. 189), but underestimates the extent of indirect effects and significant impacts that increased urbanization and other activity in the recharge and contributing zones will have on the aquifer and sensitive surface waters.
90. The EA fails to discuss the studied deficiencies of the standard State regulations and BMP’s that are used for water quality, construction, erosion and sedimentation, and flooding. The EA does not demonstrate how the project’s use

of these typical measures will, in fact, mitigate groundwater and surface water impacts to insignificance.

91. The EA implausibly asserts that there will be little difference in water quality when comparing the no build and build alternatives. The effects to water quality based on increased impervious cover, construction phase pollution, and increased traffic will be substantially different under the build and no build scenarios. Due to the highly permeable nature of the recharge zone, the Aquifer is particularly vulnerable to pollution from runoff. Water quality degradation from the proposed project will create a significant impact to the Edwards Aquifer and its contributing streams.
92. The EA fails to adequately analyze and demonstrate that impacts to groundwater quantity will be insignificant. The EA finds that it cannot predict whether recharge will be directly decreased or increased. Pg. 122. The groundwater technical report also concludes that “cumulative impacts with regard to the quantity of water in the Edwards and Trinity Aquifers are uncertain.”
93. Such “uncertainty” of effect on the “sole source” and highly vulnerable drinking water supply for the entire San Antonio region is alone sufficient to warrant the necessity of preparing an EIS.
94. The project area includes Mud Creek and West Elm Creek along with several of their tributaries. These creeks flow into Salado Creek, which is currently listed as an impaired waterway by TCEQ and EPA. Additionally, Cibolo Creek, along the northern edge of the project area, is also listed as an impaired waterbody and contains many recharge features. The EA fails to adequately consider the



- additional pollutant loading that the US 281 project will cause, creating significant, direct, indirect, and cumulative impacts to sensitive surface waters.
95. The EA says nothing about increased flooding downstream resulting from the preferred alternatives. The direct effects of adding 70 acres of impervious cover will substantially increase peak runoff, especially in the portion of the project crossing the recharge zone. Also, it is unclear how impervious cover was calculated for this project, so the exact total could be more than 70 acres.
96. The EA finds that direct and indirect impacts to vegetation would be “minimal.” In its December 14, 2006 letter to TxDOT, the Texas Parks and Wildlife Department writes of the US 281 project’s removal of 53 acres of woody (primarily Oak/Ashe Juniper association) vegetation: “Based on the amount of acreage lost and unless appropriate mitigation is proposed, TPWD cannot support a Finding of No Significant Impact.” TPWD recommends trimming vegetation where feasible and providing mitigation. In its response letter of April 18, 2007, TxDOT agrees to feasible trimming and provides information on its general tree-planting program, but the EA does not explain how feasible trimming or general mitigation will, in fact, reduce the impact on vegetation to insignificance.
97. The removal of 53 acres of vegetation is a significant direct impact, and especially a cumulatively significant impact in an area where dozens of other public and private projects have destroyed and continue to destroy valuable patches of woodlands and warbler habitat acre by acre.
98. The EA describes direct impacts to wildlife by stating that “[t]he construction of this project should have no greater affect on local wildlife populations than those

that typically result from any other project of this nature.” Pg. 153. This analysis fails to determine the significance of impacts to wildlife. Environmental Assessment of a project’s impacts is not relative to other projects but to the conditions existing in the area of the proposed project. It is impossible to determine based on this analysis that there are no significant impacts to local wildlife.

99. The indirect effects analysis finds no significant impacts for land use, water quality, vegetation, wildlife, threatened and endangered species, or air quality. This is in part because the Area of Effect excludes areas that will have the most significant impacts. The Area of Effect was based on generic national reference models looking at development effects up to one mile around a free way and two to five miles along major feeders, taking into account FM 1836 as a traffic generator. This Area of Effect is woefully inadequate for this particular project that provides the major traffic conduit into San Antonio from the rural hill country lands that are being quickly urbanized, growth that will be greatly facilitated under the preferred alternative. The proposed project will facilitate commuting into San Antonio from as far away as Johnson City and Austin, spurring exurban development that will alter scenic Hill Country landscapes, affect water quality, increase pressures on limited groundwater supplies, reduce agricultural lands, fragment, destroy and degrade wildlife habitats, increase peak travel congestion south of Loop 1604, and lead to noise, air and light pollution in the Hill Country. A properly defined and rigorous study would have identified these significant impacts.

100. Although it recognizes indirect and cumulative effects to vegetation, indirect and cumulative effects to the Golden-cheeked warbler are inexplicably left out.
101. The EA reaches the irrational conclusion that because there are no direct effects to endangered species, there are no indirect or cumulative effects to endangered species.
102. Although threatened and endangered species are in “poor or declining health” according to the EA, there is no cumulative effects analysis for endangered species because of previous findings of no direct or indirect impacts. As with air quality, the fact that this resource is in a poor condition should be all the more reason to perform a cumulative effects analysis for a transportation project the magnitude of the US 281/Loop 1604 toll system.
103. Significant direct, indirect and cumulative impacts to the Golden-cheeked warbler will, in fact, be caused by the project’s destruction and fragmentation of woodland habitat from land clearing and urbanization.
104. There will also be significant direct, indirect and cumulative impacts to endangered Bexar County karst invertebrates that will occur through cutting into, filling in, paving over, and altering runoff patterns in large areas of zone 1 and zone 2 habitat for endangered karst invertebrates, followed by decades of altered drainage and polluted highway runoff; destruction of feeding, breeding and sheltering habitat; disturbance to the flow of nutrients and water into and through karst habitat; edge effects; the introduction of fire ants and other exotic species; and the likely periodic spills of toxic pollutants from car and truck accidents. These actions will also result in unauthorized “take.”

105. "Zone 1" karst invertebrate habitat constitutes "areas known to contain one or more of the nine invertebrates." "Zone 2" habitat constitutes "areas having a high probability of suitable habitat for the invertebrates."
106. The over \$2 billion US 281/Loop 1604 toll system will directly add 43.9 miles and 317 acres of impervious cover to the recharge and contributing zones, and destroy 118 acres of woodlands. The US 281 project alone will involve 1,539,000 cubic yards (CY) of excavation and 2,730,250 CY of embankment in sensitive karst zones.
107. The EA incorrectly concludes that there will be no significant cumulative impacts for the resources that are studied: land, surface water, groundwater, and vegetation. This is because the EA's methodology of evaluating cumulative impacts is flawed, as shown in the conclusions of its cumulative impact assessments:

Any cumulative impacts on the resources analyzed are a result of the rapid urbanization of the area. This urbanization does have impacts on the resources considered in this analysis. However, the impact of any direct or indirect impacts of the proposed improvements to US 281 are insignificant when considering the cumulative impact of all reasonably foreseeable action on the environment.

[. . .]

The past and reasonably foreseeable actions in the area have impacted the resources considered in this study. It is a result of the urbanization of the area. The proposed action's contribution to the cumulative impact on the resources studied is negligible. It is well documented that the area has been rapidly developing without regard to the potential of improvements to US 281.

Pgs. 237-38.

This analysis is woefully deficient because the assessment is only measuring incremental direct or indirect impacts, in other words "the proposed action's

contribution to the cumulative impact.” For example, the EA summarizes the cumulative impact to groundwater as follows: “The proposed project’s contribution would be minimal. The project would contribute minimally to cumulative impacts. (70 acres of impervious cover in 19,660 acres within Bexar and Comal Counties aquifer recharge areas giving 0.36 percent of impervious cover).” For vegetation, the EA states: “The combination of the proposed action and anticipated development could result in the conversion of approximately 90,858 acres within the land use RSA; however, the proposed action would be responsible for only 0.06 percent of this total.” These percentages provide no measure of the cumulative impact to each resource.

108. The EA misconstrues the law by stating that “[c]umulative impacts are the incremental impacts that the project’s direct or indirect effects have on a resource *in the context* of the myriad of other past, present, and future effects on that resource from unrelated activities (CEQ 40 CFR § 1508.7).” Pg. 17 (emphasis added). This interpretation is legally impermissible and is designed to downplay the significance of cumulative impacts. NEPA regulations tell us that a cumulative impact is “the incremental impact of the action *when added* to other past, present, and reasonably foreseeable future actions.” 40 C.F.R. 1508.7 (emphasis added). It may be proper to measure direct and indirect impacts as against the existing environmental baseline, but the cumulative impact can only be evaluated after aggregating direct and indirect impacts with the impacts of other projects, and then determining if the resulting *total impact* is significant.

109. The land use study of US 281 and Loop 1604's cumulative effects is similarly flawed and conclusory, and stands as the basis for many of the arbitrary conclusions on cumulative impacts contained in the EA. The EA's basic position is that the two road expansions will simply serve existing and planned growth, concluding: "The potential improvements to US 281 and Loop 1604, as well as any other links in the transportation network, would complement the land use and transportation changes in the area, but it can not be considered the sole reason for the changes to occur. The proposed project could increase and accelerate development, but the impact would be inconsequential, since the area has been developing rapidly without improvements to US 281." Pg. 220. Whether the projects are the "sole reason" for the changes is not essential to a cumulative effects analysis. The precise issue is whether the US 281 project's effect of increasing and accelerating development, considered with other past, present, and reasonably foreseeable future actions, amounts to a significant impact. Instead, the EA keeps focusing on one side of the equation, the incremental impact, whose significance it also attempts to downplay without support.
110. The literature fully documents that significant highway expansions like the proposed 281 and 1604 expansions "induce" additional traffic, part of which results from increased growth in areas served by expanded highways. There is no support in the literature for concluding that such massive highway expansions will have "inconsequential" effects on growth rates and patterns in surrounding areas. The US 281 project will certainly cause significant direct, indirect, or cumulative impacts to land use and growth.

111. The Resource Study Areas used for the cumulative effects analysis were also inadequately defined and fail to capture the true extent of the project's impacts.
112. The EA fails to discuss the cumulative impacts on groundwater, surface water, and the community of having simultaneous and sequenced construction projects occurring in the US 281/Loop 1604 area over a long period of time. Although direct impacts from construction are predicted, the EA does not consider significant cumulative impacts from detours, re-routing, and road intersection closures; storm runoff, flooding and water quality issues; fugitive dust and increased noise levels; vegetation and soil impacts; migratory nesting species and potential threatened and endangered species; and pedestrian and vehicular safety issues.
113. Despite the fact that previous and very limited clearing for the US 281 project caused a sewer line break and leak, the EA inadequately explores the effects of this incident and does not incorporate any special provisions to prevent future breaks and leaks.
114. In sum and in addition to the significant tolling, community and socioeconomic impacts previously described, the EA has failed to disclose and analyze several significant direct, indirect and cumulative impacts to air quality; noise; land use; groundwater and surface waters; vegetation; wildlife; and threatened and endangered species.
115. The EA fails to comply with NEPA and NEPA regulations by presenting inaccurate and unsubstantiated information on the direct, indirect, and cumulative effects of the US 281 project.

116. The EA fails to comply with NEPA and NEPA regulations because its scope is limited to US 281 and does not encompass US 281 and Loop 1604 together as a single action or, alternatively, as “connected,” “cumulative,” and/or “similar” actions.
117. Defendant TxDOT decided before it reinitiated the NEPA process in January 2006 that the project would have no significant impacts because its previous determinations had reached this conclusion.
118. The US 281 project, when considering direct, indirect, and cumulative effects, significantly affects the human environment.
119. The US 281 and Loop 1604 toll system, when considering direct, indirect, and cumulative effects, significantly affects the human environment.

**Ecological Significance and Vulnerability of Edwards Aquifer**

120. There is nowhere in Bexar County where the effects of massive and rapid urbanization are being felt more acutely and on a more sensitive and important environment.
121. The expansions of US 281 and Loop 1604 crisscross the recharge zone of the Edwards Aquifer. The Edwards is a federally designated sole source drinking water aquifer that provides water to 1.5 million people and the spring flows of which are vital to the survival of endangered species in Comal Springs, San Marcos Springs, and in the Aquifer. The highway expansions also occur in proximity to park lands, including Camp Bullis, and will impact wetlands, caves, critical recharge areas, endangered species habitats, and other unique Hill Country resources.



122. The Edwards Aquifer was the first aquifer in the Nation designated as a "sole source" aquifer under the "Gonzalez Amendment" to the Safe Drinking Water Act. The amendment was authored by San Antonio Congressman Henry B. Gonzalez for the specific purpose of ending federal taxpayer funding of projects that threaten pollution of the Edwards Aquifer.
123. The lack of any central drinking water distribution facility for San Antonio makes treatment for any contamination especially cost-ineffective. As such, the best and perhaps only affordable protection for San Antonio's drinking water supply is prevention. For that reason, San Antonio voters have twice in the past six years approved 1/8-cent sales tax increases to pay for and permanently preserve land over the Edwards Aquifer recharge and contributing zones. Open space preserves both the quantity and quality of water.
124. The Edwards is a karstic aquifer and therefore is highly vulnerable to water pollution because surface water quickly enters the aquifer through recharge features, such as caves, sinkholes and streambeds, without significant filtration compared to aquifers that are fed by water gradually seeping through layers of soil and substrate.
125. FWS has recognized that "[h]ighways can have major impacts on groundwater quality (TNRCC 1994; Barrett et al. 1995). The TNRCC (1994) lists highways and roads as the fifth most common potential source of groundwater contamination in the Edwards Aquifer." 62 Fed. Reg. 23386.
126. Highway impacts can be divided into three phases: construction, presence, and urbanization. Angermeier, P.L., A. P. Wheeler and A. E. Rosenberger. 2004. A

Conceptual Framework for Assessing Impacts of Roads on Aquatic Biota. Fisheries December 2004, Vol. 29 no. 12, pp. 19-29 at 19. Highway construction and presence have generally concentrated and short to medium term impacts, while highway induced urbanization has diffused, yet severe, and long term impacts. A primary impact of the road construction phase is the discharge of sediment to waterways.

127. It is widely recognized that “sediments generated during construction can substantially depress certain populations of [aquatic species].” Angermeier at 21. Angermeier et al note that “even though effects of construction generated sediment may extend several [kilometers] beyond the construction site and persist for years after construction, large-scale and long-term effects rarely are assessed or studied.” Id.
128. Highways have substantial adverse effects on water quality from a wide range of pollutants besides total suspended solids (sediments). Chlorinated solvents, toxic metals, and pesticides are regularly detected in the Edwards Aquifer, at times in concentrations that threaten human health and sensitive plants and animals.
129. One assessment of water quality throughout the San Antonio region of the Edwards Aquifer found 28 human-made volatile organic compounds in samples from 89 different wells. These VOCs included carcinogenic benzene and toluene. The assessment concluded that the VOC detections were “associated with urban development” and that there exists a greater potential for VOC contamination because of increasing development in the aquifer recharge zone.

130. Water pollution abatement plans for highways are generally focused on total suspended solid (“TSS”) removal efficiencies. However, controls on TSS are not adequate surrogates for the other pollutants associated with highways.
131. Angermeier et al. conclude that transportation policy focuses primarily on impacts from the road construction phase and typically excludes the often far more extensive and severe impacts of urbanization. The authors explain:

Urbanization, the final phase of road development, affects aquatic systems across large spatial and temporal frames (up to thousands of square kilometers and centuries respectively). Urbanization . . . has accelerated in recent decades and is a major contributor to contamination of surface and ground water and to modification of hydrology in the United States. Over 130,000 km of US streams and rivers are impaired by urbanization, making it a leading cause of water-body impairment. Moreover, urbanization endangers at least 275 species in the United States, where it is the second-leading cause (next to non-native species) of species imperilment.

The relation between road building and urbanization is noteworthy in the context of road impacts on aquatic biota because it is typically ignored in official biological assessments. This omission is puzzling in NEPA-driven assessments . . . given that highway projects are one [of] the main types of federal action that cause urban sprawl. Effects of urbanization, which may lag behind road construction for decades, are generally excluded from impact assessments despite their severe, well-documented consequences for biota. More explicit recognition of the relation between road building and urbanization and of the effects of urbanization on aquatic biota is crucial to comprehensive assessment of road impacts.

Angermeier et al. at 22.

132. As proposed, the construction, operation and use of the US 281 project, when considering direct, indirect, and cumulative effects over time, will likely have significant adverse effects on water quality and recharge in portions of the Edwards Aquifer below and down dip of the project area.

**F. The Endangered Golden-cheeked Warbler**

133. The area north of the US 281/Loop 1604 intersection contains habitat that is vital to the recovery of the endangered Golden-cheeked warbler.
134. The United States Fish and Wildlife Service (“FWS”) issued an emergency rule to list the species as endangered under the Endangered Species Act (“ESA”) on May 4, 1990. 55 Fed. Reg. 18844. A final rule designating the species as endangered was issued on December 27, 1990. 55 Fed. Reg. 53153.
135. The preeminent reason for the listing of the species was the ongoing and threatened destruction and fragmentation of its habitat from highway construction and residential development. “Highway construction has destroyed warbler habitat in Texas, and planned future construction would destroy and fragment additional warbler habitat.” Id. at 53157.
136. The listing also noted that the “the greatest rate of Golden-cheeked warbler habitat loss has occurred in the southern and eastern portions of the Edwards Plateau” because of growth and development along the Austin-San Antonio corridor. Id. “Population growth and resulting loss and fragmentation of warbler habitat in these counties are major threats to the largest contiguous areas of preferred warbler habitat.” Id.
137. In 1992, a recovery plan was finalized to guide the conservation of the species. Golden-cheeked Warbler Recovery Plan, US Fish and Wildlife Service, Region 2 Albuquerque, New Mexico (1992) (“Recovery Plan”).
138. Although species loss can be caused by agricultural activities, the Recovery Plan considers urbanization along the Austin-San Antonio corridor as the most

imminent threat to the species “because habitat is permanently removed and is usually replaced by structures of some sort. Also the secondary impacts of noise, lighting, expanded infrastructure, urban predators, etc. in urban areas may have an additional negative impact on GCWs and their habitat.” Recovery Plan at 83.

139. The Recovery Team has emphasized the absolute necessity of maintaining and recovering the species in Bexar County if the Warbler is to survive. Recognizing that “some regions are more critical than others,” the Recovery Team found that “the most critical to the survival of the species are regions 5 and 6 (these two regions collectively encompass the Austin-San Antonio corridor).” Golden-cheeked Warbler Recovery Team April 2-3, 1998 Meeting Minutes: Responses to USFWS’s Questions at 1, 2; see also *id.* at Figure 4 (depicting range of warbler and placing Bexar County in Region 6).
140. The Recovery Team concluded that “because of their importance to the [Warbler’s] survival, at least two viable populations are needed for both recovery regions 5 and 6. The Austin-San Antonio corridor is undergoing rapid urban expansion, and thus each population in these regions should have enough area to support a carrying capacity of 2,000-3,000 singing males . . . Preserve design and configuration and buffers from urban areas . . . are critical to minimize edge effects and threats.” *Id.* at 6-7.
141. The US 281 and Loop 1604 expansion projects are located in Bexar County, Region 6 of the Recovery Plan.
142. For the EA, TxDOT’s consultants reviewed previous presence/absence surveys by other consultants and performed some additional surveys. The surveys mainly

focused on patches of woodland occurring within 300 feet of the proposed US 281 right of way.

143. The technical report notes that in 2002, FWS was unable to concur with a finding that the US 281 project was not expected to adversely affect the Golden-cheeked warbler. FWS indicated that there could be suitable habitat adjacent to 281, particularly west of Borgfield Drive, although subsequent surveys did not detect warblers in that area.
144. During the informal consultations for this EA, on March 9, 2006, FWS again stated that it believed there could be warbler habitat in the area of Borgfield Drive, but not likely adjacent to the highway.
145. In its December 14, 2006, letter to TxDOT, Texas Parks and Wildlife Department writes: "TPWD recommends TxDOT consult with the FWS Austin Ecological Services regarding the need for additional years of presence/absence surveys. TPWD also recommends preserving potential habitat the Golden-cheeked Warbler and Black-capped Vireo and mitigating for unavoidable loss or fragmentation of this habitat."
146. TxDOT's consultants estimate in the technical report that the number of male warblers in Bexar County is likely in the range of 300-400, but the report makes no effort to consider how the project may ultimately affect warbler recovery in Region 6 and if any mitigation should be provided.
147. The technical report states that "[a]ny projected land use effects within Golden-cheeked warbler Recover Region 6 may be expected to result in indirect impacts to the warbler." But the report goes on to make a finding of no indirect or

cumulative effects to warblers that is based on the flawed and conclusory land use study prepared for the EA. The consultants state “[t]he land use study indicates that this development has been occurring and will continue to occur independent of the US 281 expansion project. If no changes in land use are expected to result from completion of the US 281 expansion project, then the project cannot be considered to induce growth or cause changes in land use in areas not directly adjacent to the highway.” This land use study is not the best science and data available for determining effects to the warbler, and does not support a finding of no effect in any case due to its conclusory and flawed analysis.

148. The EA concludes that “there would be no effect” for the Golden-cheeked warbler. Pg. 170. Thus, for the purposes of ESA analysis, the conclusion is that the 281 project does not even reach the very low threshold of “may affect” that would require a “not likely to adversely affect” concurrence from FWS or commencement of formal consultations.
149. Through destruction and fragmentation of woodland habitat from land clearing and urbanization, the US 281 project easily meets the low threshold of “may affect.” Moreover, the project may jeopardize the species’ recovery while causing noncompliance of the recovery plan for Region 6 (Bexar County).

**G. Endangered Bexar County Karst Invertebrates**

150. The cave environments of central Texas have been recognized to support one of the most important cave faunas in the world. See e.g. Balcones Canyonlands Preserve Habitat Conservation Plan and Final Environmental Impact Statement. City of Austin & Travis County, Texas (March 1996).

151. The dissolution of calcium carbonate from limestone bedrock by groundwater forms the unique subterranean caves, sinkholes and fractures of central Texas known as karst terrain. Numerous karst areas of the Edwards limestone are isolated from one another by river and stream canyons, drainage divides, outcroppings of noncavernous formations, and sometimes faults. Similar to an island, each isolated piece of karst has acquired an endemic biota.” *Id.* at 3-2.
152. In 1998, the Karst Waters Institute published a list of the ten most endangered karst communities of the world. The karst environment of the Edwards Aquifer is listed third. Christopher S. Belson, Karst Waters Institute's Second Annual Top Ten List of Endangered Karst Ecosystems, Vol. 7 (Fall/Spring 1999), <http://www.karstwaters.org/conduit/vol7no1/karst10.htm>.
153. On December 26, 2000, nine cave-dwelling karst invertebrates from Bexar County, Texas, were listed as endangered. 65 Fed. Reg. 81419. Those species are *Rhadine exilis* (no common name), *Rhadine infernalis* (no common name), *Batrisodes venyivi* (Helotes mold beetle), *Texella cokendolpheri* (Robber Baron Cave harvestman), *Cicurina baronia* (Robber Baron cave spider), *Cicurina madla* (Madla's cave spider), *Cicurina venii* (no common name), *Cicurina vespera* (vesper cave spider), and *Neoleptoneta microps* (Government Canyon cave spider).
154. On April 8, 2003, 22 units of critical habitat were designated for seven of the species. 68 Fed. Reg. 17156.
155. FWS has found that “[t]he continuing expansion of the human population in karst terrain constitutes the primary threat to the species through: (1) Destruction or



- deterioration of habitat by construction; (2) filling of caves and karst features and loss of permeable cover; (3) contamination from septic effluent, sewer leaks, runoff, pesticides, and other sources; (4) exotic species, especially nonnative fire ants; and (5) vandalism. Id. at 17157 (citing 65 Fed. Reg. 81419).
156. FWS identified the primary habitat requirements of these species as subterranean spaces in karst with stable temperatures, high humidities (near saturation), and suitable substrate, and a healthy surface community of native plants and animals for nutrients and to buffer the karst ecosystem from adverse effects. Id. at 17156-17157.
157. FWS has summarized the conservation requirements of endangered karst invertebrates as “a self-sustaining karst ecosystem; surface and subsurface drainage basins to maintain adequate levels of moisture; and a viable surface animal and plant community for nutrient input and protection of the subsurface from adverse impacts.” Id. at 17163-17164.
158. George Veni has defined 5 karst zones in the San Antonio area that reflect the likelihood of finding a karst feature that will provide habitat for endemic invertebrates. 65 Fed. Reg. at 81430. Zone 1 is defined as “areas known to contain one or more of the nine invertebrates,” and Zone 2 is defined as “areas having a high probability of suitable habitat for the invertebrates.” Id.
159. In the listing, FWS recommends that “[i]f you are in or adjacent to zone 1 karst, consultation is advisable to determine if you are adjacent to a known occupied cave or within geohydrologically sensitive zones of influence on that cave.” Id. at 81432.

160. The majority of the US 281 and Loop 1604 expansion projects are in karst zones 1 and 2.
161. Included in the several Critical Habitat Units (“CHU”) for endangered karst invertebrates in the immediate vicinity is CHU 12, located only .2 miles from the US 281 project, with 2 caves that contain *Rhadine exilis*.
162. Four CHUs are found in the area of effect for the analysis of indirect effects from the US 281 project, yet the EA finds no indirect effects. The EA states: “None of these CHUs are located within the 12,168 acres of potential developable land within the Area of Effect for the Build Scenario.” Pg. 193. This statement fails to explain how there will be no indirect effects.
163. For the EA, TxDOT’s consultants performed a karst terrain features survey within 500 ft of the US 281 project’s proposed right of way.
164. In its December 14, 2006, letter to TxDOT, Texas Parks and Wildlife Department writes: “TPWD recommends continued coordination with the FWS concerning additional species occurrence data, guidance, permitting, surveying protocols, and mitigation for these species and adjacent critical habitat.”
165. It is unclear whether the consultants surveyed or analyzed the presence of geohydrologically sensitive zones of influence on karst habitat, or considered edge effects.
166. Recent studies show that some karst invertebrate caves require many more surveys than has been traditionally thought in order to achieve a reliable degree of accuracy in determining presence/absence. Krejca, Jean K., and Weckerly, Butch. 2007. Detection Probabilities of Karst Invertebrates. Prepared for Texas Parks

- and Wildlife Department. Some karst invertebrates species need 20 or more surveys of a cave to get a 95% confidence interval of the species' absence. Overall in Krejca and Weckerly's study, the number of surveys ranged from 10 to 22.
167. Krejca and Weckerly found that "the recommended environmental and seasonal conditions for surveying these species are not related to their detectability." The researchers predict that the wildly varying occupancy counts have to do with mesocaverns as habitat—small spaces and openings that humans can't enter and that are sometimes used by invertebrates to move between caves—that should be a priority for conservation along with caves.
168. It is well-established in the scientific community that surface identification of karst features is of limited value because some features are not easily detectable, or may appear insignificant on the surface yet lead to significant subsurface voids and features. The technical report prepared for the EA notes this limitation: "The methodology used for this survey cannot preclude the presence of sub-grade karst features that lack surface expression."
169. The technical report submitted on the karst feature surveys notes several features where "excavation would have provided a more definitive result," as well as several features that were located in previous surveys but could no longer be found or investigated because of clearing or construction activities.
170. The EA incorrectly asserts that *Rhadine infernalis* and the Madla Cave Meshweaver is not known to occur in the Stone Oak karst faunal region concluding, "[t]herefore, the proposed project does not have potential to indirectly

effect these species, nor does the project have reasonable potential to result in any other types of adverse effects to these species.” This error was pointed out by TPWD in its December 14, 2006 letter found in the EA’s appendix. Even if corrected, this omission casts serious doubt on the reliability of the EA’s studies of karst invertebrate habitat and clearly demonstrates that the best science and commercial data available was not used.

171. The EA concludes that “there would be no effect” for karst invertebrates and proposes no additional study or any mitigation. Thus, for the purposes of ESA analysis, the conclusion is that the 281 project does not even reach the very low threshold of “may affect” that would require a “not likely to adversely affect” concurrence from FWS or commencement of formal consultations.
172. Because of omissions, mistakes, and limitations of the EA and technical report’s study, it cannot be said that the determination of no effect was reached on the basis of the best scientific and commercial data available.
173. The US 281 expansion easily meets the “may affect” standard in light of the project’s massive amount of construction for new lanes and new interchanges, and the cutting into, filling in, paving over, and altering runoff patterns in large areas of zone 1 and zone 2 habitat for endangered karst invertebrates, followed by decades of altered drainage and polluted highway runoff; destruction of feeding, breeding and sheltering habitat; disturbance to the flow of nutrients and water into and through karst habitat; edge effects; the introduction of fire ants and other exotic species; and the likely periodic spills of toxic pollutants from car and truck accidents. Moreover, these actions will result in unauthorized “take.”

## **CLAIMS FOR RELIEF**

### **Claim 1 (NEPA Arbitrary and Capricious FONSI)**

- 174. Each allegation set forth in the complaint is incorporated herein by reference.
- 175. Defendants' findings that the proposed tolled expansion of US 281 will not have any significant direct, indirect, or cumulative impacts are arbitrary, capricious, and otherwise not in accordance with law in violation of the Administrative Procedure Act, 5 USC. § 706(2) and the National Environmental Policy Act, 42 USC. §§ 4321 et seq

### **Claim 2 (NEPA Failure to Prepare an Adequate EA)**

- 176. Each allegation set forth in the complaint is incorporated herein by reference.
- 177. Defendants' decisions to fund and construct the proposed tolled expansion of US 281 with an environmental assessment that does not adequately describe, analyze and consider the full range of direct, indirect, and cumulative impacts to the human environment, and a full range of reasonable alternatives, are arbitrary and capricious and otherwise not in accordance with law in violation of the Administrative Procedure Act, 5 USC. § 706(2) and the National Environmental Policy Act, 42 USC. §§ 4321 et seq.

### **Claim 3 (NEPA Failure to Prepare an EIS)**

- 178. Each allegation set forth in the complaint is incorporated herein by reference.
- 179. Defendants' decisions to fund and construct the proposed tolled expansion of US 281 without first preparing an environmental impact statement to adequately describe, analyze and consider the full range of direct, indirect, and cumulative

impacts to the human environment, and a full range of reasonable alternatives, are arbitrary and capricious and otherwise not in accordance with law in violation of the Administrative Procedure Act, 5 USC. § 706(2) and the National Environmental Policy Act, 42 USC. §§ 4321 et seq.

180. The Defendants' decisions to not prepare an EIS are also arbitrary and capricious in light of the substantial presence and high degree of the factors that the CEQ Regulations provide to determine significance. See 40 C.F.R. § 1508.27.

**Claim 4 (Arbitrary and Capricious Scope of the EA and FONSI)**

181. Each allegation set forth in the complaint is incorporated herein by reference.
182. The US 281 and Loop 1604 projects are "cumulative," "connected," and/or "similar" actions under NEPA regulations, and thus Defendants' analyzing of only the US 281 project in the EA and FONSI is arbitrary and capricious and otherwise not in accordance with law in violation of the Administrative Procedure Act, 5 USC. § 706(2) and the National Environmental Policy Act, 42 USC. §§ 4321 et seq.

**Claim 5 (ESA Arbitrary and Capricious Determination of No Effect)**

183. Each allegation set forth in the complaint is incorporated herein by reference.
184. Defendants' determination that the proposed tolled expansion of US 281 would not affect the endangered Golden-cheeked warbler and Bexar County karst invertebrates is arbitrary and capricious and otherwise not in accordance with law in violation of the Administrative Procedure Act, 5 USC. § 706(2) and Endangered Species Act, 5 USC. § 1531 et seq.

**Claim 6 (ESA Failure to Use Best Available Scientific Data)**

185. Each allegation set forth in the complaint is incorporated herein by reference.
186. Defendants' determination that the proposed expansion of US 281 would not affect the endangered Golden-cheeked warbler and Bexar County karst invertebrates is not supported by the best scientific and commercial data available and is arbitrary and capricious and otherwise not in accordance with law in violation of the Administrative Procedure Act, 5 USC. § 706(2) and Endangered Species Act, 5 USC. § 1531 et seq.

**Claim 7 (ESA Unlawful "Take" of Endangered Species)**

187. Each allegation set forth in the complaint is incorporated herein by reference.
188. Defendants' construction and operation of the proposed US 281 project will result in prohibited "take" of endangered Bexar County karst invertebrates in violation of the Endangered Species Act, 5 USC. § 1531 et seq.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs prays for relief as follows:

1. For a declaratory judgment that Defendants' decisions that the proposed expansion of US 281 will not have any significant environmental impact, and would not affect listed threatened or endangered species, are arbitrary and capricious and adopted in violation of the procedural requirements of the Administrative Procedure Act, the National Environmental Policy Act, and the Endangered Species Act;
2. For a declaratory judgment that the environmental analysis prepared by the Defendants does not adequately describe, analyze and consider the full range of direct, indirect, and cumulative impacts to the human environment and a reasonable range of alternatives, does not use the best science available in reaching a determination of no effect to listed threatened or endangered species, and will result in unauthorized "take" in

violation of the Administrative Procedure Act, the National Environmental Policy Act, and the Endangered Species Act;

3. For an order setting aside the Defendants' findings of no significant impact and the Defendant's Record of Decision to fund the proposed expansion of US 281 pending compliance with the National Environmental Policy Act and the Endangered Species Act;
4. For an order enjoining Defendants from carrying out the proposed project pending full compliance with the National Environmental Policy Act and the Endangered Species Act;
5. For the Court to retain continuing jurisdiction to review defendants' compliance with all judgments and orders entered herein;
6. For an award of Plaintiffs' costs of litigation, including reasonable attorney's fees; and
7. For such other and further relief as the Court may deem just and proper to effectuate a complete resolution of the legal disputes between Plaintiffs and Defendants.

DATED: 2/26/2008

Respectfully Submitted,

/s/ William G. Bunch

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