

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

CENTER FOR BIOLOGICAL DIVERSITY, §
§
Plaintiff, §
§
VS. § CIVIL ACTION NO. SA-01-CA-1139-FB
§
UNITED STATES FISH AND WILDLIFE §
SERVICE, §
§
Defendant and §
§
LA CANTERA DEVELOPMENT CO., §
§
Intervenor-Defendant. §

**ORDER CONCERNING PENDING MOTIONS FOR
SUMMARY JUDGMENT**

First, they destroyed the Carolina parakeet,
and I did not speak out because I was not a Carolina parakeet.

Next, the Florida red wolf was made extinct,
and I said nothing because I am *homo sapien*, not *Canis rufus floridanus*.

Then they took the habitat of the silver trout, the Santa Barbara song sparrow,
and the Wisconsin cougar,
but I inhabited elsewhere and had no concern and did not get involved.

Then my environment began to deteriorate and decay -
and there were no other species to whom I could look for protection.¹

* * * * *

This dispute presents technical environmental legal issues. In a larger sense, the case compels
us to think about our responsibility as stewards of the earth which bore and sustains us. For those

¹ I adapted this from Pastor Martin Niemöller's statement about World War II Germany. 139 CONG. REC. E2056-01 (Aug. 6, 1993) (statement of Rep. Swett). All species mentioned above are extinct. THE LAST EXTINCTION (Les Kaufman & Kenneth Mallory eds., MIT Press 2d ed. 1993).

of Western religious beliefs, the author of the creation story teaches that we "have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth."² But "dominion" does not mean "destruction," and our elected representatives have passed the Endangered Species Act standing for that proposition. At about the time our political ancestors were writing the Magna Carta, St. Francis of Assisi implicitly foresaw the need for protective legislation when he wrote:

By our own fault we have lost the beautiful relationship which we once had with all ... creation....Give us the grace to see all animals as gifts from [God] and to treat them with respect for they are [God's] creation.³

In a perfect world, we would live in peace with each other and in harmony with the land. It is not, and we do not. Instead of a community of neighborhoods, we are becoming a segregated collection of consuming Haves served by minimum wage Have-nots whose festering envy will someday manifest itself. While ancient Rome had its bread and circuses, we have our air conditioned malls and arenas to satisfy the appetites of American materialism and entertainment. The reaping and reckoning in public health and quality of life which will come to our children and grandchildren will echo from what we incrementally sow into their environment and whether we come to an epiphany of the interdependence and interrelatedness played out in the mystery of the dance called life.

Apparently invoking the principle that matter is neither created nor destroyed but merely changes forms, defendant-intervenor La Cantera Development Co. wishes to profit from suburban consumerism by transforming Nature's beauty into upscale shopping venues accompanied no doubt

² *Genesis* 1:28 (King James).

³ *Circa* 1200 A.D.. Prayer for Animals available at <http://www.catholic-forum.com/saints/pray0343.htm> (last visited April 17, 2002).

by lovely, non-porous asphalt parking lots over a part of our water supply. Despite my personal lamentation about failing to nurture nature, my oath and the judicial process require decisions to be made within the parameters of the law, notwithstanding my own view that we have quite enough of the sterility of steel and concrete stores, several now standing vacant. See Perkins v. Alamo Heights Indep. School Dist., No. SA-02-CA-313-FB (W.D. Tex. Apr. 9, 2002) (order concerning jurisdiction and preliminary injunction) (to be published) ("[w]hile I might have made a distinction and different decision...my personal opinion is secondary to the law"); Dutmer v. City of San Antonio, 937 F. Supp. 587, 589 (W.D. Tex. 1996) (notwithstanding personal opposition, Court does not sit in loco parentis to decide whether terms limits make better or worse government).

A preview of the legal analysis is that plaintiff Center for Biological Diversity would prefer pristine wilderness. Defendant-intervenor La Cantera would rather develop the land with no responsibility for its actions on living things. The United States Fish and Wildlife Service is the regulatory referee charged with keeping the ball somewhere around the 50-yard line as between encroaching human activity and endangered species. The law requires the judicial branch of government to give deference to administrative agency decisions so long as they are supported by substantial evidence and are not arbitrary and capricious. See Newell Recycling Co., Inc. v. United States Env'tl. Prot. Agency, 231 F.3d 204, 206 (5th Cir. 2000) (decision by Environmental Protection Agency's Appeal Board must be affirmed by court unless "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."); Meadows v. Securities & Exch. Comm'n, 119 F.3d 1219, 1224 (5th Cir. 1997) (court to uphold decision by agency unless "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law"; factual findings by the Commission to be upheld "if supported by substantial evidence"); Louisiana v. Mathews, 427 F. Supp. 174, 175

(E.D. La. 1977) (judicial review of action by Food & Drug Administration banning sale and distribution of small turtles limited to whether defendants acted "arbitrarily, capriciously, in abuse of their discretion or otherwise unlawfully"); see also Texas Alcoholic Beverage Comm'n v. Top of the Strip, Inc., 993 S.W.2d 242, 249 (Tex. App.--San Antonio, 1999, pet. denied) (court's review of TABC order based on substantial evidence rule; court may reverse or remand case if substantial rights of appellant have been prejudiced because administrative findings, conclusions, inferences, or decisions are "arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion"; reviewing court evaluates reasonableness not correctness of the order). For the reasons stated below, this Court finds United States Fish and Wildlife Service negotiated and regulated vigorously and at arms length to discharge its duty under the Endangered Species Act with the result that La Cantera Development Co. purchased, and has set aside and will maintain 181 on-site and off-site acres of protected land for the subject species and their cave habitats. Plaintiff Center for Biological Diversity's Motion for Summary Judgment (docket #27) is DENIED. The motions for summary judgment by defendants La Cantera Development Co. (docket #29) and United States Fish and Wildlife Service (docket #30) are GRANTED.

Procedural Parameters

On October 22, 2001, the United States Fish and Wildlife Service (hereinafter referred to as FWS or Service) issued an Incidental Take Permit to La Cantera Development Company related to the development of approximately 750 acres of land in northern Bexar County, Texas. The permit was issued pursuant to section 10 of the Endangered Species Act, 16 U.S.C. § 1539(A), and authorized the permittee, La Cantera Development Company, Ltd. (hereinafter referred to as La Cantera or defendant-intervenor) to "take" three species of karst invertebrates, *Rhadine exilis*, a troglobitic ground beetle, *Rhadine internalis*, also a troglobitic ground beetle, and *Circurina madla*,

a meshweaver spider,⁴ incidental to the construction, operation and management of the development

⁴ On December 26, 2000, by final rule, the Fish and Wildlife Service added these three species along with six other species to the list of endangered species. Final Rule to List Nine Bexar County, Texas Invertebrate Species as Endangered, 65 Fed. Reg. 81419 (Dec. 26, 2000); see Endangered and Threatened Wildlife and Plants, 50 C.F.R. 17.11 (h) (2002) (list of all endangered and threatened wildlife current through April 1, 2002, and includes the three species at issue herein).

Contained in the summary portion of the final rule by the Fish and Wildlife Service was the following information about the two beetles and spider at issue here:

Rhadine exilis (no common name) and Rhadine infernalis (no common name) are small, essentially eyeless ground beetles....Cicurina madla (Madla's cave spider)...[is a] small, eyeless or essentially eyeless spider[].

These species (referred to in this final rule as the nine invertebrates) are known from karst topography (limestone formations containing caves, sinks, fractures and fissures) in north and northwest Bexar County.

65 Fed. Reg. 81419. Contained in the supplementary information was the following background information:

Rhadine exilis and Rhadine infernalis were first collected in 1959 and described by Barr and Lawrence (1960) as Agonum exile and Agonum infernale, respectively. Barr (1974) assigned the species to the genus Rhadine....Cicurina madla...[was] first collected in ...1963.

These nine invertebrates are obligate (capable of surviving in only one environment) karst or cave-dwelling species (trogllobites) of local distribution in karst terrain in Bexar County, Texas. "Karst" is a type of terrain in which the rock is dissolved by water so that much of the drainage occurs into the subsurface rather than as runoff. The subsurface drainage leads to passages or other openings within the underground rock formations. Some of the features that develop in karst areas include cave openings, holes in rocks, cracks, fissures, and sinkholes.

Habitat required by the nine karst invertebrate species consists of underground, honeycomb limestone that maintains high humidity and stable temperatures. The surface environment of karst areas is also an integral part of the habitat needed by the animals inhabiting the underground areas. Openings to the surface allow energy and nutrients, in the form of leaf litter, surface insects, other animals, and animal droppings to enter the underground ecosystem. Mammal feces provide a medium for the growth of fungi and, subsequently, localized population blooms of several species of tiny, hopping insects. These insects reproduce rapidly on rich food sources and may become prey for some predatory cave invertebrates (Service 1994). While the life habits of the nine invertebrates are not well known, the species probably prey on the eggs, larvae, or adults of other cave invertebrates

Rhadine exilis is known from 35 caves in north and northwest Bexar County. Twenty-one are located on Department of Defense (DOD) land in the Stone Oak karst region. The remainder are distributed among the Helotes, UTSA, and Stone Oak karst regions, while one location lies in the Government Canyon region. One of the non-DOD sites is located in a county road right-of-way, one is located in a state-owned natural area, and the remainder are located on private property. Ongoing efforts by the DOD to locate and inventory karst features on Camp Bullis and to document the karst fauna communities in caves on Camp Bullis resulted in the discovery of 18 of the 35 caves mentioned above (Veni 1994b; James Reddell, pers. comm. 1997)

Rhadine infernalis is known from 25 caves. This species occurs in five of the six karst regions—Helotes, UTSA, Stone Oak, Culebra anticline, and Government Canyon. Scientists have delineated three subspecies (Rhadine infernalis ewersi, Rhadine infernalis infernalis, Rhadine infernalis ssp.), and described and named two of these in scientific literature (Barr 1960, Barr and Lawrence 1960). In a recent report, scientists characterized the third subspecies as distinct, but not named (Reddell 1998).

of the property.⁵ "Threats to the[ese] species and their habitat include destruction and/or deterioration of habitat by construction; filling of caves and karst features and loss of permeable cover; contamination from septic effluent, sewer leaks, run-off, pesticides, and other sources; predation by and competition with nonnative fire ants; and vandalism." 65 Fed. Reg. 81419. Like the warning to humans by a dying canary in the coal mine, some of these dangers adversely affect *homo sapiens*.

FWS contends that before making its decision to issue the incidental take permit, it completed a comprehensive analysis and documentation process pursuant to section 10 of the Endangered Species Act and the National Environmental Policy Act of 1969. The analysis and documentation process featured a Habitat Conservation Plan, Biological Opinion, an environmental assessment, a finding of no significant impact, and extensive public participation.

Only three caves, all on DOD land, contain the subspecies *Rhadine infernalis ewersi*. Sixteen caves contain the subspecies *Rhadine infernalis infernalis* and lie in the Government Canyon, Helotes, UTSA, and Stone Oak regions. Six caves in the Culebra Anticline region contain the unnamed subspecies.

Cicurina madla, Madla's cave spider, is known from six caves. One cave is within the Government Canyon karst region in Government Canyon State Natural Area, one is on DOD land, three are located in the Helotes karst region on private property, and one is located on private property in the UTSA karst.

It is possible that these species occur in some of the caves that could not be visited and that new locations of the nine invertebrates will be discovered in the future. Although these new discoveries may increase the number of locations where the species are found, they are expected to fall within the same general range and are expected to face the same threats as the known occurrences of these species. The listing of these species is not based on a demonstrable decline in the number of individuals or the number of known locations of each species, but rather on reliable evidence that each species is subject to threats to its continued existence throughout all of a significant portion of its range.

Id. at 81420-21.

⁵ The specific language of section E of Permit TE044512-0 provides as follows:

The Permittee and Participants under the Implementing Agreement are authorized to "Take" (kill, harm, harass) the Madla Cave meshweaver (*Cicurina madla*), *Rhadine exilis* and *Rhadine infernalis* (no common names), to the extent described and specified in the EA/HCP, incidental to activities during the construction, operation, and management of new developments as described in the Permittee's application and supporting documents, and as conditioned herein.

On December 12, 2001, plaintiff Center for Biological Diversity (hereinafter referred to as Center), filed suit in this Court seeking declaratory and injunctive relief. Plaintiff alleges the FWS violated both the Endangered Species Act and the National Environmental Policy Act by improperly issuing a Habitat Conservation Plan, incidental take permit, and a finding of no significant impact and allowing the development of the La Cantera property in northern Bexar County, Texas. Plaintiff argues the development will cause an improper take of three endangered invertebrate species and cause undue environmental harm to the property which contains significant environmental values and which is in the Edwards Aquifer Recharge Zone.

On January 16, 2002, Center filed its Motion for Temporary Restraining Order and Preliminary Injunction asking the Court to "enjoin the defendant United States Fish and Wildlife Service ... to suspend its 'incidental take [of endangered species] permit' ... issued to La Cantera Development Company for the development of 'La Cantera' property in northern San Antonio, Texas." La Cantera filed its motion for leave to appear as an amicus curiae in the case and filed its brief in opposition to Center's motion for TRO and preliminary injunction. The Court held a hearing on the temporary restraining order and preliminary injunction on January 17, 2002, and orally denied plaintiff's request. Thereafter, on February 7, the Court granted La Cantera's unopposed motion to intervene as a party-defendant and entered a Scheduling Order to control the disposition of the case. Because the parties advised the Court they agreed the case should be decided on cross motions for summary judgment, the Scheduling Order set forth the deadlines for submitting the motions, responses, and replies. All briefing has been submitted, and this case is now ripe for disposition.

Parameters of the Dispute

Plaintiff believes a quotation taken from an e-mail sent by Christina Longacre of the FWS to Glen Sam Mitts, Vice President, Senior Finance Officer with USAA Real Estate Company, shows

why this case is "particularly important." Ms. Longacre wrote, "This will be the basis for those to come in Bexar" County.⁶ Plaintiff believes that because the standards and procedures used for the Habitat Conservation Plan and Environmental Assessment in this case were the first to be used for the cave invertebrates in Bexar County, it is important for the FWS to know what is expected for compliance with the Endangered Species Act and the National Environmental Policy Act. Therefore, what is at stake here is not simply the La Cantera tract of land, but the remaining undeveloped lands of central Texas as well. Plaintiff maintains that not only do legal flaws exist which are fatal to the integrity of the entire process and the result, but these legal flaws are further exacerbated by irregularities such as undue influence and pressure exerted by La Cantera during the process.

In its motion for summary judgment, plaintiff claims: (1) the FWS failed to ensure that the "applicant will, to the maximum extent practicable, minimize and mitigate the impacts of [] taking"; (2) the FWS arbitrarily found the development would "not appreciably reduce the likelihood of the survival and recovery of the species in the wild," and (3) the FWS incorrectly found there is "no significant impact" and thereby avoided the preparation of an environmental impact statement to fully assess the development. In response, FWS contends plaintiff has failed to establish its actions in issuing the incidental take permit were arbitrary and capricious because (1) the La Cantera project and the Habitat Conservation Plan satisfied the requirements of the Endangered Species Act for issuing the incidental take permit; (2) the failure to adopt the comments by George Veni does not make the decision arbitrary and capricious, and (3) FWS complied with its obligations under the National Environment Policy Act and properly arrived at a finding of no significant impact. La

⁶ For context purposes, the e-mail in its entirety reads:

Unfortunately this process doesn't make best friends out of anyone involved, but it is what it is. I think everyone will be glad when it's all said and done. This will be the HCP that is the basis for those to come in Bexar and that probably made it even tougher since we were starting from scratch.

Cantera also believes (1) its permit complies with the Endangered Species Act; (2) FWS adequately analyzed the minimization and mitigation requirements, and (3) an environment impact statement was unnecessary because the FWS correctly found the La Cantera project did not "significantly" affect the qualify of the human environment.⁷ The Lone Star Chapter and the Alamo Regional Group of the Sierra Club filed an amicus brief fully supporting the Center's claims and position in this case.

Legal Parameters - Motions for Summary Judgment

A motion for summary judgment should be granted when the "pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." FED. R. CIV. P. 56(c). A dispute concerning a material fact is considered "genuine" if the evidence "is such that a reasonable jury could return a verdict for the nonmoving party." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). It is not the Court's function to "weigh the evidence and determine the truth of the matter but to determine whether there is a genuine issue for trial." Id. at 249. The Court must determine if there are "any genuine factual issues that properly can be resolved only by a finder of fact because they may reasonably be resolved in favor of either party." Id. Of course, in ruling on a motion for summary judgment, all inferences drawn from the factual record are viewed in the light most favorable to the nonmoving party. Matsushita Elec. Indus. Co. v. Zenith Radio, 475 U.S. 574, 587 (1986).

If the party moving for summary judgment carries its burden of producing evidence which tends to show there is "no genuine issue of material fact, the nonmovant must then direct the court's

⁷ La Cantera also raised in its motion for summary judgment, the issues of mootness and the impracticality of unscrambling the eggs at this late date. The Court denied La Cantera's motion as to these claims by Order Concerning Motions for Summary Judgment (docket #36) filed April 16, 2002, now known affectionately in the Court's Chambers as the Humpty Dumpty order.

attention to evidence in the record sufficient to establish the existence of a genuine issue of material fact for trial." Eason v. Thaler, 73 F.3d 1322, 1325 (5th Cir. 1996). The nonmoving party may not rely upon mere conclusory allegations to defeat a motion because allegations of that type are not competent summary judgment evidence and are insufficient to defeat a proper motion. Id. In fact, if the "nonmoving party rests merely upon conclusory allegations, improbable inferences, and unsupported speculation," a motion for summary judgment may be granted even in cases "where elusive concepts such as motive or intent are at issue." Forsyth v. Barr, 19 F.3d 1527, 1533 (5th Cir.), cert. denied, 513 U.S. 871 (1994).

The party opposing the motion also may not rest on the allegations contained in the pleadings but "must set forth and support by summary judgment evidence specific facts showing the existence of a genuine issue for trial." Ragas v. Tennessee Gas Pipeline Co., 136 F.3d 455, 458 (5th Cir. 1998). In meeting this requirement, the party must "identify specific evidence in the record" and "articulate the precise manner in which that evidence supports his or her claim." Id. Rule 56 of the Federal Rules of Civil Procedure does not impose upon this Court the "duty to sift through the record in search of evidence to support a party's opposition to summary judgment." Id. (quoting Skotak v. Tenneco Resins, Inc., 953 F.2d 909, 915-16 & n.7 (5th Cir.), cert. denied, 506 U.S. 832 (1992)). A summary judgment will only be precluded by disputed facts which are material, i.e. "might affect the outcome of the suit under the governing law." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). Factual disputes which are irrelevant or unnecessary to the issue will not preclude summary judgment. Id.

Because cross motions for summary judgment have been filed in this case, each party's motion must be considered separately, and each movant must present evidence to support its respective motion. Ghoman v. New Hampshire Ins. Co., 159 F. Supp. 2d 928, 931 (N.D. Tex. 2001); Dutmer

v. City of San Antonio, 937 F. Supp. 587, 589-90 (W.D. Tex. 1996). Summary judgment is often appropriate in cases involving a review of an administrative record. National Wildlife Fed'n v. Babbitt, 128 F. Supp. 2d 1274, 1289 (E.D. Cal. 2000) (summary judgment frequently appropriate in cases involving judicial review of voluminous and complete administrative record); Loggerhead Turtle v. County Council, 120 F. Supp. 2d 1005, 1011-12 (M.D. Fla. 2000) (because court is to determine issues based on agency's administrative record, "trial is generally unnecessary and summary judgment is often appropriate").

The Parameters of Agency Review

In determining whether the action by the FWS in this case should be set aside, the parties agree the standard established by the Administrative Procedure Act, 5 U.S.C. § 706, applies. See North Carolina Alliance for Transp. Reform, Inc. v. United States Dep't of Transp., 151 F. Supp. 2d 661, 678 (M.D.N.C. 2001) (National Environmental Policy Act contains no independent private right of action; "Administrative Procedure Act...expressly provides a right to judicial review of all final agency actions, including NEPA decisions); Bennett v. Spear, 5 F. Supp. 2d 882, 885 (D. Ore. 1998) ("[j]udicial review of agency action under the Endangered Species Act is controlled by section 706 of the Administrative Procedure Act, 5 U.S.C. § 706"). The application of this standard of review has been explained as follows:

Under this "very narrow" standard of review, we may not "weigh the evidence in the record pro and con." Instead, "our role is to review the agency action to determine whether the decision 'was based on a consideration of the relevant factors and whether there was a clear error of judgment.'" "Thus, if the agency considers the factors and articulates a rational relationship between the facts found and the choice made, its decision is not arbitrary or capricious." "Indeed, the agency's decision need not be ideal, so long as it is not arbitrary or capricious, and so long as the agency gave at least minimal consideration to relevant facts contained in the record."

Harris v. United States, 19 F.3d 1090, 1096 (5th Cir. 1994) (citations omitted.); see Lodge Tower

Condo. Assoc. v. Lodge Props., Inc., 85 F.3d 476, 477 (10th Cir. 1996) (review under § 706 narrow; agency need only "demonstrate that it considered relevant factors and alternatives after a full ventilation of issues and that the choice it made was reasonable based on that consideration") (quoting Mount Evans Co. v. Madigan, 14 F.3d 1444, 1453 (10th Cir. 1994)). The Court, in deciding whether to uphold an agency's decision, may not consider evidence outside of the administrative record. Harris, 19 F.3d at 1096 n.7. It is only where the action is not supportable on any rational basis that the administrative decision is considered to be arbitrary and capricious. Kaplan v. Johnson, 409 F. Supp. 190, 196 (N.D. Ill. 1976). The action will not be considered arbitrary and capricious even if the reviewing court could have reached a contrary decision based on the same evidence. Id.

In addition, when an agency is acting within its "own sphere of expertise," this Court's review "must be very deferential." Center for Marine Conserv. v. Brown, 917 F. Supp. 1128, 1143 (S.D. Tex. 1996); see Loggerhead Turtle v. County Council, 120 F. Supp. 2d 1005, 1013 (M.D. Fla. 2002) (in case involving Endangered Species Act, court noted that because an agency's "special scientific expertise [was] involved, the Court must be 'most deferential.'"). "An agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, the court might find contrary views more persuasive." Center for Marine Conserv., 917 F. Supp. at 1143 (quoting Marsh v. Oregon Natural Res. Council, 490 U.S. 360, 378 (1989)); see Bennett v. Spear, 5 F. Supp. 2d 882, 885 (D. Ore. 1998) (when specialists express contrary views, agency given discretion to rely on "the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive") (quoting Marsh v. Oregon Natural Res. Council, 490 U.S. 360, 378 (1989)). The choices by the Secretary, are entitled to a "presumption of regularity". Loggerhead, 120 F. Supp. 2d at 1013. An agency violates the Administrative Procedure Act where it:

relies on factors Congress did not intend for it to consider, fails to examine an important aspect of the problem, offers an explanation for its decision that contradicts the evidence before the agency, or is so implausible that it cannot be attributed to a product of agency expertise.

North Carolina Alliance for Transp. Reform, Inc. v. United States Dep't of Transp., 151 F. Supp. 2d 661, 679 (M.D.N.C. 2001).

Parameter of the Arguments

1. Did FWS Fail to Ensure La Cantera Will to the Maximum Extent Possible, Minimize and Mitigate the Impacts of the Taking of *Rhadine exilis*, *Rhadine infernalis*, and *Cicurina madla*?

Plaintiff argues the Endangered Species Act (hereinafter ESA) is explicit in requiring that an incidental take permit not issue unless the FWS ensures the applicant will to the maximum extent practicable, minimize and mitigate the impacts of the taking, and the record in this case shows that requirement was not met. Plaintiff contends the FWS failed to adequately analyze and provide an explanation for the rejection of the "Reduced Development" Alternative⁸ which would have, for

⁸ Reduced Development Alternative set forth at 4.2 Alternative 2 in the Environmental Assessment/Habitat Conservation Plan for Issuance of an Endangered Species Act Section 10(a)(1)(B) Permit for the Incidental Take of Two Troglotic Ground Beetles (*Rhadine exilis* and *Rhadine infernalis*) and Madla Cave Meshweaver (*Cicurina madla*) during the Construction and Operation of Commercial Development on the Approximately 1,000-Acre La Cantera Property, San Antonio, Bexar County, Texas dated October 11, 2001, provides:

Alternative 2 includes primarily commercial development similar to that described for Alternative 1 except that proposed development would be limited to approximately 100 acres less than in Alternative 1. Impacts beyond the existing condition to La Cantera Caves #1, #2, and #3 would be avoided by incorporating the three features into one 100-acre karst preserve..., and no development would occur in that preserve. Alternative 2 does not include the issuance of a permit under Section 10(a)(1)(B) of the Endangered Species Act of 1973 to authorize incidental take of any of the listed species.

This development option was designed and analyzed by the Service with the assumption that non-preserve lands for Alternative 2 will be fully developed and no endangered species habitat value on those lands would remain. This development plan includes on-site measures to avoid impacts to federally endangered karst invertebrates known to occur on the Property.

Preservation of Karst Invertebrate Habitat. For Alternative 2, the Applicant would assure preservation and provide operation, maintenance, and monitoring in perpetuity of the 100-acre on-site preserve, including La Cantera Caves # 1, #2 and #3. The karst preserve would encompass all caves on the Property known to contain *Rhadine exilis* and *Cicurina madla* and would include a minimum 500-

purposes of argument here, completely avoided a "take" of the ground beetles and spider. Instead, the FWS offered a single, conclusory statement concerning the reduced economic value which would result from implementation of the Reduced Development alternative (i.e. loss of 100 acres for development) but failed to provide any analysis in support of its conclusion, for example, how much profit La Cantera claims it might forego under this alternative and/or whether a different configuration of the development, but which avoids the 100 acres, might still provide an adequate return.⁹ Plaintiff believes La Cantera expressed its desire to develop the entire property, and the FWS simply acquiesced.

foot cricket foraging area and buffer for edge effects which such buffers may be provided given the existing roads. No existing roadways would be removed or realigned as that effort would be cost prohibitive.

The 100-acre karst preserve would encompass the entire surface and subsurface drainage area for La Cantera Caves #2 and 3, and the entire surface and majority of the subsurface drainage area for La Cantera Cave #1. Portions of the subsurface drainage for cave #1 extend under Loop 1604. The karst preserve was designed and configured with the same consideration used for the off-site preserves in Alternative 1.

Alternative 2 would not provide off-site mitigation for the endangered karst invertebrates; thus, the 179 off-site acres would not be established as karst invertebrate habitat preserves as under the Preferred Alternative and the off-site caves proposed to be protected under Alternative 1 would not receive active long-term management for the listed species. Alternative 2 would also provide greatly reduced economic value for the current Landowners by virtue of the loss of approximately 100 acres of otherwise developable land; therefore, the Applicant chosen not to pursue this option.

Measures to Avoid Impacts to Karst Invertebrates. Measures include, but are not limited to, diversion of development runoff to areas outside of the karst preserve, restrictions on the use of pesticides and fertilizers, fire ant control, and prohibitions in the area outside the preserves of types of development such as chemical factories, gas stations, and dry cleaners that could pose a risk of contamination of the caves.

⁹ In support of its argument, plaintiff references one sentence contained at AR 1, A9 at 101. The entire paragraph in which this sentence is contained reads as follows:

Alternative 2 would not provide off-site mitigation for the endangered karst invertebrates; thus, the 179 off-site acres would not be established as karst invertebrate habitat preserves as under the Preferred Alternative and the off-site caves proposed to be protected under Alternative 1 would not receive active long-term management for the listed species. **Alternative 2 would also provide greatly reduced economic value for the current landowners by virtue of the loss of approximately 100 acres of otherwise developable land; therefore, the Applicant chose not to pursue this option.**

(Emphasis added).

Plaintiff also contends the "Proposed Alternative"¹⁰ adopted does not fulfill

¹⁰ Although Center refers to the "Proposed Alternative," it appears this alternative was listed at 4.1 of the October 11, 2001 Environmental Assessment/Habitat Conservation Plan as Alternative 1 - Preferred Alternative. This alternative provided:

The Preferred Alternative includes two 1-acre on-site setbacks and five off-site preserves totaling 179 acres for mitigation of impacts to *Rhadine exilis* and *Cicurina madla* (Figure 5). The Applicant is proposing to seal La Cantera Cave #3 and place 1-acre setbacks around la Cantera caves #1 and #2. We do not believe 1 acre is sufficient for long-term viability for cave species; therefore, additional cave preserves are necessary to mitigate the impacts to La Cantera caves #1 and #2. The on-site measures to minimize impacts to the two listed species provides for 1-acre setbacks and a funded maintenance and monitoring plan for La Cantera caves #1 and #2. The purpose of the on-site monitoring will be specifically designed to evaluate the long-term impacts of small buffers on cave ecosystems. Off-site mitigation, in the form of acquisition of permanent karst preserves, not only provides for protection of *R. exilis* and *C. madla*, but also provides recovery opportunities for other listed invertebrates, including *Rhadine infernalis* and *Batrissodes venyivi* as well as two new undescribed troglobitic spider species a *Neoleptoneta* n.s. and a *Texella* n.s. The proposed mitigation caves also include the type localities of four of the nine Bexar County listed invertebrates...Appendix I of the HCP provides a detailed description of each preserve (and caves within) that will be established to mitigate for impacts associated with the Preferred Alternative.

The Preferred Alternative includes the issuance of a permit under section 10(a)(1)(B) of the Act to authorize incidental take of *Rhadine exilis*, *R. infernalis*, and *Cicurina madla* during new construction and operation of mostly commercial development with potential for smaller amounts of residential, light industrial, and recreational features, with attendant roads and utilities on the Property.

Issuance of the permit will authorize construction and operation of commercial and residential development with attendant roads and utilities throughout the Property except as provided for in karst preserves and as described in the HCP.

Development plans for the Property have not been finalized, although development is expected to primarily be commercial with potential for smaller amounts of residential, light industrial, and recreational development. The proposed development will incorporate some open spaces and landscaped areas, but because final development configurations are unknown at this time, for the purposes of this EA/HCP it is assumed that all portions of the Property exclusive only of the La Cantera Caves #1 and #2 1-acre setbacks, will be disturbed.

Water for the proposed development will be provided primarily by SAWS under regulation by the Edwards Aquifer Authority. Estimates provided by Pape-Dawson Engineers, Inc. indicate that upon completion and occupation of all proposed development, annual water usage would be equivalent to approximately 2,100 equivalent dwelling units or 756,000 gallons per day. Wastewater service would be provided by the City of San Antonio.

La Cantera Cave #3 lies in an area expected to contain a detention pond; this cave is expected to be partially filled with concrete and compacted clay prior to being covered by the pond. The filling of the upper portion of this cave will be done according to standards set forth by TNRCC under the Edwards Aquifer Rules. This development disturbance will substantially modify the surface area around and upper 10-15 feet of the cave.

The Preferred Alternative includes measures to minimize and mitigate for potential impacts to the federally endangered karst invertebrates known to occur on the Property. The major elements of the HCP for the Preferred Alternative include:

Outreach and Research Program: The Permittee will provide money to The Nature Conservancy of Texas towards outreach efforts with the goal of raising awareness, understanding, and appreciation for Bexar County endangered karst invertebrates. Outreach materials will be produced in consultation with and approved by the Service. A Texas Nature Conservancy professional will be involved that is familiar with different types of media and understands what information is effective for different groups, taking into account such things as age and type of landowner (for example, corporation or individual). The end goal is to increase understanding and appreciation for these species.

Secondly, the Permittee will provide to the Service, three times a year for three years, printouts of northern Bexar County multi-layered maps to include the following layers: karst fauna regions, karst zones, updated plats, and land use types.

Thirdly, the Permittee will fund genetics studies by Dr. Marshall Hedin, San Diego State University. These studies will be designed to provide techniques for definitive species level identification of immature specimens of eyeless *Cicurina* spiders in northern Bexar County.

On-Site Preserves. One-acre on-site setbacks for La Cantera Caves #1 and #2 will be provided. Minimization measures including prohibiting uses that have a significant potential to contaminate sub-surface karst and/or groundwater on the eastern portion of the Property, such as gas stations, dry cleaners (on-site cleaning process), metal or chemical processing or manufacturing facilities, hazardous waste facilities, septic tanks, or any other uses prohibited by the TNRCC or the City of San Antonio.

The proposed karst preserves will be managed for the benefit of the listed karst invertebrates. Management and monitoring responsibilities are also discussed in Section 6.0 of this EA/HCP. Public access to the preserves will be prohibited unless specifically authorized by Management (a Service authorized third-party entity [defined in Section 6.3 of this EA/HCP]) and the Service.

Off-site Preserves. For the Preferred Alternative, the Permittee will assure that five karst preserves totaling approximately 179 acres will be protected in perpetuity. These off-site preserves include: approximately 70 acres encompassing Hills and Dales Pit; approximately 75 acres on the Canyon Ranch Property that encompass Scenic Overlook, Canyon Ranch Pit, and Fat Man's Nightmare caves; an approximately 5-acre area encompassing Madla Cave; and approximately 4-acre area encompassing John Wagner Ranch Cave #3 (also called Menchaca Cave by the current owners); and approximately 25 acres encompassing Helotes Hilltop and Helotes Blowhole caves. A summary of endangered invertebrate species known from each of the proposed on- and off-site preserve caves is provided in Table 1. The proposed karst preserves will be managed for the benefit of the listed karst invertebrates. Management and monitoring responsibilities are also discussed in Section 6.0 of this EA/HCP. Public access to the preserves will be prohibited unless specifically authorized by Management and the Service.

The proposed approximately 70-acre Hills and Dales karst preserve lies in a low-density developing area, with residential development present to the east and southeast and undeveloped woodland present to the north, west, and southwest. This preserve is of sufficient size to maintain the karst ecosystem, however, the entrance of the cave is closer to the perimeter of the preserve than ideal.

The proposed approximately 75-acre Canyon Ranch karst preserve would be contiguous with the over 7,000-acre Government Canyon State Natural Area (GCSNA). GCSNA contains several caves located at the same stratigraphic level as the Canyon Ranch caves. The connection between the approximately 75-acre karst preserve and Government Canyon State Natural Area will contribute to protection for the entire karst ecosystem that includes Scenic Overlook Cave, Canyon Ranch Pit, and Fat Man's Nightmare.

Three of the off-site preserves (Madla, John Wagner Ranch, and Helotes Hilltop/Blowhole) are of insufficient size by themselves to provide a high probability for long-term conservation of the species.

However, the size and shape of these preserves is based in part on the land surrounding the features that was practicably available for sale during preparation of the HCP (Robert Kuhn, sworn affidavit). These three preserve sites are the type localities for four of the nine listed karst invertebrates. Additionally, all three preserves are adjacent to or surrounded by undeveloped lands that are currently contributing to the long-term conservation of these sites. Therefore, the merits of these sites and the lack of availability for sale of additional lands around them, makes them of conservation benefit to this Preferred Alternative.

Total acreage for the Madla Cave preserve is approximately 5-acres. Vegetation in the area generally consists of Ashe juniper/live oak woodland. The proposed preserve encompasses the entire surface drainage area and approximately 80% of the potential subsurface drainage area as delineated by Veni and Associates (1994). The cave preserve is surrounded by undeveloped land. The 5-acre preserve will be conserved through a conservation easement. This cave is the type locality for *Rhadine infernalis* and *Cicurina madla*.

The proposed approximately 4-acre John Wagner Ranch Cave #3 preserve lies within a small residential neighborhood in the Grey Forest area of northwestern Bexar County. Land to the east, west, and south of the proposed preserve area contains low density (1-5 acres) occupied residential lots. Land to the north consists of undeveloped scrubby ranch land and woodland. A relatively high diversity of troglobitic species coupled with presence of low-density residential areas immediately to the east, west, and south and a large tract of undeveloped land to the north made acquisition and management of the preserve area highly desirable. This cave is the type locality for *Rhadine exilis*.

The proposed approximately 25-acre karst preserve for Helotes Blowhole and Hilltop caves lies in a low-density developing area, with homes on large lots present nearby to the east, north, and south. The proposed preserve is situated primarily on the eastern slope of a large hill. The proposed preserve encompasses all the surface drainage area, and virtually all of the subsurface drainage area, of these two features (Pape-Dawson, Inc. 2000). Helotes Hilltop Cave is the type locality for *Batrissodes ventyvi*.

Prior to any clearing or construction activities on the Property, the Permittee will acquire and dedicate the karst preserves for conservation and assure operation, maintenance and monitoring in perpetuity. Caves included in the mitigation proposal were chosen based on type and diversity of troglobitic species contained therein and availability of land in surrounding areas. A relatively high diversity of troglobitic species coupled with the presence of undeveloped land for relatively low-density residential areas near these property made acquisition of these preserve areas highly desirable.

Preserve areas for Hills and Dales Pit and the three Canyon Ranch caves were designed and configured to incorporate the suite of biotic and abiotic factors needed to promote the integrity of fully functioning karst ecosystems on which the endangered invertebrates depend. Preserve designs were based on the result of a hydrogeologic investigation of Hills and Dales Pit performed by Pape-Dawson Engineers, Inc. (Pape-Dawson, Inc. 2000), hydrogeologic investigations of the Canyon Ranch caves performed by SWCA (SWCA 2000b), biota collections performed in these features by SWCA, and Service interpretation of scientific literature on habitat patch size, fragmentation, isolation, edge effects, corridors, and other factors considered to affect ecosystem stability. For the Hills and Dales and Canyon Ranch karst preserves, the following factors have been incorporated to the maximum extent possible:

- Zones of hydrogeologic influence determined by Pape-Dawson Engineers, Inc. (2000) and SWCA (2000b) to help protect the karst ecosystems from potential inflow of pollutants and adverse changes in the moisture regime;
- Optimum area needed to maintain viable, self-sustaining populations of cave crickets, including setbacks of 500 feet as allowed by preserve land availability around each cave containing listed

the statutory requirement to minimize and mitigate the impacts of the taking to the "maximum extent practicable,"¹¹ and the FWS failed to announce what standard would be applied in determining "the

species within these preserves. Total size of each of these karst preserves should also help protect other invertebrates (such as daddy-longlegs), mammals, and herpetofauna that may provide nutrients to the caves, as well as help control fire ant infestations and protect native ant communities;

- Area needed to encourage continued presence of terrestrial vertebrates that provide nutrients to caves, such as raccoons, slimy salamanders (*Plethodon albagula*), cliff frogs (*Syrrophus marnocki*), and various other species of vertebrates. A general rule of thumb for determining minimum preserve patch size is to encompass the largest home range size of the species inhabiting that patch (Harris 1984). For karst ecosystems, the raccoon has the largest home territory, ranging from 12-104 acres (Shirer and Fitch 1970; Rosatte et al. 1991). The Hills and Dales and Canyon Ranch preserves each meet this criteria. Additionally, as raccoons readily occur in suburban habitats such as could develop around the John Wagner Ranch Cave #3 and Helotes preserves, proposed boundaries of these preserves are not expected to limit occurrence of raccoons. Karst preserves such as proposed here that incorporate the area requirements for vertebrates will most likely also be large enough to maintain the surface invertebrate fauna; and,
- Minimal habitat fragmentation and isolation. Both Canyon Ranch and Hills and Dales contain large blocks of native vegetation. In addition, the caves in the approximately 75-acre Canyon Ranch preserve are at least 500 feet from the nearest preserve boundary. The cave in the approximately 70 acre Hills and Dales Pit preserve is at least 130 feet from the nearest preserve boundary and well over 500 feet inside the preserve in all other directions. The Canyon Ranch preserve is also adjacent to the Government Canyon State Natural Area, which contains a minimum of 3 caves containing endangered karst invertebrates and owned by Texas Parks and Wildlife Department, for an effective preserve size of over 7,000 acres. Large, contiguous preserves such as these minimize edge effects, habitat fragmentation, and isolation (Diamond 1975; May 1975; Wilcove et al. 1986; Kelly and Rotenberry 1993; Wigley and Roberts 1997; Kindvall 1999). Since roads may hinder movement of several species of invertebrates (Mader 1984; Mader et al. 1990) and small mammals, no new internal roads will occur within the karst preserves unless approved by the Service. Avoiding internal clearing activities and other disturbances of soil and native vegetation will help minimize fire ant infestations (Porter et al. 1988; Porter et al. 1991) and protect native ant communities (Porter et al. 1988; Porter et al. 1991; Suarez et al. 1998).

With the complexity of acquiring this many off-site preserves there is the possibility that one or more of the preserve acquisitions or conservation easements may not be fulfilled. If that occurs, then the Permittee with Service approval may substitute another preserve of equivalent species value to meet the mitigation needs of this Preferred Alternative prior to any clearing or construction activities on the Property.

¹¹ In addition to the Preferred Alternative and the Reduced Development Alternative previously set forth, the Environmental Assessment/Habitat Conservation Plan also included a Greater Development Alternative and a No Action Alternative. The provisions of these alternatives were as follows:

Alternative 3 [Greater Development Alternative] includes primarily commercial development and off-site mitigation as described under the Preferred Alternative. However, under this alternative, one-acre karst preserves would not be established on-site around La Cantera Caves #1 and #2, with setbacks from these

maximum extent practicable." Plaintiff believes the maximum extent practicable standard imposes a clear duty on the FWS to fulfill the statutory command to the extent it is feasible or possible. The fact one alternative is more expensive or less profitable is insufficient to show the alternative financially infeasible. Relying on a California state court case, plaintiff claims what is required is "evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical." Citizens of Goleta Valley v. Board of Supervisors, 197 Cal. App. 3d 1167 (Cal. Dist. Ct. App. 1988). Under these standards, plaintiff argues that the manner in which the FWS proceeded is arbitrary and capricious because it allowed La Cantera to "take" the species as it desired.

FWS agrees that before an incidental take permit could be issued to La Cantera in this case, the FWS had to find that La Cantera would to the maximum extent practicable, minimize and mitigate the impacts of the incidental taking. As set out in the Service's Habitat Conservation Planning Handbook, the "maximum extent practicable" standard has been interpreted as follows:

This finding typically requires consideration of two factors: adequacy of the minimization and mitigation program, and whether it is the maximum that can

features limited to those acceptable to the TNRCC for recharge features located on the Edwards Aquifer Recharge Zone. Such setbacks would be approximately 100 feet up-gradient and 50 feet down-gradient of the cave entrances and encompass about 0.5 acres around each cave. La Cantera Cave #3 would be sealed (top 10-15 feet of a 70 ft. cave) and covered by a detention pond as described under Alternative 1.

This development option was analyzed by the Service with the assumption that no endangered species habitat value would remain anywhere on the Property following development. However, additional mitigation off-site would be required; therefore, the Applicant chose not to pursue this option.

This alternative [No Action] assumes that the proposed development does not occur and that no application for an incidental take permit is processed. Choosing this alternative would not result in take of endangered species, nor would any development occur. In addition, the 179 acres proposed as off-site mitigation under Alternative 1 would not become part of a karst preserve system in perpetuity and there would be no active long-term management on- and off-site for listed species. No type of monitoring or management would be done as proposed in the HCP, and land surrounding all on- and off-site caves would be subject to unauthorized all-terrain vehicle, mountain bike, and dumping use, as well as be vulnerable to vandalism. Fire ants would also be likely to become more of a threat without active management. This alternative would also provide no economic value for the current Landowners; therefore, the Applicant chose not to pursue this option.

practically be implemented by the applicant. To the extent that the minimization and mitigation program can be demonstrated to provide substantial benefits to the species, less emphasis can be placed on the second factor.

The Handbook also explains that it is only "where the adequacy of the mitigation is a close call the record must contain some basis to conclude that the proposed project is the maximum that can be reasonably required by that applicant." FWS contends the mitigation and minimization measures proposed by La Cantera were carefully considered by it in its Findings and Recommendations on Issuance of an Incidental Take Permit,¹² and in its Biological Opinion for La Cantera Development Company.¹³ FWS contends that in order to minimize the take of the affected species, La Cantera

¹² Issue 6 in the Findings concerned the belief by several commentors that the mitigation was inadequate with the amount of impact proposed especially since the FWS was accepting mitigation caves outside of the UTSA karst region where the take was proposed to occur. In response the FWS wrote:

We believe, commensurate with the amount of take proposed (reduction of non-developed area around La Cantera caves #1 and #2 to one acre each and filling of Cave #3), the Applicant has adequately mitigated to the maximum extent practicable not only through preservation of 179 acres and 8 caves, but also with long-term management and monitoring of those caves, and certain outreach and research projects that will further species protection and conservation. The off-site mitigation preserves contain four caves total with *R. exilis*, in three preserves (two in the UTSA region and one in the Helotes region); eight total caves with *C. madla*, in five preserves (two in the UTSA region, two in the Helotes region, and one in the Government Canyon region); and six total caves for *R. infernalis*, in four preserves (one in the UTSA region, two in the Helotes region, and one in the Government Canyon region). The *C. madla* locations include three of the eight confirmed locations for this species.

In addition, adaptive management provisions are included in the HCP to allow alteration of management practices in light of subsequently developed biological information. As explained in Section 4.1 of the EA/HCP, while we refer to the buffers around La Cantera caves #1 and #2 as on-site setbacks the Applicant refers to them as preserves in the HCP. We do not believe 1 acre each is sufficient for long-term viability for cave species, therefore, additional cave preserves were necessary to mitigate the impacts to these caves.

Normally priority should be given to acquiring mitigation in the same karst region where impacts occur unless recovery criteria have been met in that region. However, the Applicant was limited by what land was practicably available for sale during preparation of the HCP (Robert Kuhn, November 25, 2000, and Guy B. Seay, December 8, 2000; sworn affidavits provided to us by La Cantera). Therefore, the Applicant had to look outside of the region for other high priority locations for the species, some of which provide protection to other endangered karst invertebrates (for example: *Batrises venyivi* in Helotes Hilltop Cave). It should be noted that all off-site preserve caves are considered to be of equal or greater quality than the La Cantera caves being impacted by the proposed development.

¹³ In the "Analyses for effects and species' response to the proposed action" section of the Biological Opinion, the FWS wrote:

provided two one-acre set-backs from caves inhabited by the endangered species; has purchased and insured the perpetual preservation of eight caves on five off-site karst preserves totaling 179 acres with the preservation measures for both on-site and off-site preserves to include: routine inspections,¹⁴

In evaluating the effects of the proposed action... we assessed the impacts in relation to the conservation strategy outlined for similar species in the Endangered Karst Invertebrates Recovery Plan for Travis and Williamson counties, Texas (1994). Recovery criteria in that plan call for the preservation, in perpetuity, of three karst fauna areas (areas separated from each other hydrologically and geologically), if three exist, for each species within each karst region. In reviewing the status of the affected species, we determined that three karst fauna areas within the UTSA karst region will exist after the proposed development... In addition, all off-site preserve caves being provided as mitigation in the HCP are considered to be of equal or greater quality than the La Cantera caves being impacted by the proposed development.

The Applicant refers to the on-site setbacks as preserves in the HCP. We do not believe 1 acre is sufficient to provide a high probability for long-term viability for cave species, therefore, additional cave preserves are necessary to mitigate the impacts to La Cantera caves #1 and #2. In addition, we do not anticipate the species in La Cantera Cave #3 will survive in the long-term after the top 10-15 feet of the entrance is filled.

Not all of the off-site preserves are of ideal size for providing the highest probabilities for long-term survival of the karst invertebrates because the majority of surrounding land was not available to the Applicant at the time of HCP development. However, additional acreage does exist around the preserves and is currently contributing to conservation of these species; and thus, this land around those caves may become available for preservation in the future. The Applicant has agreed to contribute money toward development of outreach materials and to provide updated maps three times a year for three years from permit issuance as described in Section I of this Biological Opinion. This information will enhance the Service's ability to work with surrounding landowners and encourage more proactive protection and conservation efforts. The applicant has also agreed to provide funds for developing definitive genetic techniques for identifying specimens of *Cicurina* (regardless of sex or age). The ability to quickly and definitively identify this species will greatly enhance conservation efforts for this species.

Caves included in the mitigation proposal were chosen in part based on type and diversity of troglobitic species contained therein and availability of land in surrounding areas. A relatively high diversity of troglobitic species and the presence of undeveloped land for relatively low-density residential areas near these properties made acquisition of these preserve areas highly desirable.

¹⁴ 6.3.1 Routine Inspections for On- and Off-site Preserves contained in the Environmental Assessment/Habitat Conservation Plan provide:

Site inspections of karst preserves will be conducted. Such inspections will be performed from the time of permit issuance. A site inspection form will be filled out by the site inspector and kept on file. Copies of these inspection forms will be presented as part of an annual management report to the Service. These regular inspections will include, but may not be limited to: signs of vandalism and unauthorized entry; damage to cave gates, fencing, and/or signs; damage to vegetation; presence of fire ants or other non-native species; dumping; and any other conditions that could impact the listed species or the karst ecosystem.

Site inspections every other month will cover Madla's, John Wagner's, Helotes Hilltop and Blowhole,

vegetation and habitat management,¹⁵ red-imported fire ant control,¹⁶ fencing, signage,¹⁷

and La Cantera's on-site preserves in their entirety.

On a monthly basis, Hills and Dales and Canyon Ranch preserves will have the area within 500 feet of the cave entrances and any cave security fences inspected. The perimeter will be inspected two times a year. The rest of the property will be inspected annually. If trespassing is evident, it will be investigated when found.

Conditions encountered during inspections will be addressed in accordance with the provisions elsewhere in Section 6.3.

¹⁵ 6.3.2 Vegetation/Habitat Management for On- and Off-site Preserves in the Environmental Assessment/Habitat Conservation Plan provides:

Native vegetation will be maintained or improved within the karst preserves. No clearing, mowing, cutting, thinning, or other activity that removes native vegetation will occur within the karst preserves unless approved by the Service. A baseline vegetation survey will be conducted using a quantitative method to appraise the current condition of each karst preserve. These surveys will be conducted for La Cantera Caves #1 and #2 prior to initial clearing or construction on the eastern portion of the Property (east and south of La Cantera Parkway), and within six months of permit issuance for all off-site preserves. Specific techniques should be approved by the Service as part of the KMMPs [Karst Preserve Management and Monitoring Plans]. Pilot nested-plot techniques, add-on sample area techniques, or comparable techniques approved by the Service, will be used to construct and examine species-area curves to determine sampling intensity needed. Data collected for woodland areas should include species composition, density, dominance, importance, reproductive profile (size classes), and degree of openness of the canopy. Grassland areas should measure species composition, and relative species dominance and importance, percent total cover, percent bare ground, and rockiness of surface. Non-native species should be noted and their relative dominance and importance examined for both community components of the grassland/woodland habitat mosaic. This baseline information will be used to evaluate the degree of invasion by non-native species and the need for restoration or manipulation of the vegetation in the area to achieve the stated objectives of maintaining a viable native plant community. The KMMPs for each preserve will address any initial restoration and maintenance needs, and will be revised, with Service approval, as needed, based on results of vegetation surveys described below.

It is possible that a prolonged drought could occur that would greatly increase the potential for a catastrophic wildfire event. In such a case, the security provided by the creation of fire breaks within preserve areas may outweigh the loss of a small amount of vegetation, but could increase exotics and non-native species including fire ants. The Permittee or Management will seek prior Service approval prior to creating any fire breaks within preserve areas. In the event of a drought, signs will be placed at prominent locations around the preserve warning of fire hazard conditions.

Every five years after the initial construction is initiated on the eastern portion of the Property (east and south of La Cantera Parkway) and thereafter until either five years after build-out of that portion of the property or expiration or termination of the permit occurs, a quantitative vegetation survey of the on-site La Cantera cave preserves will be done to examine the status of the vegetation and to evaluate any potential need for adaptive management. Decisions regarding adaptive management must be approved by the Service. Every 10 years after build-out and until the expiration or termination of the permit, quantitative vegetation surveys will be conducted. All vegetation surveys will be compared to prior years, with an evaluation of adaptive management needed. For off-site preserves quantitative surveys will also occur; however, they will occur every 10 years from the date of the initial survey until the expiration or termination of the permit. Lowest impact management techniques will be used and must

be approved by the Service for appropriateness and minimal impacts to listed species from direct or indirect effects.

If during surveys/site inspections by the Management or Permittee, during Service review of reports, or reports by a third party, a determination is made by the Service that destruction or deterioration of surface vegetation, deleterious shifts in community composition regardless of cause, an imbalance in community structure of the native plants (as evaluated against literature examining the typical mature vegetation composition for these community types), an increase in non-native flora, or an abnormal constituent of the dominant plant community within the karst preserves is/has occurred, then adjustments to the management program may be warranted. Such impacts could result from excessive drying of the plant community along the edges of the preserve, fire, storm damage, invasion of exotics, oak wilt, other disease, or other perturbations. Adjustments will be made promptly within a reasonable time by the Permittee or Management in consultation with the Service. Adjustments will not include expansion of any preserve areas at the expense of Management of the Permittee.

¹⁶ 6.3.3 Red-Imported Fire Ant Control for On- and Off-site Preserves of the Environmental Assessment/Habitat Conservation Plan provides:

A fire ant control and treatment program will be detailed in each KMMP and conducted under the acknowledgment and approval of the Service. Such a program will include the removal of fire ants or any other non-native species that are likely to result in degradation of the protection and preservation of endangered invertebrate species or the ecosystems on which they depend. Fire ant control will be based on the following criteria, although adjustments may be made to this program with Service approval.

Within 164 ft of the footprint of any karst features that have listed invertebrates or cave crickets, fire ant control is restricted to the use of boiling water or steam. One to four gallons of boiling or near-boiling water should be poured directly onto the mounds. Small amounts (1-2 tsps.) of detergent may be added to the boiling water. More than 164 ft from the footprint of any karst feature, either boiling water, steam, or chemical baits (such as Amdro or Logic) may be used (see restrictions that follow). If chemical baits are used between 164 and 500 ft from a karst feature, the following protocols must be met: (1) baits must be placed in containers appropriate to allow fire ant access but that will allow baits to be removed at the end of the day, (2) the bait must be placed out in mid-morning, (3) the ground must be dry, (4) the ground temperature must be between 70° F and 95° F, (5) there must be no rain predicted for that day, and (6) all uneaten bait must be removed by sunset. If chemical baits are used more than 500 ft from any karst feature, the baits may be "broadcast", but the following protocols must be met: (1) the bait must be placed out in mid-morning, (2) the ground must be dry, (3) the ground temperature must be between 70° F and 95° F, (4) there must be no rain predicted for that day, (5) no more than 1.5 pounds of bait per acre may be used, and (6) broadcast baits should not be used if the presence of re-imported fire ants has not been verified within the previous year. If there are changes to the Service guidelines on fire ant control in the future and the Service believes these changes would be appropriate for these sites, those changes will be incorporated by the Management. Care should be taken to avoid misidentification of ant species and impacts to native ant species.

Fire ant control will be conducted on the karst preserves at least twice a year in the spring and the fall. Monitoring for fire ants will be conducted at least twice a year immediately preceding the required biannual fire ant control. Monitoring must be conducted over the entire karst preserves and must be sufficient to yield actual fire ant mound densities, not merely indices of fire ant density. Counts of fire ant mounds in the vicinity of cave entrances (up to 164 ft) must be incorporated into the routine monitoring and maintenance schedule. Specific protocols for fire ant monitoring must be developed as part of each site's KMMP, and approved by the Service, before clearing or construction on the property may commence. An increase in the frequency of fire ant control will be required if either of the

following conditions are met during any survey: (1) fire ant densities are greater than 40 mounds per acre or (2) there are greater than 40 mounds within 164 ft (the approximate cricket foraging radius) of the entrance to any karst feature that has listed species or cave crickets. If the density of fire ants does not go below both of the preceding levels after an increase in the frequency of fire ant control, the frequency of fire ant control must be increased again until the density of fire ants is below both of the levels by the next fire ant survey. Additionally, if fire ant mounds are ever observed within 33 ft of any karst feature on the karst preserves or if biological investigations find any fire ants within any cave that has endangered invertebrates or cave crickets, all mounds within 33 ft of that cave entrance must be treated within 15 days.

If necessary to provide access for fire ant control, the Permittee or Management, with prior Service approval, may create rough-in trails suitable to allow 4x4 vehicle access to points within 50 feet of the caves. These rough-in trails will require minimum trimming or clearing of vegetation and minimum ground disturbance. If the Service fails to approve any rough-in trail proposal by Permittee, the Service shall provide an alternative fire ant control technique for the applicable preserve.

The Applicant believes that some of the fire ant control techniques or protocols specified above may be impractical or inefficient with respect to some of the preserves. It is anticipated that the Permittee and the Service will explore and detail in the KMMP's potential alternative techniques, such as high pressure steam systems and improved baiting protocols, as warranted on a site-specific basis.

¹⁷ 6.3.5 Fencing, Signage, and Access Point Maintenance for On- and Off-site Preserves of the Environmental Assessment/Habitat Conservation Plan provides:

Access to the karst preserves will be restricted to authorized personnel and researchers approved by the Service and not objected to by Management.

Cave security fences, with design and placement acceptable to the Service, will be installed around the on-site karst preserves prior to any site preparation, clearing, or construction activities. Consideration should be given to incorporating as much of the surface and subsurface hydrology as possible. Fences for off-site preserves will be installed within 6 months of permit issuance.

Cave security fences will be a minimum of 6-ft high and of such construction that adults or children cannot easily climb over or crawl under the fence. However, the fence should also be designed so as not to prevent or deter small to medium-sized vertebrates that may be important components of the karst ecosystem from passing through the fence. This can be accomplished by leaving animals access holes, similar to those used in cave gates, at ground level for at least every 5 m (16 ft) of fence. John Wagner and Madla preserves will have this type of fence installed around the perimeter of the preserve. The Canyon Ranch caves will be incorporated within a single cave security fence. The best locations for this security fence should be identified in the KMMP and be far enough away that the entrances to the caves are not easily visible from outside the fence.

Hills and Dales, Canyon Ranch, and Helotes Blowhole/Hilltop preserves will have barbed-wire fences composed of five strands installed around the entire preserve perimeter with associated no trespassing signs. Consideration will be given, subject to Service approval, to areas that may not require perimeter fencing due to their location adjacent to other open space. The Helotes Blowhole and Hilltop caves will be gated by Service approved gates. If vandalism or trespassing occurs on Hills and Dales and/or Helotes Blowhole/Hilltop preserves, the Service will determine if a cave security fence is necessary for either of these preserves. Adjustments will be made within 30 days of the Service's determination.

Signs, to be approved by the Service, will be placed along all fences to further minimize the potential for vandalism and unauthorized access to the karst preserves.

cave-gating,¹⁸ control of mammals,¹⁹ surface and subsurface monitoring,²⁰ and other measures.²¹ In

Karst preserves will have officially designed points of access or entry. Entry gates will remain locked at all times when unattended. Cave security fences and their signs and cave gates will be maintained and inspected by the Permittee or management during routine inspections; barbed wire fences will be inspected at least every 6 months. Necessary repairs to fencing, gates, and signs will be initiated within one week if any of these are found to have incurred damage.

If vandalism or trespassing occurs, the Service may determine that increased monitoring or security may be warranted which may include, but is not limited to, more frequent surveys of the fences, installing or improving cave gates, increased barb-wire strands, and/or installing cave security fences. Adjustments will be made promptly within a reasonable time in consultation with the Service.

¹⁸ 6.3.5 Cave Gating for On- and Off-site Preserves in the Environmental Assessment, Habitat Conservation Plan provides:

Fencing the karst preserves and encouraging the growth of native vegetation to help conceal cave entrances should reduce the need for cave gates (cave gates are already installed on La Cantera caves #1 and #2 and Hills and Dales Pit). Both Helotes Hilltop and Helotes Blowhole caves will be gated within 6 months of permit issuance due to observations of vandalism and trespass. If unauthorized entry becomes a problem with the remaining caves despite perimeter and cave security fences, entrances of caves containing listed species within the karst preserves may need to be gated for the protection of the cave's contents and control of cave access. Existing cave gates may also need to be replaced, repaired, or removed. Cave gate design and placement must be approved by the Service. Cave gate installation or repair will occur promptly within a reasonable time in consultation with the Service unless otherwise specified in this HCP. Cave gates will meet all requirements, standards, and guidelines for design and application or installation for endangered invertebrate species habitat caves, as approved by the Service. All cave gates will be maintained and inspected by the Permittee or Management during routine inspections.

¹⁹ 6.3.6 Control of Mammals for On- and Off-site Preserves in the Environmental Assessment, Habitat Conservation Plan provides:

The following methods will be implemented, as necessary, to control the impacts from increasing population densities of white-tailed deer and other mammals on surface plan and animal communities. Any measures invoked will be in coordination with and approved by the Service.

Deer and feral hogs often occur in greater density adjacent to suburban areas than in undeveloped areas due to greater availability of food. High densities of deer and feral hogs are known to have a long-term adverse effect on the abundance and distribution of trees, seedlings, and saplings by increasing browsing pressure (deer) and uprooting vegetation (hogs). The subsequent decrease in the deciduous tree component of the wooded areas could lead to shifts in both plant and animal communities. For off-site preserves, if effects of excessive browsing pressure, a lack of oak seedling recruitment, and/or vegetation damage are found, the Permittee or Management will implement appropriate techniques to remedy these damages in coordination with the approval by the Service. Corrective actions will be taken promptly within a reasonable time in consultation with the Service. Such actions may include hunting, trapping, or other deer and hog population reduction programs. The karst preserves will be available for censusing conducted by the State or other agencies interested in assessing deer and feral hog population levels.

Some mammals that provide nutrient input into karst ecosystems are also predators of insects and other fauna, and thus may potentially become a threat at higher densities, including raccoons, mice (*Peromyscus* sp.), opossums, and skunks. Domestic and feral cats and dogs and rats and mice

associated with human habitation, may also impact native animal communities. Monitoring is needed to establish baseline densities of mammals and will be conducted following Service review and approval of the monitoring design and methodology as part of the KMMPs. A baseline survey for mammals will be conducted on the La Cantera cave preserves prior to initiation of construction activities on the Property and within one year of permit issuance on off-site preserves.

Following initiation of construction on the Property or adjacent to off-site preserves, if the number of cave crickets or other native fauna that support the karst nutrient regime begin to decrease, additional monitoring will be conducted to determine if the number of mammals is changing (increasing or decreasing).

If the number of mammals increases or decreases and is believed to be a threat to the karst ecosystems, a program to remedy the situation will be implemented. Such a program will only be implemented after approval from the Service, but within 6 months of detection.

A wildlife biologist trained in plant ecology or a plant ecologist will conduct annual inspections of the off-site karst preserves to assess browse pressure, oak seedling recruitment, and vegetation damage from deer and feral hogs.

If during surveys/site inspections by the Management or Permittee, during Service review of reports, or reports by a third party, a determination is made that evidence of excessive browsing pressure by deer; lack of sufficient oak seedling recruitment; wild hog damage; potentially harmful numbers of or an increase in non-native fauna within the karst preserves such as certain cockroaches, rats, or imported fire ants; or an inadequate number (either too low or too high) of native vertebrates known to frequent the caves such as mice, amphibians, raccoons, and snakes has occurred, then adjustments to the management program may be warranted. Adjustments will be made promptly within a reasonable time in consultation with the Service.

²⁰ 6.3.9 Monitoring In and Around the Cave for On- and Off-site Preserves in the Environment Assessment/Habitat Conservation Plan provides:

The Permittee or Management will develop a monitoring plan in coordination with and subject to the approval of the Service as part of the KMMP. The monitoring plan needs to be designed to assess the status of the listed species, the karst ecosystem, and the effectiveness of management in meeting the goals and objectives of this HCP. In the event that elements of preserve management are not meeting these goals and objectives, monitoring will help determine what factors are most likely causing any declines or detrimental effects, so that effective management actions can be implemented and adjusted as needed.

The monitoring plan needs to address components of both the surface and subsurface communities and environments that are important to the Covered Species. Methods should be designed to minimize impacts on the Covered Species. The monitoring program needs to be adequate to assess whether the Permittee or Management is successful in conserving the Covered Species and to determine what factors may be contributing to any observed declines or deleterious effects. The monitoring plan will include, but is not limited to, the following components:

- a. Baseline monitoring will begin prior to clearing and construction on the portion of the Property east of La Cantera Parkway for the La Cantera caves and within 6 months after permit issuance for off-site preserves.
- b. Surveys for listed species within all caves with listed species will occur every year, and will be done at the same time of year (within 30 days) during the Spring (March through June) or Fall (September

through December). Monitoring in all caves with listed species will include, but is not limited to:

1. all vertebrates and invertebrates, alive or dead, including troglobites, troglaphiles, troglonexes, and accidental species;
 2. quantities for each species (approximations may be made for very abundant species);
 3. microhabitat descriptions and locations (maps and descriptions) within the cave of each listed species;
 4. types (identified as specifically as possible) and approximate quantities of other organic matter including leaf litter, fungus, feces, bones;
 5. sign of mammal or other troglonexe or accidental vertebrates (for example, scratch marks, middens, nesting materials, shed skins);
 6. Temperature and humidity within the cave at the time of the survey, recorded with equipment other than the dataloggers.
- c. Monitoring of the cave environment (temperature and humidity) within each endangered species cave will be continuously recorded on a 24-hour basis with automated dataloggers. These data will be downloaded during the annual cave interior monitoring. Additionally, cave cricket abundance surveys will be conducted twice a year and will always be done at the same time of year (within 30 days) during the Spring (March through June) and Fall (September through December) unless otherwise approved by the Service.
- d. Measurements of surface temperature and relative humidity and notations made of recent weather events (for example, drought, recent rain, heat waves, cold spells, tornadoes) will be reported for each of the monitoring visits described above.
- e. Monitoring of the surface community for:
1. imported fire ants (section on Red-Imported Fire Ant Control);
 2. status and changes in vegetation (section on Vegetation/Habitat Management);
 3. numbers of mammals that may be either beneficial or detrimental to the karst ecosystem and the surface community on which it depends (mice and other small mammals, raccoons, deer, feral hogs, and feral or stray cats and dogs);
 4. browse pressure, oak seedling recruitment, and vegetation damage from deer or feral hogs;
 5. invertebrate abundance in leaf litter.

²¹ 6.3.8 Other Conditions for On- and Off-site Preserves in the Environmental Assessment/Habitat Conservation Plan provides:

The following conditions will be included in all conservation easements and deeds:

Cattle, other domestic and/or exotic livestock, and pets will not be allowed in the preserve areas unless approved by the Service.

No fertilizers, herbicides, or pesticides will be used within the karst preserves unless approved by the Service.

No new roads, new utilities, or other development including stormwater or wastewater lines, treatment ponds, structures or other facilities are allowed within karst preserve boundaries unless allowed for under this HCP or approved by the Service.

addition to the on-the-ground preservation measures, La Cantera is also funding outreach and research programs.²²

FWS disagrees with plaintiff's proposition that it was required to impose on La Cantera the "Reduced Development" alternative because section 10 of the ESA does not authorize the FWS to impose any alternative on any applicant²³ and the FWS has made this position clear in its Handbook.²⁴

Motorized vehicles will be prohibited from preserve areas at all times, unless utilized to facilitate operation, monitoring, and maintenance of preserve areas.

No public access will be allowed on the karst preserves including hiking, biking, and horseback riding unless approved by the Service.

²² As provided at 6.1 of the Environmental Assessment/Habitat Conservation Plan:

The Permittee will provide \$20,000 to The Nature Conservancy of Texas (or other entity approved by the Service) toward outreach efforts with the goal of raising awareness, understanding, and appreciation for Bexar County endangered karst invertebrates. Outreach materials will be produced in consultation with and approved by the Service. A Texas Nature Conservancy professional will be involved that is familiar with different types of media and understands what information is effective for different groups, taking into account such things as age and type of landowner (for example, corporation or individual). The end goal is to increase understanding and appreciation for these species. The Nature Conservancy will be required to agree that the materials will be completed within one year of permit issuance.

The Permittee will also contribute to further research in aid of karst fauna conservation, as follows:

Three times a year, for three years from permit issuance, the Permittee will provide to the Service printouts of northern Bexar County multi-layered maps to include the following layers: karst fauna regions, karst zones, updated plats, and land use types. The Permittee will not be responsible for generating, or for the accuracy of, the date, upon which the maps will be based.

The Permittee will fund genetics studies by Dr. Marshall Hedin, San Diego State University in an amount of \$15,000. These studies will be designed to provide techniques for definitive species level identification of immature specimens of eyeless *Cicurina* spiders in northern Bexar County.

²³ The relevant portions of section of the ESA, found at 16 U.S.C. §§ 11539(a)(2)(A) &(B) provide:

No permit may be issued by the Secretary authorizing any taking referred to in paragraph (1)(B) unless the **applicant** therefore submits to the Secretary a conservation plan that specifies---

- (I) the impact which will likely result from such taking;
- (ii) what steps the **applicant** will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps;
- (iii) what alternative actions to such taking the **applicant** considered and the reasons why such alternatives

Instead, FWS maintains its duty is to analyze the applicant's proposal to ensure that the impacts of the chosen alternative are minimized and mitigated to the maximum extent practicable.²⁵ Plaintiff has failed to offer evidence that the minimization and mitigation measures proposed by La Cantera fail to meet

are not being utilized; and

- (iv) such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan.

If the Secretary finds, after opportunity for public comment, with respect to a permit application and the related conservation plan that---

- (I) the taking will be incidental;
- (ii) the **applicant** will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;
- (iii) the **applicant** will ensure that adequate funding for the plan will be provided;
- (iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and
- (v) the measures, if any required under subparagraph (A)(iv) will be met;

and he has received such other assurances as he may require that the plan will be implemented, the Secretary shall issue the permit. (Emphasis added).

²⁴ As set forth in FWS's motion, the Handbook provides at 3-36 as follows:

FWS ... [does not] have the authority to impose a choice among the alternatives analyzed in the HCP. The Service's role during the HCP development phase is to advise the applicant in developing an acceptable HCP, and, when necessary to try to dissuade the applicant from selecting alternatives not consistent with permit issuance criteria.

²⁵ In support of its motion for summary judgment, La Cantera also argues the FWS is not required to impose an alternative on the applicant in order to minimize the extent of the take. In support of its position, La Cantera not only relies on section 10 of the Endangered Species Act but also on Gerber v. Babbitt, 146 F. Supp. 2d 1, 5 (D.D.C. 2001). In Gerber, the court, in response to plaintiffs' complaints about the adequacy of the Service's analysis of the proposed development and the proposed mitigation efforts, wrote:

The [Fish & Wildlife] Service cannot mandate that an applicant for an ITP implement any one particular alternative. While the Administrative Record demonstrates that the Service was aware that moving the access road might result in a slightly decreased incidence of DFS [Delmarva fox squirrel] takes, it ultimately concluded that moving the road would require WCLP to stop work on the Home Port project and to reinitiate state zoning and permit application procedures. Given both the Service's and the developer's expertise in such projects, their conclusion that this would render the project impractical is entitled to deference, and plaintiffs have failed to establish that it was arbitrary, capricious or not in accordance with law.

the requirements of section 10. Therefore, plaintiff's argument that FWS's actions were arbitrary and capricious because they failed to explain why the Reduced Development Alternative was rejected is without merit.

Moreover, even if FWS had a duty to consider the alternatives, a consideration of the alternatives was made. The La Cantera caves were found to be in close proximity to existing roadways and did not provide ideal conditions for the long-term protection of the species as would the offsite preserves to be acquired by La Cantera in mitigation of their incidental taking.²⁶ Therefore, FWS states

²⁶ In support of this assertion, FWS points to the following excerpts in the record:

Extensive ground surveys throughout the Property found that *Rhadine exilis* and a *Cicurina sp.* most likely *C. madla* are known from caves on the Property. Only three caves containing the listed karst invertebrates have been found. Two of these caves (La Cantera Caves #1 and #2) are known to contain *Rhadine exilis* and *Cicurina madla*. The entrances to both caves lie within 200 feet of the west-bound frontage road of Loop 1604, a heavily traveled road. Also, both caves are immediately south (approximately 100 ft) of Retail Road, a two-lane road designed and constructed in 1999 to serve traffic to and from the commercial developments of La Cantera. The entrance to La Cantera Cave #3, which contains *Cicurina madla* lies within 100 feet of La Cantera Parkway (Figure 2). Due to the proximity of all three caves to existing roadways, these features do not provide ideal conditions for long-term protection of the endangered invertebrates, and are considered by the Service to be medium quality.

AR 1, A4, 0023.

In addition, all off-site preserve caves being provided as mitigation in the HCP are considered to be of equal or greater quality than the La Cantera caves being impacted by the proposed development.

AR 1, A4, 0025.

Not all of the off-site preserves are of ideal size for providing the highest probabilities for long-term survival of the karst invertebrates because the majority of surrounding land was not available to the Applicant at the time of HCP development. However, additional acreage does exist around the preserves and is currently contributing to the conservation of these species; and thus, this land around those caves may become available for preservation in the future. The applicant has agreed to contribute money toward development of outreach materials and to provide updated maps three times a year for three years from permit issuance...This information will enhance the Service's ability to work with surrounding landowners and encourage more proactive protection and conservation efforts. The Applicant has also agreed to provide funds for developing definitive genetic techniques for identifying specimens of *Cicurina* (regardless of sex or age). The ability to quickly and definitively identify this species will greatly enhance conservation efforts for this species.

Caves included in the mitigation proposal were chosen in part based on type and diversity of troglobitic species contained therein and availability of land in surrounding areas. A relatively high diversity of troglobitic species and the presence of undeveloped land for relatively low-density residential areas near these properties made acquisition of these preserve areas highly desirable.

it accepted the one-acre setbacks around the La Cantera caves #1 and #2 with implementation in perpetuity of measures to protect the species there and required La Cantera to acquire and maintain off-site mitigation based on the impact on the number and quality of the caves on the La Cantera property.²⁷

The acquisition and permanent preservation of 8 caves within a total of 179 acres (John Wagner Cave #3, Hills and Dales Pit, Helotes Hilltop, Helotes Blowhole Cave, Scenic Overlook Cave, Canyon Ranch Pit, Fat Man's Nightmare Cave, and Madla's Cave), not only provides some protection of *R. exilis* and *C. madla*, but also provides conservation opportunities for other listed invertebrates, including *Rhadine infernalis* and *Batrissodes venyivi*, as well as at least two new undescribed troglobitic spider species, a *Neoleptoneta* n.s. and a *Texella* n.s. The proposed mitigation caves also include the type localities of four of the nine Bexar County listed invertebrates (Table 1). Additionally, the educational outreach materials and research efforts will continue to contribute to our knowledge and understanding, as well as the public's, of these species.

AR 1, A4, 0025-26.

The La Cantera caves are vertically-oriented vadose shafts which evolved to rapidly transmit recharging precipitation to the water table under cooler, wetter paleoclimatic conditions. The landscape under which they originally evolved has long-since been eroded away and they remain as truncated conduits which still function as recharge features transmitting less water, less frequently than in the past. Accordingly, the caves have few horizontal surfaces relative to the total volume of the passage and those surfaces tend to get scoured or submerged during recharge events. With few horizontal surfaces where organic material can accumulate, habitat for springtails and other detritivores which, in part, constitute the base of the troglobitic food chain, is limited. Shelter areas for cave crickets are also limited. The vertical nature of passages also makes habitation by small mammals fairly treacherous. Consequently, it appears that the quality of terrestrial karst invertebrate habitat in the La Cantera caves varies temporally and is, in general, poorer than caves with more laterally extensive passage which is sheltered from scouring and those with more suitable habitat for small mammals and crickets. Population sizes of fauna observed in the La Cantera have been low relative to other caves. This is especially true of La Cantera Cave #3 which was closed to the surface prior to the excavation by SWCA and therefore deprived of a regular nutrient source. Given this condition, it is important to note that the caves proposed for mitigation are of a much higher quality (density and diversity of species) than the caves on the La Cantera property which may be impacted by development.

AR 3, B96, 1782.

²⁷ As set forth in the Environmental Assessment/Habitat Conservation Plan at section 6.2:

The Applicant will cause seven karst preserves totaling 181 acres to be protected in perpetuity. The karst preserves include two 1-acre on-site preserves, one for each of La Cantera Caves #1 and #2, and five off-site preserves totaling approximately 179 acres. Off-site preserves include: an approximately 5-acre area encompassing Madla Cave; an approximately 4-acre area encompassing John Wagner Ranch Cave 3; approximately 70 acres encompassing Hills and Dales Pit; approximately 25 acres encompassing Helotes Hilltop and Helotes Blowhole caves; and approximately 75 acres on the Canyon Ranch property that encompass Scenic Overlook, Canyon Ranch Pit, and Fat Man's Nightmare caves. All of the off-site karst preserves contain endangered karst invertebrate species, as well as other cave-adapted species.

The shape and size of Hills and Dales and Canyon Ranch karst preserves were largely designed based on hydrogeologic investigations and an assessment of the surface area necessary to sustain the karst

In fact, Dr. Veni, upon whom plaintiff relies in support of its motion, stated that "[t]he rectangular shape of the proposed 100-acre La Cantera preserve will result in considerable adverse edge effects on the three La Cantera caves, which are especially susceptible since they are near the edges of the property. Therefore, this proposed preserve would help but will not be adequate to fully protect these species." AR 1, A69, 0641. Dr. Veni recommended to FWS that the Reduced Development Alternative with additions from the Proposed Alternative be accepted because it was the only alternative that protected *Mixojapyx* (which is a species not at issue in this case).²⁸ In contrast, SWCA Environmental Consultants opined there was no quantitative data to indicate that the two listed species found within La Cantera Caves #1 and #2 would perish within the 1 acre setbacks.²⁹ In addition to this

ecosystems. However, Hills and Dales preserve contains most, but not all, of the surface drainage for the cave due to different ownership of those adjacent lands. The known extent of underground passage of each of the caves within these preserves is included within the karst preserves, as well as the area of native vegetation required for cave system integrity. These preserves include sufficient area to maintain the native plant communities that support the ecology of the caves and the habitat of the animals that provide nutrient input to the caves. The configuration of the Hills and Dales and Canyon Ranch preserves was also designed to minimize detrimental edge effects from adjacent development and maximize connectivity for normal dispersal of essential species. The size and shape of these preserves is based in part on the land surrounding the features that was practicably available for sale during preparation of the HCP.

The Applicant's experienced, qualified consulting biologists are of the view that all of the on-site and off-site karst preserves are sufficient, with proper management, to sustain populations of the Covered Species indefinitely.

²⁸ According to the Findings and Recommendations on the Issuance of an Incidental Take Permit issued by the FWS, the *Mixojapyx* species found in two of the La Cantera caves are not listed as endangered or threatened species and have no legal protection under the Act, and FWS cannot require La Cantera to protect them.

²⁹ In a letter dated August 30, 2001, to FWS, SWCA Environmental Consultant provided additional comments to a August 12, 2001, letter from Mr. Veni. SWCA explains:

[I]t is important to put the potential adverse impacts of the La Cantera project in perspective. La Cantera has three small vertical caves that will be potentially impacted by the development. La Cantera Cave Nos. 1 and 2 will be protected in perpetuity, each within 1-acre preserves.

There are no quantitative data available to indicate that the two listed species found within caves Nos. 1 and 2 will perish within the 1 acre preserves, or the 60 ft. void that will remain connected to the underground karst system of Cave No. 3. However, the Service believes that a minimum of 69 acres is the minimum ideal preserve size to preclude any long-term impacts to the cave ecosystems. Yet, we believe that there is no established quantitative scientific basis for this number. Rather than engage in

difference of opinion, the FWS was also provided with information that even if the 100-acres would provide significant, long-term protection for the species, the cost to La Cantera would "make the project infeasible because the 100 acres was extremely valuable land."³⁰ Based on this record, FWS contends the mitigation and minimization measures imposed are of significant benefit to the endangered species.

In response to plaintiff's contention that the FWS simply acquiesced to La Cantera's demands, the FWS points to the fact that originally, La Cantera argued that the one-acre setbacks would provide adequate mitigation. The FWS not only rejected this proposal as inadequate but also La Cantera's proposal for three small preserves containing a total of 34 acres and 4 caves,³¹ and its proposal of four

a protracted debate with the Service over these issues, La Cantera chose to provide the mitigation suggested by the Service. The purpose of the monitoring that will take place within the preserves of Cave Nos. 1 and 2, is specifically designed to evaluate the long-term impacts of the relatively small preserve systems for these cave ecosystems.

³⁰ In the Environmental Assessment/Habitat Conservation Plan dated October 11, 2001, the Reduced Development Alternative discussed that this alternative would greatly reduce the economic value for the current landowners due to the loss of approximately 100 acres of otherwise developable land. Figure 6 which is referenced in this Alternative shows that the 100 acres is in the area designed as the Retail Sub-Area and would encompass almost half of that area. Also in the suggested response to letter comments received by the FWS, the following, in part, was in response to the comment that the preferred alternative does not minimize and mitigate take "to the maximum extent practicable":

The commenters seem to suggest that an alternative should be selected that calls for no take, as that is the least amount of take possible. In this case, such an alternative is not practicable. Alternative 2 [Plaintiff's Reduced Development Alternative], for example, would require the applicant to preserve 100 acres of prime commercial property to minimize take. That alternative is not practicable, as it would result in an enormous economic loss. The property in question is surrounded by highways, roads, an amusement park, and other existing development. Local development permits have been obtained, and utility service has already been established. The property was acquired, designed, and approved for development before the species in question were listed. Plainly, nothing could be more impracticable than to do as the commenters suggest and put a fence around this prime and locally important commercial property. Indeed, the losses associated with doing so would not be felt solely by the applicant, but also by taxing jurisdictions, utility providers, and their respective constituents.

AR 1, A35, 0475.

The Courts notes that the fact La Cantera was willing to spend and in fact did spend approximately \$4 million dollars in order to be able to use 98 acres seems to support its assertion that this land was extremely valuable.

³¹ This proposal was dated August 30, 2000, and noted that "[a]lthough none of the karst invertebrate species known from Bexar County are currently listed as endangered under the Federal Endangered Species Act, the listing of nine of

preserves containing 109 acres and 7 caves.³² FWS states it also rejected La Cantera's proposal to add a 70 acre preserve which included the Hills and Dales Pit but drop the Madla cave. La Cantera then amended its proposal to include the Madla Cave, and the FWS found this proposal satisfactory.³³ The

these species is likely to occur during the development time line of the La Cantera Property [and did occur in December of 2000]." The proposal was intended to be a "pro-active step toward expediting the resolution of endangered karst invertebrate issues not only on the subject property but also in Bexar County as a whole." AR 3, B1077, 1849. The proposal entailed the "establishment, in perpetuity, of two cave preserves on the La Cantera Property plus the establishment, thorough outright purchase or negotiated conservation easement, of three mitigation preserves...contain[ing] a total of four caves." The caves under this proposal were the Helotes Hilltop, Helotes Blowhole, Madla's, and John Wagner Ranch Cave #3.

³² This proposal was dated October 16, 2000, (again prior to the species making the Endangered Species List), and consisted of the 4-acre John Wagner Ranch Cave #3 Preserve containing the John Wagner Ranch Cave, the 5-acre Madla's Cave Preserve containing Madla's Cave, the 25-acre Helotes Hilltop/Helotes Blowhole Preserve containing the Helotes Hilltop Cave and the Helotes Blowhole Cave, and the 74.6 acre Canyon Ranch Cave Preserve containing the Scenic Overlook Cave, the Canyon Ranch Pit, and Fat Man's Nightmare Cave.

³³ In a letter dated February 27, 2001, to Mr. Glen E. Mitts of the La Cantera Development Company, the FWS advised:

This letter responds to your request to evaluate your proposed mitigation package in anticipation of your submittal of a 10(a)(1)(B) permit application. We appreciate the significant effort that you have put into developing this mitigation package and look forward to the conservation benefits it will provide....As you know, the Mitigation Proposal, as modified by the Response Letter, grew out of extensive discussions among the Service and you and your consulting team over the last several months. In essence your Mitigation Proposal includes:

1. Preservation (which will also include management, adaptive management, and monitoring) of:
 - a 1-acre around each of La Cantera caves 1 and 2,
 - an approximately 4-acre tract of land containing John Wagner Ranch Cave #3,
 - Hills and Dales Pit within a 70 acre preserve,
 - Helotes Hilltop and Blowhole caves within approximately 25 preserved acres
 - a 74.64-acre Canyon Ranch Tract (with three known caves), and
 - a 5-acre area around Madla's Cave to be preserved through a conservation easement (this is being added back into the mitigation package per your February 27, 2001 phone conversation with Alisa Shull).
2. An outreach plan with the goal of raising awareness, understanding, and appreciation for these animals. The material will be produced by professional public relations people who know the best way to accomplish this goal: what media work best and how to word the information, particularly the technical information so it's interesting and understandable by a non-technical audience. The materials should be designed for a variety of age groups (adults and children) and materials that would be useful for conveying to landowners who have or may have the species and be in a position to affect long-term conservation of these species.
3. Paper printouts of northern Bexar County to include the following layers: karst fauna regions, karst zones, updated plats, and land use types. These printouts will be supplied 3 times per year for 3 years

cost to La Cantera to acquire the 179 off-site preserves for this proposal is approximately \$4 million. Thus, FWS believes the record fully supports that their finding, that the HCP contains measures that, to the maximum extent practicable, avoids, minimizes, and mitigates the impacts of La Cantera's take of the affected species, was not arbitrary or capricious. The Court agrees.

As set forth in Sierra Club v. Babbitt, 15 F. Supp. 2d 1274, 1279 (S.D. Ala. 1998), this Court, in applying the arbitrary and capricious standard of review, may not:

set aside an agency action that is rational, based on consideration of relevant factors and within the scope of the authority delegated to the agency by the statute, " ... the agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found the choice made.'"

(quoting Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983)).

Here as in Sierra Club, the FWS issued an incidental take permit and the dispute there, as is the case here, focused on whether the developer adequately minimized and mitigated the taking impacts to the "maximum extent practicable." Id. The plaintiffs argued the levels of off site mitigation funding contained in the HCPs incorporated into the ITPs were inadequate and could not be supported by any rational basis in the Administrative Record.³⁴ Id. In making their argument, the plaintiffs maintained the agency's determination of the mitigation funding amounts was arbitrary and capricious. The court

from permit issuance.

4. Funding of a genetics study by Dr. Marshall Hedin (up to \$15,000 towards definitive species level identification of immature specimens of *Cicurina* sp.

It is our opinion that the Mitigation Proposal, as modified by the Response Letter and your 2-27-01 phone conversation, and outlined above adequately satisfies the Service's criteria for take and mitigation for *Cicurina madla* and *Rhadine exilis* from La Cantera caves 1, 2, and 3, and provides a sound basis to develop an Environmental Assessment/Habitat Conservation Plan (EA/HCP).

³⁴ One ITP provided that there "be \$60,000 collected from the developer for offsite, mitigation 'to acquire property of quantity and quality sufficient to compensate for and minimize unavoidable impacts of the project area'," and the other ITP provided there "be \$150,000 collected from the developer for offsite mitigation." Sierra Club, 15 F. Supp. 2d at 1280.

noted the "lack of any analysis in the Administrative Record concerning whether the amount or level of offsite mitigation funding is to the maximum extent practicable supports the plaintiff's contention." Id. at 1280-81. The court also noted that the field office had expressed concerns over the inadequacy of the level of funding for offsite mitigation in one of the HCPs and ITPs and even though the field office failed to voice similar concerns with respect to the second HCP and ITP, the record nevertheless showed "that the FWS failed to support the level or amount of offsite mitigation funding with a clearly articulated analysis demonstrating whether the amount or level of funding is rationally based on the relevant facts." Id. at 1281. In response, the defendants asserted that the field office's concerns had been previously addressed prior to the final draft of the Biological Opinion, when it was told that the "ITP would state our use of these additional funds" for offsite mitigation in addition to the \$150,000, but the court found that "such a conclusory statement [did] little to ameliorate the lack of a sufficient basis upon which the FWS can demonstrate that the mitigation measures are to the maximum extent practicable." Id. The court found the statement did not increase the mitigation measures nor did it provide the "necessary analysis to demonstrate that the existing level of mitigation is sufficient." The court noted that FWS:

simply ignored the clearly expressed concerns of the experts Congress intended the agency to rely upon in making such discretionary decisions. This is further illustrated by the complete lack of subsequent consideration or explanation of the amount of mitigation funding in the final BO, HCP, and ITP. As the Court finds that there is no sufficient basis in the Administrative Record to support the amount of offsite mitigation funding, the issuance of the ITPs was arbitrary and capricious.

Id. Here, however, the Court has found no evidence nor has plaintiff pointed to any, of a field service office expressing concern over the inadequacy of the minimization and mitigation measures set forth

by La Cantera in their HCP. The Court is aware of Dr. Veni's³⁵ concerns but under his complete analysis, even the 100 acres was insufficient. The FWS also had before it opinions/responses contrary to those of Dr. Veni. Moreover, plaintiff's argument concerns an alternative in the plan which La Cantera did not seek to implement instead of an actual portion of the plan at issue in Sierra Club. Although plaintiff contends FWS did not consider this alternative, there is no language in the Sierra Club opinion requiring FWS to consider all alternatives set forth in a HCP. The court instead took issue with FWS's failure to explain or provide any analysis of "whether the amount of offsite mitigation required is 'to the maximum extent practicable.'" Id. at 1281. The court noted that "the Administrative Record must contain **some** analysis of why the level or amount **selected** is appropriate for the particular project at issue." Id. Even though the plaintiff does not agree with its analysis, FWS did provide an explanation and analysis of why the selected alternative was appropriate for the La Cantera project. Moreover, the record also shows FWS found the plaintiff's chosen alternative not practicable due in large part to the financial impact it would have on the development of the property and concerns as to the long-term preservation of the species due to the proximity of this area to major highways. Plaintiff, here, as in Loggerhead Turtle v. County Council, 120 F. Supp. 2d 1005, 1021-22 (M.D. Fla. 2000), must:

bear in mind that an "agency's decision need not be ideal, so long as it is not arbitrary or capricious, and so long as the agency gave at least minimal consideration to relevant facts contained in the record."

³⁵ According to footnote 22 in FWS's motion, Dr. Veni works for:

the private sector assisting clients working with FWS to avoid or mitigate the impacts of actions involving karst formations. While the FWS also uses Dr. Veni as a consultant, he is only used as an expert hydrogeologist. As Plaintiff admits, Dr. Veni was not acting as a consultant to the FWS when he submitted his comments.

The Service is not required to select all available measures or even the best measures. Rather, it must select measures that minimize and mitigate impacts to the maximum extent practicable.

The record supports the decision in this case even though it might not be plaintiff's "ideal" or even "the best" measure.

In another case in which the court found the FWS acted in an arbitrary and capricious manner, the plaintiffs challenged, as plaintiff does in this case, the failure by FWS to consider "any alternatives involving greater mitigation measures." National Wildlife Fed'n v. Babbitt, 128 F. Supp. 2d 1274, 1291 (E.D. Cal. 2000). In fact, none of the three alternative HCP strategies involved additional mitigation. Relying on Sierra Club v. Babbitt, 15 F. Supp. 2d 1274 (S.D. Ala. 1998) (discussed above), the court noted that the phrase "maximum extent practicable" required the FWS to consider an alternative involving greater mitigation. In this context, the court stated the "record should provide some basis for concluding, not just that the chosen mitigation fee and land preservation ratio are practicable, but that a higher fee and ratio would be impracticable." Id. at 1292. The court found the record "nearly non-existent" on whether the HCP provided the maximum practicable mitigation fee and reserve land ratio and explained:

There are conclusory statements in the record to the effect that "the common and local wisdom is that a fee in the range from \$2000 to \$2500 per acre is practicable," but the record is devoid of evidence that the Service subjected this assumption to any examination or attempted to determine if a higher base fee would also be practicable. There is no economic analysis, discussion of mitigation fees in similar plans and circumstances, or even representations from particular landowners.

The plain language of the statutory provision requiring that the Plan minimize and mitigate its effects "to the maximum extent practicable" is not satisfied by a fee set, as here, at the minimum amount necessary to meet the minimum biological necessities of the covered species. The record lacks adequate evidence and analysis of whether a fee higher than that initially proposed by the working group would be economically practicable.

Id. at 1292-93 (citations to record omitted). Here, however, the record reflects that the reduced development alternative would in fact have an economic impact. As set forth in FWS Findings, some commentors requested the FWS to choose the environmentally preferred/Reduced Development Alternative 2 over the Preferred Alternative, but FWS stated it had a non-discretionary duty to issue the incidental take permit where the applicant adequately addresses the permit issuance criteria. As set forth the in EA/HCP, Alternative 2 did not include the issuance of a permit under section 10 of the ESA and did not provide for the removal or realignment of existing roadways, which could cause a potential long-term preservation problem, because that would be cost prohibitive.³⁶ In addition, this alternative would not provide off-site mitigation, and the off-site caves sought to be protected under the Preferred Alternative would not receive active long-term management for the listed species.³⁷ Again, as previously set forth, FWS specifically noted this alternative would "provide greatly reduced

³⁶ The Biological Opinion in this case provided:

Due to the proximity of all three caves to existing roadways, these features do not provide ideal conditions for long-term protection of the endangered invertebrates, and are considered by the Service to be medium quality.

In addition, two of the off-site caves were found by the Service to be high quality caves and one cave was found to be of medium quality with the potential to improve quality. All three of the La Cantera caves were found to be of medium quality.

³⁷ As set forth in the Biological Opinion for La Cantera Development Company 10(a)(1)(B) Permit, the beneficial effects of the Preferred Alternative were stated as:

The acquisition and permanent preservation of 8 caves within a total of 179 acres (John Wagner Cave #3, Hills and Dales Pit, Helotes Hilltop, Helotes Blowhole Cave, Scenic Overlook Cave, Canyon Ranch Pit, Fat Man's Nightmare Cave, and Madla's Cave), not only provide some protection of *R. exilis* and *C. madla*, but also provides conservation opportunities for other listed invertebrates, including *Rhadine infernalis* and *Batrisodes venyivi*, as well as at least two new undescribed troglobitic spider species, a *Neoleptoneta* n.s. and a *Texella* n.s. The proposed mitigation caves also include the type localities of four of the nine Bexar County listed invertebrates (Table 1). Additionally, the educational outreach materials and research efforts will continue to contribute to our knowledge and understanding, as well as the public's, of these species.

economic value for the current landowners by virtue of the loss of approximately 100 acres of otherwise developable land" and La Cantera chose not to pursue this option. Given that FWS cannot require an applicant to choose a particular alternative, the record as set forth herein supports the finding that La Cantera met the issuance criteria for an incidental take permit, and the FWS did provide some basis for not choosing the Reduced Development Alternative, the Court cannot find FWS's actions arbitrary and capricious.

**2. Did the FWS Arbitrarily Find the Development by La Cantera
Would Not Appreciably Reduce the Likelihood of Survival and Recovery of
Rhadine exilis, *Rhadine infernalis*, and *Cicurina madla*?**

Plaintiff contends the HCP violates the mandate of section 1539(a)(2)(B)(iv) of the Endangered Species Act. This section provides the Secretary shall issue the permit if "after opportunity for public comment, with respect to a permit application and the related conservation plan" the Secretary finds, among other listed factors, that "the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild." 16 U.S.C. § 1539(a)(2)(B)(iv). Plaintiff states it is not arguing that the HCP must enhance recovery but merely that it must not "appreciably reduce" recovery. Because under plaintiff's analysis the HCP does not appreciably reduce recovery, the HCP must be set aside and remanded to the FWS.

In support of its argument, plaintiff states the term "conservation" as defined in the ESA means "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer necessary." 16 U.S.C. § 1532(3). According to a recent 5th Circuit decision, "'conservation' speaks to the recovery of a threatened or endangered species." Sierra Club v. United States Fish & Wildlife Serv., 245 F.3d 434, 442 (5th Cir. 2001). Relying on the comments of Dr. Veni, plaintiff argues the HCP here will reduce the likelihood of recovery of the species.

In a letter to Christina Longacre of the FWS dated August 12, 2001, Dr. Veni opines that the proposed HCP did not meet recovery plan standards. Dr. Veni wrote:

A recovery plan does not yet exist for the Bexar County karst invertebrates: However, my discussions with USFWS staff indicate that until a plan is established the USFWS would follow the methodology of the recovery plan for the related endangered Austin karst invertebrates (O'Donnell, Elliott, and Stanford 1994). The key element to that plan is that at least "three karst fauna areas [KFAs] within each karst fauna region [KFR] in each species range should be protected in perpetuity." The three La Cantera caves are located in the UTSA KFR (per Veni and Associates, 1994), but only two of the five proposed preserves are within that area. In my dealings with USFWS on behalf of my clients who have looked for mitigation properties for their impacts, USFWS has insisted on finding caves within the same KFR. The Service should be consistent and do the same here.³⁸

Dr. Veni also wrote about the chosen alternative wherein he stated:

1) Alternative 1, the "Proposed Alternative" should be rejected. It does not come close to meeting the standards of the Austin karst invertebrate recovery plan. Further, it does not protect the caves' ecosystem, including *Mixojapyx*, and thus does not preserve the biological integrity of the UTSA KFR.

Plaintiff explains the only response by FWS to Dr. Veni's comments was that normally priority should be given to acquiring mitigation in the same karst region but here, La Cantera was limited by what land

³⁸ The rest of Dr. Veni's comments under this heading read as follows:

It is crucial to note that so far there are no protected KFAs within the UTSA KFR, so their establishment is vital (the proposed Canyon Ranch preserve is in the Government Canyon KFR where some species protection is available in Government Canyon State Natural Area). This in itself should result in the rejection of the proposed HCP since O'Donnell, Elliott, and Stanford (1994) state in the recovery plan for the related Austin species that "if fewer than three karst fauna areas exist within a given karst fauna region of a given species' range, than all karst fauna areas within that region should be protected."

This standard was established for the endangered cave ecosystems and not just the individually listed species. In doing so, it prevents the need to list other species that may be even rarer than those listed. An excellent example of this occurs at La Cantera Cave No. 1 and La Cantera Cave No. 2. Both caves contain the rare troglobitic earwig-like *Mixojapyx* species. It is known from only four other caves in Bexar County, only one cave each from Comal, Kimble, Menard, and Travis counties, and is probably a complex of related but separate species (Veni and Reddell, 1999). The occurrence of *Mixojapyx* in the La Cantera caves is their only known occurrence in the UTSA KFR and none of the KFAs proposed in the HCP are known to contain that rare species of concern.

was practicably available for sale during the preparation of the HCP and therefore had to look outside the region for other high priority locations for the species.³⁹ Plaintiff contends the fact that La Cantera is the only place in the region where the cave species could be protected, FWS should have protected this area, not written it off. Plaintiff claims Dr. Veni specifically made this point, but FWS did not respond.⁴⁰ Because FWS chose to allow the destruction of the La Cantera caves despite their own standards which provide that recovery requires their protection, FWS acted in an arbitrary and capricious manner. See Sierra Club v. Babbitt, 15 F. Supp. 2d 1274, 1282 (S.D. Ala. 1998) (despite explicit directive in FWS Handbook "not to apply inconsistent mitigation policies and to provide good reasons for or to explain clearly any inconsistent applications, the agency never provided 'good

³⁹ FWS responded to Dr. Veni's comments in its Findings and Recommendations on Issuance of an Incidental Take Permit, as follows:

We believe, commensurate with the amount of take proposed (reduction of non-developed area around La Cantera caves #1 and #2 to one acre each and filling of Cave #3), the Applicant has adequately mitigated to the maximum extent practicable not only through preservation of 179 acres and 8 caves, but also with long-term management and monitoring of those caves, and certain outreach and research projects that will further species protection and conservation. The off-site mitigation preserves contain four caves total with *R. exilis*, in three preserves (two in the UTSA region and one in the Helotes region); eight total caves with *C. madla*, in five preserves (two in the UTSA region, two in the Helotes region, and one in the Government Canyon region); and six total caves for *R. infernalis*, in four preserves (one in the UTSA region, two in the Helotes region, and one in the Government Canyon region). The *C. madla* locations include three of the eight confirmed locations for this species.

In addition, adaptive management provisions are included in the HCP to allow alteration of management practices in light of subsequently developed biological information. As explained in Section 4.1 of the EA/HCP, while we refer to the buffers around La Cantera caves #1 and #2 as on-site setbacks the Applicant refers to them as preserves in the HCP. We do not believe 1 acre each is sufficient for long-term viability for cave species, therefore, additional cave preserves were necessary to mitigate the impacts to these caves.

Normally priority should be given to acquiring mitigation in the same karst region where impacts occur unless recovery criteria have been met in that region. however, the Applicant was limited by what land was practicably available for sale during preparation of the HCP (Robert Kuhn, November 25, 2000, and Guy B. Seay, December 8, 2000; sworn affidavits provided to us by La Cantera). Therefore, the Applicant had to look outside of the region for other high priority locations for the species, some of which provide protection to other endangered karst invertebrates (for example: *Batrisodes venyivi* in Helotes Hilltop Cave). It should be noted that all off-site preserve caves are considered to be of equal or greater quality than the La Cantera caves being impacted by the proposed development.

⁴⁰ For complete text of Dr. Veni's comment referenced by plaintiff, see paragraph 1 of footnote 38.

reasons' for or 'clearly explained' why the FWS applied inconsistent mitigation policies ... in the same geographic area"). Plaintiff believes this point is made stronger by the fact that not only were the recovery standards relaxed for this HCP but the normal permit requirements that applicants stop working pending investigation of new found sites (as is found in the Buttercup permit) were omitted due to pressure by La Cantera to avoid making that information part of the record and being shut down.

Again returning to Dr. Veni's comments, plaintiff contends that not only do the locations of the off-site preserve sites fail to meet the recovery standards but the quality of these sites do as well. In his August 12 comment letter, Dr. Veni wrote:

In recent meeting I've had with USFWS staff, they have presented a mitigation matrix where the quality of a cave's habitat is compared to the proposed impact to determine the number of caves needed for adequate mitigation. The proposed HCP will result in major impacts to La Cantera Cave No. 1 and La Cantera Cave No. 2 and total impact to La Cantera Cave No. 3, which are probably moderate quality habitats due to the nearby roads. My understanding of the mitigation matrix was that caves of moderate quality that would be subjected to major or total impact would require 2-3 caves in the same KFR in exchange for mitigation. This standard is not met by the number of caves offered in the UTSA KFR nor in their quality. In fact, not even a 1:1 mitigation of caves exists for the UTSA KFR.⁴¹

⁴¹ With respect to the proposed mitigation caves, Dr Veni wrote:

Hills and Dales Pit is located in the UTSA KFR within a proposed 70 acre preserve. However, the track is irregular in shape where edge effects will be heightened, the cave is relatively near one edge and drains some runoff from the road and uphill homes, and the quality of the cave's habitat is low due to flooding and related excess nutrient input. Hills and Dales Pit is probably of similar biological value as La Cantera Cave No. 2 or 3, but not No. 1 and certainly not all three caves.

The preserve proposed for John Wagner Ranch Cave No. 3 is highly inadequate. The proposed 4-acre preserve, also in the UTSA KFR, does not encompass the entire drainage area for the cave and does not adequately protect from edge effects from nearby existing or future development. Fire ants are a frequent problem and other invasive plant and animal species are present within the proposed preserve. Visitors have regularly and heavily impacted the cave; its large entrance serves as a frequent party site where trash is disposed and campfires are burned. No gate or prevention of these activities is proposed in the HCP.

While the habitat at John Wagner Ranch Cave No. 3 seems richer with nine known troglobites (the three La Cantera caves respectively have six, eight, and five troglobites), its high number is the result of numerous collections over the past 39 years and does not reflect the current low quality of the habitat. The cave should be protected, but it has too many problems of its own to serve as mitigation unless a

Plaintiff states FWS merely responded to these comments with the conclusory statement contained in the HCP that the off-sites cave preserves are considered to be of equal or greater quality than the La Cantera caves, but FWS failed to say who considered this to be true. Because FWS has relied on Dr. Veni's opinion for listing determinations and for this HCP, plaintiff believes the "who" of this contrary opinion is relevant. Plaintiff also finds telling the fact the FWS did not consider smaller 4 and 5 acre preserves to be adequate.⁴²

Even more telling is the fact that FWS did not respond to Dr. Veni's comment that the EA/HCP is based on data that is simply wrong.⁴³ Based on this assertion, plaintiff claims the decision of the

larger and effective preserve can be established there and the habitat is restored.

⁴² Support for this assertion comes from a record of a telephone conversation FWS held with Gene Dawson on September 28, 2000, in which FWS representatives stated:

We have reviewed the karst information a little further and have decided that we should not take any preserve for mitigation that is not considered viable in the long-term. This basically equates to a high quality preserve. Therefore, we would not be able to accept the proposed 5 ac preserves. Mitigation needs to meet our preserve design recommendation.

We agree with you that the La Cantera caves are medium. But with the clarification of definitions the mitigation needs are different. LCC #1 and #2 would be severe impacts to medium quality caves, requiring one long-term viable cave for each #1 and #2. LCC #3 would be total impacts [sic] to a medium quality cave requiring 2 long-term viable caves. Therefore, a total of 4 long-term viable preserves are needed for each species. This assumes that there are 3 *Cicurina madla* caves left in the region that will meet long-term needs.

Gene didn't feel like Wagner, Madla, or Helotes would meet these needs. If they did they would require a lot of work. We explained that the benefit of these 3 caves was the fact that *C. madla* and *R. exilis* were all co-located within these caves. If they could get them to all meet long-term viability they would be done with mitigation. If not, they would potentially have to find more caves to meet the requirements.

⁴³ Again, returning to Dr. Veni's August 12 comment letter, plaintiff points to the section in which Dr. Veni indicates the technical data for the proposed HCP questionable. Dr. Veni wrote:

One major concern about the technical information supplied to USFWS is a statement in the Service's assessment of the HCP that all but 3 of over 400 potential karst features found on the La Cantera property were "considered insignificant with regard to karst invertebrate habitat" by the people assessing them. As you know, I have done considerable study of karst features nearby on Camp Bullis. In an area of comparable size and geology, my team has also found more than 400 potential karst features, but our study revealed 23 caves with endangered species (Veni and Reddell, 1999). Additionally, I can identify at least 30 unexcavated karst features within that area that if excavated will almost certainly lead

FWS must be set aside because it was based on inaccurate information and/or fails to comply with the ESA's mandate that decisions must be based on the best scientific and commercial data available. Plaintiff also takes issue and finds "even more disturbing than lack of response to this [simply wrong] issue" that the Service was aware of features that could contain endangered species but failed to require necessary follow-up because of pressure from La Cantera. In addition to the failure to require "normal survey/report/stop-work conditions" in the permit, plaintiff claims the parties were aware of Cave 184 yet never included or mentioned this cave in the EA/HCP.⁴⁴ Thus, because as set forth above, the HCP contains major flaws in terms of technical data, procedures employed, and conclusions reached, plaintiff contends it violates the ESA's mandate that the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. As set forth by the FWS, section 10(a)(2)(B)(iv) of the ESA requires a finding by the FWS, before it may issue an incidental take permit, that the incidental take will not "appreciably reduce the likelihood of survival and recovery of the species in the wild." The FWS made that finding here.⁴⁵ FWS argues that in the Biological Opinion,

to caves and possibly endangered species habitat. Based on my experience and detailed knowledge of the Bexar County karst, there is no way that the "3 of over 400" number can be correct. It must reflect work that was done incompetently or dishonestly. It is far more likely that the correct number of potential endangered species localities at La Cantera is underestimated by at least a factor of ten. If USFWS approves the proposed HCP, it will almost certainly result in far greater karst habitat degradation at La Cantera than is suggested by the HCP.

⁴⁴ In plaintiff's response to defendants' motions for summary judgment, plaintiff admits the following:

Regarding Cave 184, the Center admits that it missed the document in the record reflecting completion of further surveys as requested by the Service. The Center it withdraws its argument on this point.

⁴⁵ The Findings and Recommendations on Issuance of an Incidental Take Permit issued by the FWS herein provides:

The taking will not appreciably reduce the likelihood that the species will survive and recover in the wild.

The Act's legislative history establishes the intent of Congress that issuance criteria be based on a finding of "not likely to jeopardize" under section 7(a)(2) [see 50 CFR 402.02]. As a result, approval of the Applicant's permit application has also been reviewed by the Service under section 7 of the Act. In the Biological Opinion...the Service concluded that issuance of the permit to the Applicant will not

it made the determination, as required by section 7(a)(2) of the ESA, that the issuance of the ITP is “not likely to jeopardize the continued existence” of the endangered species covered by the permit. This so-called “jeopardy” standard has been explained to mean “to engage in an action that reasonably would be expected ... to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild.” 50 C.F.R. § 402.02. Thus, FWS argues, the jeopardy standard for a § 7(a)(2) finding is essentially the same as the standard for issuing an incidental take permit pursuant to § 10(a)(2)(B)(iv). In fact, this is exactly what Congress intended.⁴⁶ Despite this clear Congressional expression, plaintiff appears to argue, based on a recent 5th Circuit opinion, that merely avoiding jeopardy is not the same as ensuring the recovery/conservation of the species as required by the ESA. As pointed out by Dr. Veni in his August 12 comments, the HCP at issue here will not “reduce the likelihood of recovery of the species.”

At issue in Sierra Club v. United States Fish & Wildlife Serv., 245 F.3d 434 (5th Cir. 2001), was the refusal of the FWS to designate critical habitat for the Gulf sturgeon. The court held: “(1)

likely jeopardize the continued existence of the affected species.

Likewise, the FWS concluded in its Biological Opinion:

After reviewing the current status of *Rhadine exilis*, *Rhadine infernalis*, *Cicurina madla*, the environmental baseline for the action area, the effects of the proposed project, and the cumulative effects, it is the Service's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of *Rhadine exilis*, *Rhadine infernalis*, or *Cicurina madla*. No critical habitat has been designated for these species, therefore, none will be affected.

⁴⁶ Congress explained:

The Secretary will base his determination as to whether or not to grant the [ITP] , in part, by using the same standard as found in Section 7(a)(2) of the Act, as defined by Interior Department Regulations, that is, whether the taking will appreciably reduce the likelihood of the survival and recovery of the species in the wild. Use of the regulatory language adopted by the Secretary of the Interior to implement section 7(a)(2) rather than the language of the provision itself eliminates the implication that other permits issued under Section 10 do not require consultation and biological opinions issued pursuant to section 7.

H.R. CONF REP. NO. 97-835, at 29-30 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2860, 2870-71.

Regulation defining circumstances under which jeopardy consultation is required was invalid as conflicting with Endangered Species Act (ESA); and (2) agencies' reliance on availability of jeopardy consultation when deciding that it would not be prudent to designate critical habitat for threatened Gulf sturgeon was error where made in reliance upon invalid regulation." Id. Before finding the regulation invalid, the court provided a background into the ESA as follows:

In 1973, Congress enacted the ESA as a "means whereby the ecosystems upon which endangered species and threatened species depend may be conserved," and "to provide a program for the conservation of such endangered species and threatened species." The ESA defines "conservation" as "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided [by the ESA] are no longer necessary." As the district court observed, the objective of the ESA is to enable listed species not merely to survive, but to recover from their endangered or threatened status.

To achieve this objection, Congress required the Secretary of the Interior to designate a "critical habitat" for all listed species. The ESA defined occupied critical habitat as "the specific areas within the geographic area occupied by the species, at the time it is listed ... on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection."

Critical habitat designation primarily benefits listed species through the ESA's consultation mechanism. Section 7(a)(2) of the statute requires federal agencies to consult with the Secretary to "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 that species's critical habitat. Thus, regardless of whether critical habitat is designated, an agency must consult with the Secretary where an action will "jeopardize the continued existence" of a species. If critical habitat has been designated [which has not been done with respect to the beetles and spider at issue here], the statute imposes an additional consultation requirement where an action will result in the "destruction or adverse modification" of critical habitat.

Although the ESA does not elaborate on the two consultation scenarios discussed above, 50 C.F.R. § 402.02 defines each in terms of the effects of agency action on both the survival and recovery of the species. Thus, to "jeopardize the continued existence of" a species is "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of *both the survival and recovery* of a listed species in the wild." This "jeopardy standard" is similar to the regulation's

description of “destruction or adverse modification” of critical habitat. The regulation defines “destruction or adverse modification” as a “direct or indirect alteration that appreciably diminishes the value of critical habitat for *both the survival and recovery* of a listed species.”

Id. at 438-39. Before rejecting as unpersuasive Sierra Club’s first argument that the “regulation defines the jeopardy and destruction/adverse modification standards in terms of both survival and recovery” and the regulation “consequently equates these two consultation standards,” the court noted that because it was reviewing a facial challenge to a regulation, its review was not under the Administrative Procedure Act (as is the case here) but rather pursuant to Chevron U.S.A., Inc. v. Natural Res. Def. Council, 467 U.S. 837 (1984). Id. at 440. Therefore, the court had to first determine whether Congress had directly spoken to the “precise question at issue,” with reversal in that instance warranted “only where an agency interpretation is contrary to ‘clear congressional intent.’” Id. at 440-41. If, however, the statute is silent or ambiguous, the court then determines if the agency’s interpretation is “a permissible construction of the statute.” Id. at 441. An agency’s construction is reversed only if it is “arbitrary, capricious or manifestly contrary to the statute.” Id. This review differs however from the review this Court must apply here in that review under the APA focuses on the “reasonableness of the agency’s decision-making process” as compared with the “reasonableness of [the agency’s] interpretation.” Id. at n.37 (citing Texas Office of Pub. Util. Counsel v. FCC, 183 F.3d 393, 410 (5th Cir. 1999)).

In its second argument, and the argument found by the 5th Circuit to have merit, the Sierra Club argued that the regulation “sets the bar too high” for the destruction/adverse modification standard. Id. Sierra Club argued that the requirement that the action must affect both survival and recovery conflicted with the ESA which requires “consultation where an action affects recovery alone; it is not necessary for an action to affect the survival of a species.” Id. The court agreed and explained:

The ESA defines “critical habitat” as areas which are “essential to the conservation” of listed species. “Conservation” is a much broader concept than mere survival. The ESA’s definition of “conservation” speaks to the recovery of a threatened or endangered species. Indeed in a different section of the ESA, the statute distinguishes between “conservation” and “survival.” Requiring consultation only where an action affects the value of critical habitat to both the recovery *and* survival of a species imposes a higher threshold than the statutory language permits.

Id. at 441-42 (footnotes/citations omitted). The legislative history also supports the court’s analysis because critical habitat had been defined in a 1978 regulation in terms of a loss of air, land or water area, that would “appreciably decrease the likelihood of the *survival and recovery* of a listed species,” and being aware of this regulatory approach, Congress in amending the ESA in 1978 chose to define critical habitat as it reads today in terms of conservation. Id. at 442. The court concluded the “Services’ definition of the destruction/adverse modification standard in terms of survival and recovery is consequently an attempt to revive an interpretation that was rejected by Congress.” Id. at 443. Based on the “manifest inconsistency between [the regulation] and Congress’s ‘unambiguously expressed intent’ in the ESA, [the court found] the regulation’s definition of the destruction/adverse modification standard to be facially invalid.” Id. at 443. Having so found, the court made the following comment:

We emphasize that our holding applies only to the definition of “destruction or adverse modification.” The remainder of 50 C.F.R. § 402.02—including the regulation’s definition of “jeopardize the continued existence of”—is unaffected by our ruling.

Id. at n.61. Thus, because plaintiff has not made a facial challenge to the regulation and because the 5th Circuit has not affected the regulation at issue herein concerning jeopardy to the continue existence of the ground beetles and spider, the Court will not impose upon the Service a higher “conservation” standard” but will review the agency’s decision under the traditional jeopardy standard. See National Wildlife Fed’n v. Babbitt, 128 F. Supp. 2d 1274, 1286 (E.D. Cal. 2000) (when Service considers

issuance of ITP, it must “engage in internal consultation under § 7, and may issue the permit only upon a finding that it ‘is not likely to jeopardize the continued existence of’ a protected species). As set forth by the court in National Wildlife:

Formal consultation typically culminates in the issuance of a biological opinion by the Service, which addresses whether jeopardy is likely to occur for any protected species, and if so, whether “reasonable and prudent alternatives” exist to avoid jeopardy. The Service must use “the best scientific and commercial data available” in making the required “no jeopardy” finding. In every respect except for this “best scientific and commercial data” requirement, the no jeopardy finding required by ESA § 7(a)(2) is identical to the survival finding required under § 10(a)(2)(B)(iv). Where the “available data” is imperfect, the Service is not obligated to supplement it or to defer issuance of its biological opinion until better information is available. Rather, “the Service must develop its biological opinion based upon the best scientific and commercial data available regardless of the ‘sufficiency’ of that data.”

Id. at 1286-87.

Plaintiff’s argument with respect to the inadequacy of the HCP is based on the comments of Dr. Veni. Plaintiff contends that in Dr. Veni’s August 12 comments, he pointed out the HCP will “reduce the likelihood of recovery of the species” and the proposed HCP does not meet the recovery plan standards established for related endangered Austin karst invertebrates. However, as pointed out by FWS, a section 10(a)(2)(B)(iv) permit does not require the HCP to meet any recovery plan goal. Support for this proposition comes from the FWS Handbook which provides:

Issuance of a section 10 permit must not “appreciably reduce” the likelihood of the survival *and recovery* of the species in the wild. Note that this does not explicitly *require* an HCP to recover listed species, or contribute to their recovery objectives outlined in a recovery plan. This reflects the fact that HCPs were designed by Congress to authorize incidental take, not to be mandatory recovery tools.

Handbook at 3-20 (emphasis in original). Based on this language, it does not appear to the Court that FWS acted in an arbitrary and capricious manner by not requiring the HCP in this case to meet the recovery plan standards, assuming as plaintiff asserts that it does not, set forth for other species of

listed karst invertebrates in Travis and Williamson counties. However, in order to provide a complete review, the Court will consider plaintiff's arguments.

As pointed out by FWS, Dr. Veni's comments, upon which plaintiff relies, were made on August 12, 2001, which was over 2 months before the Service issued its Biological Opinion on October 22, 2001. In addition, as previously set forth, this Court's review of an agency acting within its own sphere of expertise must be very deferential. Even if this Court were to find Dr. Veni's contrary views more persuasive, an agency is given discretion to rely on the reasonable opinions of its own qualified experts. This Court has not been presented with any evidence that Dr. Veni was for the purposes of the HCP at issue here one of FWS' experts.

In response to plaintiff's contention that the only response by FWS to Dr. Veni's assertion that the proposed HCP does not meet recovery plan standards because it does not follow the standard of three karst fauna areas within each karst fauna region being protected in perpetuity, was that normally priority should be given to acquiring mitigation in the same karst region where the impact occurs but the applicant was limited here by what land was practicably available for sale during the preparation of the HCP, FWS asserts that assuming that goal is appropriate, the La Cantera project would not interfere with the achievement of this goal because three karst fauna areas within the UTSA region will exist after the development. FWS states this point was made in the Biological Opinion as follows:

In evaluating the effects of the proposed action which are further described under Section 5.1 of the EA/HCP, we assessed the impact in relation to the conservation strategy outlined for similar species in the Endangered Karst Invertebrates Recovery Plan for Travis and Williamson counties, Texas (1994). Recovery criteria in that plan call for the preservation, in perpetuity, of three karst fauna areas (areas separated from each other hydrologically and geologically), if three exist, for each species within each karst region. In reviewing the status of the affected species, we determined that *three karst fauna areas within the UTSA karst region will exist after the proposed development*. These areas are summarized in Section III.a. of this BO.

AR 1, A4, 0025 (emphasis by FWS). In reply, plaintiff asserts the record shows the Biological Opinion is wrong because the Service admitted in its Findings and Recommendations on the issuance of the ITP the previous statement that the applicant was limited by the land practicably available and therefore the applicant had to look outside of the region for other high priority locations for the species. Additionally, the BO contains a table purporting to contain three sites for each species, but plaintiff contends a closer look reveals only 2 positive sites for *C. madla* are shown and although 3 sites are listed for *R. infernalis*, plaintiff contends one site does not fit the minimum 69-99 acre recovery standard because it only consists of 4 acres. Therefore, plaintiff contends it is the Findings and Recommendations that are correct not the Biological Opinion.

In support of its Biological Opinion, FWS explains that the positive identification of *C. madla* requires the finding of an adult female and without such a finding, the only identification that can be made with certainty is at the genus level.⁴⁷ FWS contends that based on the known distribution of the *Cicurina* listed species in Bexar County and the best scientific information available, FWS determined the spiders were likely to belong to *C. madla*.⁴⁸ As a result, La Cantera agreed to

⁴⁷ In fact, this appears to be one of the reasons the FWS suggested a genetic study as part of the mitigation package. FWS supports this assertion with reference to one of the provisions contained in the Outreach and Research Programs section of the EA/HCP which provides, in part:

[T]he Permittee will fund genetics studies by Dr. Marshall Hedin, San Diego State University. These studies will be designed to provide techniques for definitive species level identification of immature specimens of eyeless *Cicurina* spiders in Northern Bexar County.

Reference to the effect of this research program was also discussed by the FWS in the Biological Opinion in the section labeled "Analyses for effects and species' response to the proposed action" in which it was stated:

The Applicant has agreed to provide funds for developing definitive genetic techniques for identifying specimens of *Cicurina* (regardless of sex or age). The ability to quickly and definitively identify the species will greatly enhance conservation efforts for this species.

⁴⁸ In support of this statement, FWS turns to the EA/HCP discussion on this topic:

Veni and Associates (1994) and Reddell (1993) determined that only two of the now-listed species were

present in the UTSA region, *R. exilis* and *R. infernalis*. Subsequent studies have also documented occurrence of Madla Cave meshweaver in the UTSA karst region outside the Property (J. Cokendolpher, pers. Comm. 2000). Biota surveys conducted by SWCA in 1994, 1995, and 2000, in the three La Cantera caves resulted in the discovery of eyeless *Cicurina* spiders and *Rhadine exilis*, but no *Rhadine infernalis*.

Troglobitic Spider Identification

Obtaining identification of troglobitic spiders is difficult. Only a few arachnologists in the United States have the experience, reference collections, and literature available to recognize the families and genera of immature spiders from caves. Of these, probably only two individuals would attempt to identify specimens to species and then only if adults were present. Only one individual, Mr. James Cokendolpher, currently has the experience, comparative material, and unpublished manuscripts at hand to accurately identify troglobitic spiders from Texas caves. Once collected, additional difficulties are encountered in identifying specimens. Members of the genera *Cicurina* and *Neoleptoneta* have been divided into separate species based largely on differences in the morphology of the reproductive organs of adult specimens. Consequently, immature specimens are not currently identifiable to species level with certainty.

Genitalic features are considered diagnostic for species identifications because changes in the genitalia do not appear to be driven by Cave environmental factors. Other anatomical features are influenced by convergent evolution associated with troglomorphy (elongation of appendages, loss of pigment, reduction or loss of eyes, etc.) and are not considered good features to be used in differentiating troglobitic spider species.

Currently, only the genitalia of mature females of eyeless *Cicurina* spp. are known well enough to be used for species identifications. Adult males may be identifiable someday after an extensive study of their genitalia is undertaken. Only a few males are known of *Cicurina* and therefore efforts to associate them with females of the same species have not been accomplished. Collections in the great majority of caves (at least 27 caves) in Bexar County known to contain eyeless *Cicurina* spp. have failed to produce specimens identifiable to species level.

In situations where collectors have only been able to acquire immature specimens, captive culturing to raise specimens to adulthood has had limited success. Success in rearing troglobitic *Cicurina* spp. has been less than satisfactory with the best success having been achieved with specimens that were captured while only one or two molts away from adulthood. On May 23, July 26, and August 13, and 20, 2000, more than a dozen live eyeless *Cicurina* sp. were collected in La Cantera Cave #1. On September 13, 2000, two live eyeless *Cicurina* sp. samples were collected from La Cantera #3. These specimens were shipped and hand-delivered to James Cokendolpher to be reared for possible future species level identification. As of March 1, 2001, five of the specimens have survived, though none of them appears close to adulthood.

According to Cokendolpher (unpublished data) to date, eight eyeless species of *Cicurina* have been described from Bexar County and four are listed as endangered (*C. madla*, *C. venii*, *C. baronia*, and *C. vespera*). Of these, *C. madla* has the widest known distribution of endangered troglobitic spiders throughout the karst regions in Bexar County (Figure 4). It has been positively identified from eight caves (Christmas Cave, Headquarters Cave, Helotes Blowhole, Hills and Dales Pit, Lost Pothole, Madla Cave, Madla Drop Cave, and Robber's Cave). From these eight caves, only nine adult females have ever been collected. The known range of *C. madla* includes caves formed in both the Edwards and Glen Rose Limestone formations and stretches from Government Canyon State Natural Area (Government Canyon karst region) through the Helotes and UTSA karst regions east to Camp Bullis Military Reservation in the Stone Oak karst region. The species is not known from the Alamo Heights

mitigate for this species. In evaluating La Cantera's mitigation proposal at issue here, FWS claims they identified two karst areas in the UTSA karst region where a positive identification of *C. madla* had occurred and based on information received from an expert in invertebrate taxonomy, Dr. James Cokendolpher, confirmed that the species identified in the John Wagner Ranch Cave #3 was more likely

and Culebra Anticline karst regions.

Based on the known distributions of listed endangered *Cicurina* in Bexar County, and the best scientific information available to us today, the populations present in the La Cantera caves are likely to belong to *Cicurina madla* and are very unlikely to be *C. Barona*, *C. venii*, or *C. vespera*. *Cicurina baronia* is known only from Robber Baron Cave in the Alamo Heights karst region. *Cicurina venii* is known only from Bracken Bat Cave in the Culebra Anticline karst region. *Cicurina vespera* is known only from the Government Canyon Bat Cave in the Government Canyon karst region. The record of *C. vespera* from a cave 5 miles northeast of Helotes (USFWS 2000) was initially misidentified and that specimen has not been recognized as representing an undescribed new species (Cokendolpher, unpublished manuscript). The likelihood that the La Cantera Cave species is *C. madla* is further supported by the recent confirmation of *C. madla* in Hills and Dales Pit and Headquarters Cave on Camp Bullis. It is also possible that the La Cantera eyeless spiders of the genus *Cicurina* represent an as yet undescribed new species, but no definitive confirmation is expected prior to consideration of issuing a permit and possible construction on the Property. Therefore, all further reference to the identification of the Property's *Cicurina* sp. including the mitigation provided to the maximum extent practicable based on the best scientific information available and proposed as part of the Preferred Alternative, are based on the premise that the eyeless *Cicurina* spiders found in the three La Cantera caves belong to *C. madla*.

Appendix II-B of the EA/HCP provides:

Biological surveys of La Cantera Cave #1 were conducted by SWCA personnel including Dr. Kenneth Kingsley and Andy Grubbs on 21 and 29 April 1994, 23 May, 23 August, 4 and 26 September, and 2 October 1996. On 26 September an inventory of all fauna observed was made. During those surveys La Cantera Cave #1 yielded specimens of the now listed species *Rhadine exilis* and an eyeless troglobitic spider of the genus *Cicurina*. In an attempt to acquire adult *Cicurina* specimens which would allow for a species-level determination, additional biota collections were conducted by SWCA personnel including Kemble White, Hub Bechtol, and Dr. Steven Carothers on 23 May, 26 July, and 13 and 20 August 2000. In addition to preserved specimens, live specimens were captured during these studies to be reared to adulthood. Both preserved and live specimens were delivered to James Cokendolpher for identification. Of more than 40 eyeless specimens collected, none were adult. All specimens collected, including three live specimens, remain in the care of Mr. Cokendolpher. The live specimens may be identifiable to species level if they survive to adulthood. Based on the best scientific information available, the eyeless specimens most likely belong to *C. madla*.

Dr. Cokendolpher also responded to an e-mail from the FWS concerning these spiders in part as follows:

I have examined more recent samples from La Cantera caves #1 and #3 and they are blind *Cicurina*. Based on distribution, the blind *Cicurina* from the La Cantera caves will either be *C. Madla* or an undescribed species. It is very unlikely that they will be any of the three other listed species from the county.

to be *C. madla* than any of the other three listed species of *Cicurina*.⁴⁹ Although plaintiff continues to argue that only two positive sites were listed for *C. madla*, the record also reflects that there was just as much uncertainty as to whether *C. madla* actually existed in the La Cantera caves as existed in the cave chosen for mitigation. This site, the John Wagner Ranch Cave #3 lies within the UTSA karst region and contains the same possibility for *C. madla* as the La Cantera caves. Therefore, it appears that even if the Austin recovery standard was applicable to the FWS in this instance, the decision by the FWS in finding that three karst fauna areas within the UTSA karst region will exist for the *C. madla* species was not arbitrary or capricious.⁵⁰ Alternatively, even if FWS violated their Austin

⁴⁹ In an e-mail from FWS to Dr. Cokendolpher, FWS asked whether it was an appropriate assumption that the *Cicurina* sp from the John Wagner Ranch is *C. madla* based on distribution. Dr. Cokendolpher responded:

I assume you mean John Wagner Ranch Cave #3 because I think that is the only Cave on that ranch that has definitely yielded an immature eyeless *Cicurina*. Yes, based on known distributions that species is more likely to be *C. madla* than any of the other three listed *Cicurina*. Of course there is the possibility that it could be undescribed, but the proximity to Madla's Cave suggest otherwise. Hope that helps.

⁵⁰ Plaintiff also takes issue with the fact that FWS did not respond to Dr. Veni's point:

It is crucial to note that so far there are no protected KFAs within the UTSA KFR, so their establishment is vital (the proposed Canyon Ranch preserve is in the Government Canyon KFR where some species protection is available in Government Canyon State Natural Area). This in itself should result in the rejection of the proposed HCP since O'Donnell, Elliott, and Standard (1994) state in the recovery plan for the related Austin species that "if fewer than three karst fauna areas exist within a given karst fauna region of a given species' range, then all karst fauna areas within that region should be protected."

Dr. Veni goes on to explain:

This standard was established for the endangered cave ecosystems and not just the individually listed species. In doing so, it prevents the need to list other species that may be even rarer than those listed. An excellent example of this occurs at La Cantera Cave No. 1 and La Cantera No. 2. Both caves contain the rare troglobitic earwig-like *Mixojapyx* species. It is known from only four other caves in Bexar County, only one cave each from Comal, Kimble, Menard, and Travis counties, and is probably a complex of related but separate species (Veni and Reddell, 1999). The occurrence of *Mixojapyx* in the La Cantera caves is their only known occurrences in the UTSA KFR and none of the KFAs proposed in the HCP are known to contain that rare species of concern.

As FWS previously pointed out, the *Mixojapyx* is not a listed species, and therefore, FWS had no duty to protect it. Moreover, the FWS determined, despite Dr. Veni's opinion to the contrary, that three karst fauna areas within the UTSA karst region would exist after the proposed development. Therefore, it does not appear that FWS violated any standard requiring all karst fauna areas to be protected in the event fewer than three existed, and therefore, no response seemed

standard as plaintiff alleges, the citations to the record clearly set forth the reasons for any alleged inconsistency with respect to the *C. madla* mitigation.

With respect to the species *R. infernalis*, plaintiff agrees that FWS showed three positive sites in the UTSA karst area, but takes issue with the fact that one of the preserves is only 4 acres in area instead of the minimum 69-99 acres it contends is the minimum recovery standard based on the language contained in the EA/HCP at AR1, A9, 0084.⁵¹ As pointed out by the highlighted language of the section and by the FWS in its brief, these are recommendations and not recovery standards. As explained by FWS in its Biological Opinion and EA/HCP respectively:

Not all of the off-site preserves are of ideal size for providing the highest probabilities for long-term survival of the karst invertebrates because the majority of surrounding land was not available to the Applicant at the time of HCP development. However, additional acreage does exist around the preserves and is currently contributing to conservation of these species; and thus, this land around those caves may become available for preservation in the future. The Applicant has agreed to contribute money

necessary.

⁵¹ The section plaintiff refers to is entitled Karst Preserve Design and provides, in part, as follows:

Each cave and land use situation may vary, and for this reason possibilities exist for preserve designs to be different. It is also clear that in some cases of preserve design it is impossible to satisfy some design recommendations, such as minimum acreage, and in these cases other actions may be warranted to help insure the survival of the species. The Service believes that based on a review of the information mentioned above a minimum 500-ft radius from all karst features with listed species should be protected. This includes a core area that encompasses the minimum 164 ft. Cave cricket foraging range and a buffer needed to protect the core area from edge effects. This area should also help protect other invertebrates (such as daddy longlegs), herpetofauna, and mammals that provide nutrients to the caves, as well as deter fire ant infestations.

When considering this core area that is used as foraging grounds for the troglonexes, it is essential to also include the area necessary to maintain a native plant community on which the troglonexes rely. Both trogloxene input and detrital input during flooding are reliant on a healthy native plant community. Based on a review of literature, in order to preserve minimum viable populations of the native plant community, an area of 69-99 acres is **recommended**.

(Emphasis added).

toward development of outreach materials and to provide updated maps three times a year for three years from permit issuance. . . . This information will enhance the Service's ability to work with surrounding landowners and encourage more proactive protection and conservation efforts.

Three of the off-site preserves (Madla, John Wagner Ranch, and Helotes Hilltop/Blowhole) are of insufficient size by themselves to provide a high probability for long-term conservation of the species. However, the size and shape of these preserves is based in part on the land surrounding the features that was practicably available for sale during preparation of the HCP (Robert Kuhn, sworn affidavit). These three preserve sites are the type localities for four of the nine listed karst invertebrates. Additionally, all three preserves are adjacent to or surrounded by undeveloped lands that are currently contributing to the long-term conservation of these sites. Therefore, the merits of these sites and the lack of availability for sale of additional lands around them, makes them of conservation benefit to this Preferred Alternative.

The proposed approximately 4-acre John Wagner Ranch Cave #3 preserve lies within a small residential neighborhood in the Grey Forest area of northwestern Bexar County. Land to the east, west, and south of the proposed preserve area contains low-density (1-5 acres) occupied residential lots. Land to the north consists of undeveloped scrubby ranch land and woodland. A relatively high diversity of troglobitic species coupled with presence of low-density residential areas immediately to the east, west, and south and a large tract of undeveloped land to the north made acquisition and management of the preserve area high desirable. This cave is the type locality for *Rhadine exilis*.

Therefore, even if this were a recovery standard as plaintiff suggests, FWS clearly explained the reasons for choosing this land despite of the acreage amount. See Sierra Club v. Babbitt, 15 F. Supp. 2d 1274, 1282 (S.D. Ala. 1998) ("Administrative Record must contain some analysis of why the level or amount selected is appropriate for the particular project at issue, and the FWS should not apply inconsistent mitigation policies for the same species in the same geographic area, unless differences are based on biological or other good reasons and are clearly explained"). Moreover, plaintiff has not presented the Court with any evidence that the 69-99 acre recommendation is part of the Austin recovery standard it seeks to impose in this case. Again, based on the record presented, the Court does not find the FWS acted in an arbitrary or capricious manner in allowing the John Wagner Ranch Cave #3 to serve as an off-site preserve for *R. infernalis*.

In its next argument, the Center alleges that not only were the recovery standards for La Cantera's HCP relaxed, but the permit standards were relaxed as well. In support of this proposition, plaintiff refers to the Buttercup Permit which it claims contains stop-work provisions that are not contained in La Cantera's permit. The Center specifically points to sections AA, HH, MM, and SS of the Buttercup permit to support its assertion.⁵² The Center contends La Cantera applied pressure on

⁵² The Buttercup Permit was issued on September 30, 1999, for a Buttercup Creek Subdivision located in Williamson County, Cedar Park, Texas. The provisions cited by plaintiff are as follows:

- AA. All endangered and species of concern covered by the HCP and this permit will undergo species counts conducted within a representative cave of each preserve area, where it occurs. Surveys will follow a standard method and be conducted at least one year prior to construction surrounding the preserve and once per year until construction occurring in proximity to that given preserve is completed. Following construction activity, the surveys will be conducted once a year for the first three years and then once every three years thereafter for the life of the permit. Ambient and surface air temperature ... and relative humidity or dew point will be measured, at the same place each time, and the observations will be noted. Surveys will be conducted by a qualified expert, current USFWS scientific permit. Surveys will be conducted over a one hour period during the same time of day and week as previous years. All results and observations will be submitted to the USFWS in an annual report. If negative results are documented, necessary changes, as appropriate to meet the goals of this HCP, will be implemented.

- HH. Team environmental consultants will be notified immediately of any subsurface void encountered and will respond immediately to assess the void geologically and biologically. Construction work in the immediate vicinity of the encountered voids will halt until project environmental consultants have completed necessary evaluations and made recommendations for treatment of the void. Project environmental consultants will initially determine if cave conditions might be favorable for the occurrence of endangered and species of concern. If potential favorable conditions are present, three biological collection surveys will be conducted over not greater than a one week period to determine the presence or absence of the listed invertebrates or other species of concern.

Although not cited by the Center, paragraphs II and JJ of the Buttercup Permit explain what happens to encountered voids. Paragraphs II and JJ provide as follows:

If no listed species of concern are determined to be present in an encountered void, environmental consultants will issue specific instructions for sealing the void along with the construction zone in accordance with standard TNRCC accepted practices, as applicable for any particular void (EA/HCP Appendix B). Voids will be sealed so as not to allow any impacts or contamination into the karst ecosystem. The Service will be notified of methods used for sealing. Construction activity will then resume with the carrying out of those specific instructions. The Service will be notified of findings prior to resuming construction activities.

If listed species of concern are determined to be present within an encountered void, environmental

the FWS to avoid making “that info part of the record so that someone comes along and shuts us down.”⁵³

consultants will immediately notify the Service. Closure and impact minimization instructions will be issued by the environmental consultants to contractor(s) with notification to the Service. Upon completion or implementation of the minimization procedures (following inspection and approval by the environmental consultants), the work will resume.

MM. If during the tenure of this permit the project design and/or the extent of the habitat impact described in the habitat conservation plan is altered, such that there may be an increase in the impacts to the karst preserve areas, the permittee is required to contact the Service and obtain authorization and/or amendment of the permit before commencing any construction or other activities that might result in take beyond that described in the EA/HCP.

SS. If during the tenure of this permit the extent or quality of the habitat described in the habitat conservation plan is altered, such that there may be an increase in the anticipated take of the Tooth Cave ground beetle, the permittee is required to contact the Service and obtain authorization and/or amendment of the permit before commencing any construction or other activities that might result in take beyond that described in the EA/HCP. This provision does not apply to encounters with currently unknown voids, which are covered by this permit and for which prudent conservation measures have been specified.

⁵³ In support of this assertion, plaintiff points to notes contained in the Administrative Record at AR 3, B46, 1556. These notes were taken by a FWS employee during a May 14, 2001 meeting with La Cantera representatives, other FWS employees, and a representative of SWCA. The representative of La Cantera begins by stating that he received an e-mail and to begin with that: “continued survey of LC1 and 2 - no harm no foul if a new species is found.” The representative was told if they find something it comes in in their annual reports. The La Cantera representative then asks, “now, other caves on-site if species in them; I don’t understand how after all of this process we’re still not getting assurances.” One representative of FWS responds, “it’s been an issue but in our most recent HCP’s that’s standard; it’s an unknown that we can’t give assurances for; examples are Sultan, Ribelin, and Purcell.” Another FWS representative explains, “you are covered for those you do know but not ones you haven’t found unless already mitigated at the maximum extent; assurances to clients can be that your surveys have been extensive.” La Cantera asks in follow-up, “what if we do find a species not in one of our preserves?” FWS responds, “we need to see how adequately mitigated for they are; if in other caves then may already be considered covered; if not in any mitigation caves then you may need to mitigate further with additional caves.” La Cantera continues, “what if preserved by others?” FWS responds, “but you need to mitigate for your take.” La Cantera counters, “I don’t know how I can take the risk of not being able to find another cave with that sp.” FWS responds, “and we can’t let you out of it legally.” Another FWS representative adds, “and you have to mitigate for the species you are impacting with that same species.” An attorney then asks, “at what point do we get to a point where we’ve surveyed enough that we can be covered for everything; lets start with *Rhadine infernalis*.” FWS responds, “you don’t have it on-site; is it mitigated at some level? [Y]ou guys were going to get us that info; and we’re not accepting a lower ratio just because it’s not known to occur.” La Cantera states, “we should be covered for all species in our preserves; definitely need to be covered for all UTSA species and don’t even need to look for the others because they are too unlikely.” FWS responds, “but even Buttercup still has to look.” The attorney then asks, “what difference does that make?” La Cantera representative states, as pointed out by the plaintiff, “we don’t want that info part of the record so that someone comes along and shuts us down.” FWS replies, “but then we’re open for a lawsuit.” The attorney then asks, “at what point is due diligence met? With all the surveys done?” FWS replies, “the major discomfort is because there is a much greater chance of finding another species that is rare and additionally all of the questions regarding the *T. cokendolphi* possibilities.” Toward the end of the conversation the question concerning due diligence is again posed by a representative of USAA, “is there any more diligence we could do.” FWS responds, “continuing to look for mature species.” The USAA representatives responds, “I think that is a waste because we get very few results from biologists;

In response, FWS contends that as argued by La Cantera, the so-called “stop work” provision of the Buttercup permit does nothing more than provide for one-week delays in construction after which the caves were to be sealed without regard to what was found in the surveys and does not provide for a halt to construction to allow FWS to make changes to the permit to protect the species. The Court does not find any provision allowing the FWS to change the Buttercup permit to protect the species and agrees with defendants’ analysis that the caves found pursuant to the Buttercup permit will be sealed regardless of the findings. Therefore the Court is unclear as to what benefit the species at issue herein would have gained from the addition of this provision. Although plaintiff argues this provision shows FWS was relaxed in the issuance of the La Cantera permit, plaintiff has failed to provide any evidence that this provision is standard in other ITPs which have been issued, for example in a closer geographic region such as Austin, or why the failure to include this one provision was arbitrary or capricious. With respect to the other Buttercup permit provisions plaintiff cites, i.e. AA, MM, and SS, FWS contends similar provisions are found in La Cantera’s HCP and are incorporated into their permit via paragraphs I and R.⁵⁴ Upon a review of these provisions, the Court agrees.

what if we used other techniques?” FWS replies, “not realistic over 100 ac to do resistivity or core bores.” In follow-up, the USAA representative asks, “what if we separated out the retail tract?” to which the La Cantera Representative added, “what if no harm no foul on 160 acre retail but balance will address what’s covered and what’s not?” FWS responds, “We’ll need to think about it; but what if you found something on 160 acre, then you would have to do something if found elsewhere on balance of property; not that I’ll go there, but what if.” The attorney then states, “but with surveys we put ourselves in a box with info found; and if found on 160 ac its toast, so lets just move on; you’ll have to cover us for all 9 because then when we survey we’re covered if we do find something.” FWS responds, “we’ll need to think about that.” The attorney concludes the discussion with the statement, “we need to get you adaptive management spreadsheet, you’ll get back to us on covered species, and also addressing 160 acres different from remaining 840.”

⁵⁴ Compare language of section AA of the Buttercup permit requiring species counts and surveys with the sections 6.3.9 and 6.3.10 of the La Cantera’s EA/HCP incorporated into its ITP via section I:

The Permittee or Management will develop a monitoring plan in coordination with and subject to the approval of the Service as part of the KMMP. The monitoring plan needs to be designed to assess the status of the listed species, the karst ecosystem, and the effectiveness of management in meeting the goals and objectives of this HCP. In the event that elements of preserve management are not meeting these goals and objectives, monitoring will help determine what factors are most likely causing any declines or detrimental effects, so that effective management actions can be implemented and adjusted as needed.

The monitoring plan needs to address components of both the surface and subsurface communities and environments that are important to the Covered Species. Methods should be designed to minimize impacts on the Covered Species. The monitoring program needs to be adequate to assess whether the

Permittee or Management is successful in conserving the Covered Species and to determine what factors may be contributing to any observed declines or deleterious effects. The monitoring plan will include, but is not limited to, the following components:

- a. Baseline monitoring will begin prior to clearing and construction on the portion of the Property east of La Cantera Parkway for the La Cantera caves and within 6 months after permit issuance for off-site preserves.
- b. Surveys for listed species within all caves with listed species will occur every year, and will be done at the same time of year (within 30 days) during the Spring (March through June) or Fall (September through December). Monitoring in all caves with listed species will include, but is not limited to:
 1. all vertebrates and invertebrates, alive or dead, including all troglobites, troglaphiles, troglonexes, and accidental species;
 2. quantities for each species (approximations may be made for very abundant species);
 3. microhabitat descriptions and locations (maps and descriptions) within the cave of each listed species;
 4. types (identified as specifically as possible) and approximate quantities of other organic matter including leaf litter, fungus, feces, bones;
 5. signs of mammal or other troglonexes or accidental vertebrates (for example, scratch marks, middens, nesting materials, shed skins);
 6. Temperature and humidity within the cave at the time of the survey, recorded with equipment other than the dataloggers.
- c. Monitoring of the cave environment (temperature and humidity) within each endangered species cave will be continuously recorded on a 24-hour basis with automated dataloggers. These data will be downloaded during the annual cave interior monitoring. Additionally, cave cricket abundance surveys will be conducted twice a year and will always be done at the same time of year ... unless otherwise approved by the Service.
- d. Measurements of surface temperature and relative humidity and notations made of recent weather events (for example, drought, recent rain, heat waves, cold spells, tornados) will be reported for each of the monitoring visits described above.
- e. Monitoring of the surface community for:
 1. Imported fire ants ...;
 2. status and changes in vegetation ...;
 3. numbers of mammals that may be either beneficial or detrimental to the karst ecosystem and the surface community on which it depends ...;
 4. browse pressure, oak seedling recruitment, and vegetation damage from deer or feral hogs;
 5. invertebrate abundance in leaf litter.

Section 6.3.10 provides:

If during surveys/site inspections by the Management or Permittee, during Service review of reports, or reports by a third party, a determination is made by the Service that the goals or management objectives of this HCP are not being met, or management and/or monitoring activity is determined not to be effective in conserving a Covered Species, then adjustments to the management program may be warranted. Adjustments will be made promptly within a reasonable time in consultation with the Service unless specified elsewhere in this HCP. Conditions not already mentioned in the Karst Preserve Management and Monitoring Section (6.3) may also warrant such adjustments and include, but are not

Plaintiff's remaining arguments in this section focus on the fact the Service did not agree with

limited to, the following:

- destruction or deterioration of subterranean habitat (which could be due to a number of factors including, but not limited to, drying, loss of water inputs, and point-source and non-point source pollution),
- a single drastic or consistent gradual decline in the number of observed Covered Species, Cave crickets, or other native species that normally inhabit the caves,
- declines in measured relative humidity or increased variation in measured temperature or shifts from suitable temperatures,
- new information on the biology of the Covered Species, or
- evidence of loss of structural integrity of one or more caves such as collapse or large breakdown in the cave interior or entrance.

Adaptive management options to be considered may include, but are not limited to:

- replacement or modification of the karst preserve perimeter fence and/or installation of interior cave security fencing around specific caves;
- installation, replacement, or repair of cave gates;
- hunting, trapping, or other deer and hog reduction programs;
- irrigation of the karst preserve to preserve appropriate humidity levels in caves or to maintain vegetation integrity;
- vegetation control or plantings to achieve trespass deterrence, runoff control, improved nutrient input, cave cricket forage, re-establishment of native floral species, or cave temperature and moisture regulation;
- modification of drainage patterns within and around the karst preserves;
- for the plant community—thinning of the canopy, removal of selected individuals, control of exotic species, prescribed fire away from immediate cave areas, replanting native species that are under-represented, oak wilt control, and other suitable restoration activities approved by the Service;
- modifications to fire ant treatments (such as increasing the frequency of treatments);
- actions to reduce the number of mammalian predators;
- physical reinforcement of a cave(s) or cave entrance(s);
- activities may also be needed to address root causes of poor reproduction of the plant community or survivorship (such as control of seed predators, browsers, disease, etc); and,
- installation of a barrier between developed areas and the preserve to prevent, ameliorate, or deter deleterious impacts from the developed area.

Compare section MM of the Buttercup permit concerning alternation of project design and/or habitat impact with section R of the La Cantera permit which provides at section R:

If during the tenure of this permit the project design and/or the extent of the habitat impact described in the HCP is altered, such that there may be an increase in the anticipated take of the karst invertebrates, the Permittee is required to contact the Service and obtain authorization and/or amendment of the permit before commencing any construction or other activities that might result in take beyond that described in the EA/HCP.

Compare section SS of the Buttercup permit concerning alteration of the habitat such that an increase in anticipated take is possible and requiring Permittee to contact Service to obtain authorization and/or amendment of the permit prior to commencement of construction with section 6.8 which provides in part:

If during the tenure of this permit the project design and/or the extent of the habitat impact described in the habitat conservation plan is altered, such that there may be an increase in the anticipated take of the karst invertebrates, the Permittees are required to contact the Service and obtain authorization and/or amendment of the permit before commencing any construction or other activities that might result in take beyond that described in the EA/HCP.

Dr. Veni's assessment of the quality of the off-site preserves⁵⁵ and his statement that the EA/HCP is based on data that is simply wrong.⁵⁶ Plaintiff also points to a statement made in a telephone

⁵⁵ The proposed HCP will result in major impacts to La Cantera Cave No. 1 and La Cantera Cave No. 2 and total impact to La Cantera Cave No. 3, which are probably moderate quality habitats due to the nearby roads. My understanding of the mitigation matrix was that caves of moderate quality that would be subjected to major or total impact would require 2-3 caves in the same KFR in exchange for mitigation. This standard is not met by the number of caves offered in the UTSA KFR nor in their quality. In fact, not even a 1:1 mitigation of caves exists for the UTSA KFR.

Hills and Dales Pit is located in the UTSA KFR within a proposed 70-acre preserve. However the tract is irregular in shape where edge effects will be heightened, the cave is relatively near one edge and drains some runoff from the road and uphill homes, and the quality of the cave's habitat is low due to flooding and related excess nutrient input. Hills and Dales Pit is probably of similar biological value as La Cantera Cave No. 2 or 3, but not No. 1 and certainly not all three caves.

The preserve proposed for John Wagner Ranch Cave No. 3 is highly inadequate. The proposed 4-acre preserve, also in the UTSA KFR, does not encompass the entire drainage area for the cave and does not adequately protect from edge effects from nearby existing or future development. Fire ants are a frequent problem and other invasive plant and animal species are present within the proposed preserve. Visitors have regularly and heavily impacted the cave; its large entrance serves as a frequent party site where trash is disposed and campfires are burned. No gate or prevention of these activities is proposed in the HCP.

While the habitat at John Wagner Ranch Cave No. 3 seems richer with nine known troglobites (the three La Cantera caves respectively have six, eight, and five troglobites), its high numbers is the result of numerous collections over the past 39 years and does not reflect the current low quality of the habitat. The cave should be protected, but it has too many problems of its own to serve as mitigation unless a larger and effective preserve can be established there and the habitat is restored.

⁵⁶ Some of the technical information supporting the HCP is flawed or questionable. "Appendix I - Assessment of La Cantera Cave Biota and HCP Preserve Descriptions" (I did not receive the entire HCP proposal from you and cannot cite the authors or source) repeatedly overstates the significance of the proposed mitigation. The number of troglobites in a cave is a common way of approximating the richness of its fauna. However, Appendix I overstates the number of troglobites in the proposed mitigation caves from 1-3 because it lists the spider *Cicurina varians*, the springtail *Pseudosinella violenta*, and the scorpion *Vaejovis reddelli* as troglobites when they are all troglophiles. Additionally, the authors of the appendix do not realize that the scorpion has been reclassified as *Pseudouroctonus reddelli*.

One major concern about the technical information supplied to USFWS is a statement in the Service's assessment of the HCP that all but 3 of over 400 potential karst features found on the La Cantera property were "considered insignificant with regard to karst invertebrate habitat" by the people assessing them. As you know, I have done considerable study of karst features nearby on Camp Bullis. In an area of comparable size and geology, my team has also found more than 400 potential karst features, but our study revealed 23 caves with endangered species (Veni and Reddell, 1999). Additionally, I can identify at least 30 unexcavated karst features within that area that if excavated will almost certainly lead to caves and possibly endangered species habitat. Based on my experience and detailed knowledge of the Bexar County karst, there is no way that the "3 of over 400" number can be correct. It must reflect work that was done incompetently or dishonestly. It is far more likely that the correct number of

conversation concerning the size of the preserves.⁵⁷ FWS contends it was not arbitrary or capricious to rely on their own experts who reviewed the reports and studies, visited the property (unlike Dr. Veni), and visited the mitigation sites. FWS notes that Dr. Veni reviewed the draft EA/HCP without all of the reports and underlying data and made complaints in his August 12 letter concerning access to the mitigation properties which had been addressed in the draft HCP, i.e. issues concerning fencing and gating the preserves. FWS also maintains they received comments from La Cantera and its consultant addressing Dr. Veni's comments and had information from three different consultants who surveyed the karst formations and studied the La Cantera property as well as several consultants who had extensively studied the mitigation property.⁵⁸ The EA/HCP explains how the property was

potential endangered species localities at La Cantera is underestimated by at least a factor of ten. If USFWS approved the proposed HCP, it will almost certainly result in far greater habitat degradation at La Cantera than is suggested by the HCP.

⁵⁷ Support for plaintiff's assertion that the Service did not consider the smaller 4 to 5 acres preserves to be adequate comes from the phone record of a FWS employee concerning a conversation she had with Gene Dawson on September 28, 2000. The record provides the following:

We [assuming Alisa Shull & Christina Longacre of FWS] have reviewed the karst information a little further and have decided that we should not take any preserve for mitigation that is not considered viable long-term. This basically equates to a high quality preserve. Therefore, we would not be able to accept the proposed 5 ac preserves. Mitigation needs to meet our preserve design recommendations.

⁵⁸ As noted by FWS, it relied on Karst Investigation by Horizon Environmental Services, Inc. in December 2000, La Cantera Caves Hydrogeological Cave Evaluations prepared in March 1999 by Pape-Dawson Engineers, the Geologic Assessment prepared by Raba-Kistner Consultants, Inc. in August of 1993, the La Cantera Property Hydrogeologic Cave Evaluations of Helotes Hilltop Cave, Helotes Blowhole, and Hills & Dales Pit prepared in December of 2000 by Pape-Dawson Engineers, and the La Cantera Karst Invertebrate Mitigation Plan prepared by SWCA, Inc. Environmental Consultants, Horizon Environmental Services, Inc., Pape-Dawson Engineers, Inc. and Smith, Robertson, Elliott & Glen, LLP. In addition, FWS received comments from SWCA in direct response to the comments of Dr. Veni. Those are contained in the record as well.

In a letter dated August 30, 2001, to FWS, SWCA Environmental Consultants addressed Dr. Veni's assertion that the technical data was flawed as follows:

[Dr. Veni's conclusion of work done incompetently or dishonestly] is not the response one might expect from a dispassionate, scientific mind, when other explanations are possible, and in fact, quite likely. Mr. [sic] Veni admits that he did not review the entire HCP proposed (he did not have the technical appendices), yet he assures us without having reviewed all relevant documents that incompetence and dishonesty *must* be involved. Veni goes on to disclose that in his opinion, "...it is far more likely that

the correct number of potential endangered species localities at La Cantera is underestimated by at least a factor of ten.” Veni’s hyperbole and non-scientific approach in his review of the HCP calls into question impartiality on his part, and leaves us to wonder if his well known environmental activism has completely overstated his scientific judgment. His assertion that the La Cantera Property contains over 30 endangered species caves is not based on any available scientific facts and is patently absurd.

The following is a brief summary of the efforts expended since 1993, on behalf of La Cantera, by several qualified scientists and technicians to establish the presence and density of karst features on the La Cantera Property.

Three consulting firms have conducted geologic assessments or karst surveys on portions or all of the approximately 1,000-acre La Cantera Property (Property). Raba-Kistner Consultants, Inc. (RK) conducted a geologic assessment of approximately 200 acres of the Property in 1993.

SWCA, Inc. Environmental Consultants (SWCA) conducted a karst terrain features survey on the entire Property in 1994 and did additional investigations in 1997. In 2000, Horizon Environmental Services, Inc. (Horizon) conducted a karst investigation on approximately 136 acres of the Property. The Horizon survey area is completely contained with the RK survey area; both the RK and Horizon survey areas are completely contained with the SWCA study area. The results of each survey were summarized in individual reports, each of which were provided to the U.S. Fish and Wildlife Service (Service) as technical appendices submitted as part of the La Cantera EA/HCP. Additionally, the findings of each survey were summarized in a single report, which was also submitted to the Service as part of the La Cantera EA/HCP.

Since the karst evaluations of the La Cantera Property began in 1993, the scope and methodology of the efforts varied among the surveys. Also, since 1993, several hundred acres have been developed (golf course, hotel, clubhouse, casita complex) with all necessary local, state and federal permits.

The RK scope focused on identifying potential pathways for recharge or aquifer contamination and did not specifically consider karst invertebrate habitat. The RK reports do not identify survey methods. The Horizon and SWCA scopes were fairly similar and consisted of identifying potential karst features. Surveys were conducted along transects spaced 20 to 30 feet apart (Horizon) and 50 feet apart (SWCA). In addition, Horizon surveyed along concentric circles around features that showed evidence of internal drainage. Features that potentially contained habitat for listed karst invertebrates were further described and investigated to determine if excavation was warranted. If necessary, excavations were achieved by hand/hand tools (Horizon and SWCA) and by backhoe (SWCA).

The combined RK, SWCA, and Horizon survey areas cover the entire Property and over 10% (136 of 1,000 acres) of the Property was independently surveyed by all three firms. According to the Service, surveys for karst features should be conducted along transects spaced no more than 15 m (50 feet) apart. Both the Horizon and SWCA meet or exceed this criteria; the SWCA survey covered the entire property. Horizon conducted additional surveys around specific features believed to be significant. The Horizon report also clearly states that more features were found than those included in the report – the report presents information only on those features meeting TNRCC criteria or features warranting additional investigation for habitat for listed invertebrates. Though the methodology of the RK survey is not identified, the survey was apparently very thorough as almost 200 features were identified including caves, potential caves, faults, potential faults, rock outcrops, sinkholes, and depressions. The RK survey was also very broadly concerned with identifying any potential recharge pathway.

The Service also requires that karst features be excavated when necessary to determine if potential habitat for listed karst invertebrates is present. Of the 390 karst features identified during the RK,

evaluated:

Over 400 potential karst features have been evaluated on the Property. Three primary geological assessments have been performed in the past, and their combined scope has included the entire Property (Raba Kistner 1993a and 1993b; SWCA 2000a; Horizon Environmental Services, Inc. 2000). The area surveyed by each company, as well as the scope of investigation, was different for each survey. Section I of the supporting documentation of the Habitat Conservation Plan (page 75 ff section 6.0, the HCP), which is available upon request, provides a summary of the karst invertebrate survey history and results, where appropriate, for each of the over 400 potential karst features identified on the Property. Where possible, correlations between the features have been made and shown in Section I. The results of all the surveys are given in Table I-15 in Section I. All but three of the features (La Cantera caves #1, #2, and #3) identified during the course of the karst surveys are considered insignificant with regard to endangered karst invertebrate habitat.

Karst surveys began in 1993 when Raba-Kistner was contracted to conduct a Texas Natural Resources Conservation Commission (TNRCC) geologic assessment of a portion of the Property bounded by La Cantera Parkway to the west, Fiesta Texas to the north, Loop 1604 to the south, and Old Fredericksburg Road to the east (Raba Kistner 1993 a and b). During this survey, 200 potential karst features were identified, including a sinkhole that was later excavated by SWCA to reveal La Cantera Cave #3. A total of 89 of the karst features identified during the survey were described as fractured rock outcrops or faults and not likely to contain potential habitat for karst invertebrates.

SWCA was contracted in 1994 to conduct a karst feature survey to search for features on the entire Property with potential to provide habitat for the now endangered species. During this survey, 207 karst features were identified, including several features that had previously been identified in the Raba-Kistner geologic assessment. After the survey, SWCA excavated 41 karst features that were identified as meriting further evaluation with regard to potential karst invertebrate habitat. It was during these excavations that La Cantera Cave #3 was discovered and opened.

In 2000, Horizon was contracted by a potential developer to conduct a karst survey of 200 acres of the Property to the southwest of Fiesta Texas, east of La Cantera Parkway, and north of Loop 1604. The scope of the Horizon investigation was to conduct a detailed study of both aquifer recharge features and potential karst invertebrate habitat.

SWCA, and Horizon surveys, 42 features (11%) were excavated. The conclusion reached in the HCP that 3 of the hundreds of potential karst features originally identified contain listed karst invertebrates is correct and was determined on the basis of Service suggested protocols.

The letter goes on to address Dr. Veni's comments concerning the inadequacy of two of the off-site mitigation caves.

Horizon identified approximately 28 insignificant karst features that had not been identified by Raba-Kistner or SWCA. No additional caves or subsurface voids were identified during the Horizon investigation.

The FWS also addressed why it was accepting off-sites preserves of insufficient size as follows:

Three of the off-site preserves (Madla, John Wagner Ranch, and Helotes Hilltop/Blowhole) are of insufficient size by themselves to provide a high probability for long-term conservation of the species. However, the size and shape of these preserves is based in part on the land surrounding the features that was practicably available for sale during preparation of the HCP (Robert Kuhn, sworn affidavit). These three preserve sites are the type localities for four of the nine listed karst invertebrates. Additionally, all three preserves are adjacent to or surrounded by undeveloped lands that are currently contributing to the long-term conservation of these sites. Therefore, the merits of these sites and lack of availability for sale of additional lands around them, makes them of conservation benefit to this Preferred Alternative.

Although plaintiff takes issue with the size of these preserves and the fact that the Service did not defend them “scientifically,” plaintiff has not provided the Court with any authority that the FWS must respond to every statement or comment made in order for its actions not to be arbitrary or capricious. The record presented supports a finding that FWS considered Dr. Veni’s comments but chose instead to rely on their own and other experts to which this Court must give great deference. Center for Marine Conserv. V. Brown, 917 F. Supp. 1128, 1143 (S.D. Tex. 1996). The record does not support plaintiff’s contention the HCP contained major flaws in terms of technical data relied upon, procedures employed, and conclusions reached. As a result, the Court finds the FWS was not arbitrary or capricious in finding that the development of the La Cantera property would not “appreciably reduce the likelihood of survival and recovery of the species.”

***3. Did the FWS Violate the National Environmental Policy Act By Its
“Finding of No Significant Impact?”***

Plaintiff alleges that FWS violated the National Environmental Policy Act (NEPA) by finding in its “Finding of No Significant Impact” (FONSI) that the La Cantera development would have “no

significant impact” thereby avoiding the preparation of an Environmental Impact Statement (EIS) to fully assess the impacts of the development.⁵⁹ Plaintiff contends a challenge to an agency’s decision not to prepare an EIS, should be upheld and the filing of an EIS ordered if the court finds “the project may cause a significant degradation of some human environmental factor.” Plaintiff argues that although the Fifth Circuit subsequently has held the standard of review is under the arbitrary and capricious standard rather than the reasonableness standard previously espoused, that change was not of great pragmatic consequence and did not affect the “may be significant” standard set forth in Save Our Ten Acres v. Kreger, 472 F.2d 463, 467 (5th Cir. 1973).

FWS and La Cantera in response state this Court must apply the arbitrary and capricious

⁵⁹ In its Finding of No Significant Impact, the FWS stated, in part:

*The U.S. Fish and Wildlife Service (Service) prepared an environmental assessment for the issuance of a section 10(a)(1)(B) permit for the incidental take of *Rhadine exilis*, *Rhadine infernalis*, and *Cicurina madla*, federally-listed endangered species, during new construction on the La Cantera Property (Property) located at the junction of Loop 1604 and Hwy 281 in northern San Antonio, Bexar County, Texas.*

A habitat conservation plan has been developed that includes preserves for *Rhadine exilis*, *Rhadine infernalis*, and *Cicurina madla*, and other important species. This plan includes the following features:

- Minimizing impacts to *Rhadine exilis*, *Rhadine infernalis*, and *Cicurina madla* habitat.
- Provides adaptive management for Cave preserves to include cave gating, routine inspections, fire ant control, and vegetation management.
- Addresses compliance, construction, and management monitoring and reporting.

The Service published a Notice of Availability of the EA/HCP and Receipt of the Application for an Incidental Take Permit for three karst invertebrates from a Residential and Commercial Development on approximately 1,000 acres in Bexar County, Texas in the Federal Register on July 2, 2001. Publication of the notice initiated a 60-day comment period, which closed on August 31, 2001. Eighteen requests for copies and 12 comment letters were received. We address the written comments in the following summary. These comments addressed a range of issues regarding permit issuance. Because multiple respondents offered similar comments in some issues, we combined those comments in the following summary.

Based upon information contained in the Environmental Assessment/Habitat Conservation Plan, and supporting data in the Service’s files, the U.S. Fish and Wildlife Service has determined that this action is not a major Federal action that would significantly affect the quality of the human environment within the meaning of section 102(2)(c) of the National Environment Policy Act of 1969. Accordingly, the preparation of an Environmental Impact Statement on the proposed action is not warranted.

standard in reviewing FWS's decision not to prepare an EIS. As previously set forth, under this standard great deference to the decision not to prepare an EIS must be given, and this Court may not substitute its own judgment for that of FWS. Defendants maintain the former requirement that a court should require the filing of an EIS if it finds the project "may" have caused a significant degradation of some human environmental factor is no longer good law. Sabine River Auth. v. United States Dep't of Interior, 951 F.2d 669 (5th Cir. 1992). Not only did Sabine overrule the "reasonableness" standard relied on in Kreger, but it also, according to defendants' analysis, requires this Court to defer to FWS's non-arbitrary conclusion that the permit at issue here lacks the type of significant impacts which warrant an EIS even though Dr. Veni may be of the opinion that "significant effects 'may' occur."

For an overview of the NEPA, its EIS requirement, and the standard of review, the Court found instructive the following:

The National Environmental Policy Act ("NEPA") requires the preparation of an Environmental Impact Statement ("EIS") for all "major Federal actions significantly affecting the quality of the human environment." An EIS is a "detailed statement" examining in depth the environmental impact of the proposed action and alternatives to the proposed action. NEPA set forth "action-forcing" procedures designed to fully inform agency decisionmakers of the environmental impact of their decisions. The reason for the EIS requirement is that "decisions that are based on understanding of the environmental consequences" will "protect, restore and enhance the environment." "NEPA exists to ensure a process, not a result." Thus NEPA does not forbid harm to the environment but requires government decisionmakers to evaluate that harm and explain why the action is justified despite the harm:

NEPA is not designed to prevent all possible harm to the environment; it foresees that decisionmakers may choose to inflict such harm, for perfectly good reasons. Rather, NEPA is designed to influence the decisionmaking process; its aim is to make government officials notice environmental considerations and take them into account.

By regulation, an agency considering whether an action would require preparation of an EIS must prepare a brief, preliminary evaluation, called an environmental assessment ("EA"). EAs are intended to be concise documents that "briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a 'finding of no

significant impact' ("FONSI"). NEPA requires that an EIS be prepared before taking action that may significantly affect the quality of the human environment. An EIS must be prepared if "substantial questions are raised as to whether a project ... *may* cause significant degradation of some human environmental factor." "The plaintiff need not show that significant effects *will in fact occur*, but if the plaintiff raises substantial questions whether a project may have a significant effect, an EIS *must* be prepared."

In assessing the significance of a project's impact, NEPA regulations require the agency to consider a variety of factors, which are set out in two categories, labeled "context" and "intensity." The regulations enumerate a number of relevant considerations, including the scope of the affected area and region, the severity of the impact, whether public health may be affected, whether unique resources may be affected, the degree to which the effects are likely to be controversial or uncertain, the precedential nature of the action, the impact of other related actions, the degree to which the action may affect an endangered or threatened species or critical habitat, and whether the action threatens a violation of federal, state or local law.

After conducting a preliminary environmental assessment, if the agency makes a Finding of No Significant Impact, then no EIS is required. An agency's decision to issue a FONSI, and not to prepare an EIS is reviewable under the arbitrary and capricious standard.

National Wildlife Fed'n v. Babbitt, 128 F. Supp. 2d 1274, 1287-88 (E.D. Cal. 2000) (citations omitted).

In reviewing an agency's decision not to prepare an EIS, courts must "ensure that the agency has taken a 'hard look' at environmental consequences" of its action. While a review of agency action is narrow and presumes the agency action valid, an agency action shall be set aside as arbitrary and capricious where the agency has "entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise. There are four criteria to be considered in determining whether an agency's decision not to prepare an EIS is arbitrary and capricious:

First, the agency must have accurately identified the relevant environmental concern. Second, once the agency has identified the problem it must have taken a "hard look" at the problem in preparing the EA. Third, if a finding of no significant impact is made, the agency must be able to make a convincing case for its finding. Last, if the agency does find an impact of true significance, preparation of an EIS can be avoided only if the agency finds that changes or safeguards in the project sufficiently reduce the impact to a minimum.

Sierra Club v. Babbitt, 15 F. Supp. 2d 1274, 1283 (S.D. Ala. 1998) (citations omitted); see Tillamook County v. United States Army Corps, No. 01-35922, 2002 WL 745577, at *2 (9th Cir. Apr. 29, 2002, designated for publication in F.3d) (an agency’s decision not to prepare EIS is reviewed under arbitrary and capricious standard; court must determine if agency has taken “the requisite hard look at the environmental consequences of its proposed action” and “conducted a ‘reasoned evaluation of the relevant factors’”; agency’s decision rejected only if clear error of judgment; EIS not required if after hard look proposed action will not have significant impact; agency’s decision to forego EIS preparation may be justified even in presence of environmental impacts if agency adopts “mitigation measures in response to identified impacts”); Utah Shared Access Alliance v. United States Forest Serv., No. 00-4146, 2002 WL 725419, at *1, *7 (10th Cir. Apr. 25, 2002, designated for publication in F.3d) (NEPA does not require “agencies to elevate environmental concerns over other appropriate considerations”; NEPA requires the agency take a “‘hard look’ at the environmental consequences before taking a major action”; role of courts in reviewing NEPA compliance “is simply to ensure that the agency has adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary and capricious”; agency’s decision not to prepare EIS is “a factual determination which implicates agency expertise and accordingly, is reviewed under the deferential arbitrary and capricious standard of review”; court to consider whether decision “‘based on a consideration of the relevant factors and whether there has been a clear error of judgment’”); Sabine River Auth. v. United States Dep’t of Interior, 951 F.2d 669, 677-78 (5th Cir. 1992) (recognizing previous standard of review of decision not to prepare EIS based on “reasonableness” no longer applicable; arbitrary and capricious standard to be applied; “[u]nder this highly deferential standard of review, a reviewing court has the ‘least latitude in finding grounds for reversal’”; court may not “substitute its judgment for that of the

agency, but must studiously review the record to ensure that the agency has arrived at a reasoned judgment based on a consideration and application of the relevant factors”; where agency presented with conflicting evidence, it is the agency not the reviewing court that is given the discretion to “accept or reject from the several sources of evidence. The agency may even rely on the opinions of its own experts, so long as the experts are qualified and express a reasonable opinion. The reviewing court may be inclined to raise an eyebrow under such circumstances, but it must show the proper respect for an agency’s reasoned conclusion even if the reviewing court finds the opinions of other experts equally or more persuasive.”); Save Our Wetlands v. Julich, No. Civ.A.01-3472, 2002 WL 59401, at *3 (E.D. La. Jan. 15, 2002) (review of agency’s FONSI conducted under arbitrary and capricious standard; because NEPA a purely procedural statute, “courts are not permitted to critique an agency’s substantive decisions or to second guess the extent or quality of its decisionmaking process”; FONSI may only be set aside if “(1) evidence before the court demonstrates that, contrary to the FONSI, the project may have a significant impact on the human environment or (2) the agency’s review process was flawed in such a manner that it cannot yet be said whether the project may have a significant impact); Gerber v. Babbitt, 146 F. Supp. 2d 1, 5 (D.D.C. 2001) (court’s review of decision by Service on necessity of EIS involves “evaluating only whether it has taken a ‘hard look’ at the environmental impact and documented ‘its determination of “no significant impact””); Stewart v. Potts, 126 F. Supp. 2d 428, 434 (S.D. Tex. 2000), aff’d (5th Cir. Mar. 20, 2002, Table Nol. 01-40156) (arbitrary and capricious standard very narrow and mandates “judicial deference to conclusions and actions of the agency”; decision by agency need not be ideal so long as not arbitrary and capricious and minimal consideration to the facts in the record must be given; court’s review of agency’s scientific factfindings “especially deferential”; “We must look at the decision not as the chemist, biologist, or statistician that we are

qualified neither by training nor experience to be, but as a reviewing court exercising our narrowly defined duty of holding agencies to certain minimal standards of rationality.’”); Brenham Cmty. Protective Ass’n v. United States Dep’t of Agriculture, 893 F. Supp. 652, 658-59 (W.D. Tex. 1995) (plaintiff bears burden of providing decision to forego producing EIS was arbitrary and capricious; plaintiff carries burden of showing “[d]efendants had little or no evidence to support their decision to grant assistance without an EIS or Defendants ignored or disregarded a relevant factor in making their decision). Based on these instructions and parameters, the Court finds the decision not to issue an EIS in this case was not arbitrary and capricious.

In its attempt to show to the contrary, plaintiff contends the record reveals that even the Service did not believe there were not significant impacts from this development. Plaintiff contends the following e-mail supports this assertion:

Leslie [apparently FWS employee Michelle Shaughnessy e-mailed this response to FWS employee Leslie Dierauf, who forwarded same to FWS employee Christina Longacre], here are some responses in the findings document I put together for specific comments on AD 161, this might help your thoughts on the jeopardy issue and recovery issue in the letter. I am still searching for responses on the EIS issue. In a nutshell, you should talk about how these particular caves fit into the conservation strategy for the region. I assume that they are relatively unimportant to the larger scheme and therefore not significant.

AR 1, A44, 493. Handwritten off to the side of the e-mail are notes apparently by Christina Longacre in which she notes “not ‘not significant,’ just not jeopardy.” The record is not clear to the Court that Christina was referring to significance in terms of the project as a whole thus necessitating an EIS or was jotting down the correct terminology to use in support of FWS’s no jeopardy finding. As set forth in the introduction, the e-mail concerned “comments ... [that] might help your thoughts on the jeopardy issue and recovery issue in the letter.” The writer indicated she was “still searching for responses on the EIS issue.”

Plaintiff next turns its attention to the “applicable factors” discussed by the Fifth Circuit to be used in determining “significance.” The Center argues that FWS’s decision not to prepare an EIS does not comport with six of the ten factors found in the NEPA regulations promulgated by the Council on Environmental Quality (CEQ).⁶⁰ These factors are: ecologically critical area, controversial impacts and unknown risks, precedential nature of action, cumulative impacts, destruction of significant scientific resources, and adverse effect on endangered species.

⁶⁰ The NEPA requires the preparation of an EIS before “any taking action that may significantly affect the quality of the human environment.” National Wildlife Fed’n v. Babbitt, 128 F. Supp. 2d 1274, 1287 (E.D. Cal. 2000). The term “significantly” as used in the NEPA requires the consideration of context and intensity. Id. at 1288. With respect to intensity, the regulations explain: “This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

- (1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
- (2) The degree to which the proposed action affects public health or safety.
- (3) Unique 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.
- (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
- (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
- (6) The 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.
- (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
- (8) The degree to which the action ... may cause loss or destruction of significant scientific ... resources.
- (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
- (10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Id. at 1287 n.13; 40 C.F.R. § 1508.27.

As one court has noted, “[s]ignificantly, the regulations do not prescribe the weight to be given to these criteria.” Friends of the Ompompanoosuc v. Fed. Energy Regulatory Comm’n, 968 F.2d 1549, 1556 (2nd Cir. 1992). “The statutory concept of ‘significant’ impact has no determinate meaning, and to interpret it sensibly in particular cases requires a comparison that is also a prediction: whether the time and expense of preparing an environmental impact statement are commensurate with the likely benefits from a more searching evaluation than an {EA} provides.” River Road Alliance v. Corps of Eng’rs, 764 F.2d 445, 449 (7th Cir. 1985), cert. denied, 475 U.S. 1055 (1986).

Ecologically Critical Area

Plaintiff contends, that as discussed in the ESA section of its motion, the record plainly shows the karst area at issue is an ecologically critical area and the development may have an adverse impact upon it. Not only is it critical to the endangered invertebrates but also to the Edwards Aquifer.⁶¹ In

⁶¹ Plaintiff references a partial sentence out of section 3.9 and two sentences from section 5.1.1.7. of the EA/HCP in support of its proposition. The sections on water quality provide as follows with the portions referred to by the plaintiff in bold print:

3.7 Water Resources: All drainages on the Property are ephemeral. Surface water runoff from the Property flows directly or indirectly into Leon Creek. No permanent water bodies are present on the Property.

Most of the Property is in the Edwards Aquifer Recharge Zone. Most of the water for the proposed development will be supplied by San Antonio Water System (SAWS), under regulation of the Edwards Aquifer Authority. Additional water is supplied through on-site Trinity aquifer wells and irrigation ponds. The Applicant is not proposing to establish any new wells in the Trinity Aquifer or increase existing pumping capacity.

3.9 Water Quality: The Property lies within the Leon Creek watershed and the Edwards Aquifer Recharge Zone. Quality of surface water on the Property is currently estimated to be good because of a well developed vegetative cover. However **catastrophic and chronic water quality problems and groundwater contamination may result from human activities in the recharge zone, land-based oil and chemical spills, leaking underground storage tanks, development over recharge features, and reduction in the water level of the Aquifer.** The Aquifer underlies portions of Kinney, Uvalde, Medina, Bexar, Hays and Comal Counties (Texas). The Service has expressed concern that the combined current level of water withdrawal for all consumers from the Aquifer adversely affects aquifer-dependent species located at Comal and San Marcos Springs during low flows. These species depend on constant flows from springs that are directly influenced by the water levels and water quality of the Aquifer.

Although the aquifer quality falls within federal drinking water standards, contaminants have been found with greater frequency in the aquifer by the U.S. Geological Survey, including some wells with pollutant levels that exceed the standards. Reeves (1976) noted the occurrence of fecal coliform and fecal strep bacteria, and elevated nitrate and phosphate levels in some wells on the recharge zone. Most of these sites were near suburban developments. Buszka (1987) found elevated levels of nitrates, bacteria, volatile and nonvolatile organic compounds, and pesticides throughout much of the aquifer, but concentrated near Uvalde and San Antonio. Some of these sites were from a leaking landfill in San Antonio and from another point source contamination site in Uvalde, but many are too far removed to be firmly attributed to those sources and likely reflect other contaminant sources. Roddy (1992) reported similar results and additional contaminant localities. Rice (1994) found that 54 wells in Bexar County have reported mercury and chlorinated solvents. While only a few wells had contaminant levels above those permitted by drinking water standards, the presence of any compounds found in Edwards wells demonstrates the potential for aquifer contamination. As a result of these and other related factors that threaten aquifer water, the Edwards Underground Water District concluded (Kipp et al. 1993):

“The lack of adequate comprehensive standards and regulatory controls to protect the aquifer against water quality degradation, coupled with the rapid pace of development over the ERZ [Edwards aquifer

response, defendant points out that plaintiff has failed to substantiate this assertion, and moreover, the factors which plaintiff lists in support of its assertion, the threats to the karst invertebrate species, the impact to these species as well as the impact to the water resources and quality, including the Edwards Aquifer, were all considered by the FWS in preparing the EA.⁶² Although FWS concluded these

recharge zone] at this time, and presumably for some time to come, suggests that degradation of water in the Edwards aquifer is imminent.”

The Applicant is required to file a Water Pollution Abatement Plan (WPAP) associated with new development with TNRCC, since the proposed project is on the Edwards Aquifer recharge zone. While TNRCC’s Edwards Aquifer Rules offer some protection for the aquifer (for example, they require removal of 80% of the average annual load of total suspended solids) we believe this level of stormwater treatment falls short of true “non-degradation” of water quality.

Section 5.1.1.7 falls under the FWS’s Assessment of Take section and provides the following under the heading Water Quality:

Most of the water for the proposed development will be provided by SAWS. Other sources of water are the existing Trinity Aquifer wells and irrigation ponds on-site. **Annual water demand for the completed development is expected to be approximately 2,100 equivalent dwelling units or 756,000 gallons per day. Currently, SAWS obtains the majority of its water from the Edwards Aquifer;** however, the City of San Antonio is actively exploring alternative sources of water, including construction of reservoirs on the Colorado River downstream of the City of Columbus in Colorado County, Texas. Ultimately, SAWS is likely to provide its customers with water that originates from the Edwards Aquifer as well as alternate sources such that future source of water for the Preferred Alternative cannot be positively identified at this time. The Preferred Alternative will increase the demand for water in the project area.

⁶² FWS also cites to portions of the EA/HCP to support its position. Those sections provide a discussion of the Bexar County Karst invertebrates, the caves located on the property (where it is noted that based on the results of all surveys done, “[a]ll but three of the features (La Cantera caves #1, #2, and #3) identified during the course of the karst surveys are considered insignificant with regard to endangered karst invertebrate habitat,”) the karst species and their habitats, the water resources and quality (these sections set forth are in footnote 61), as well as the impacts of the proposed plans on these species. With respect to water resources, 5.1.1.3 provides in part:

The Service has examined the concern that the combined current level of water withdrawal for all consumers from the Edwards Aquifer could adversely affects [sic] aquifer-dependent species located at Comal and San Marcos Springs during low flows and that effects on aquifer-dependent springflows could affect Cagle’s map turtle (a candidate for listing), other regional efforts apart from this EA/HCP are expected to address the potential impacts to aquifer-dependent species from water withdraws. The Edwards Aquifer Authority (Authority; EAA) is a political subdivision of the State of Texas and is charged with the duty to manage, conserve, preserve and protect the Edwards Aquifer. The Authority has retained a qualified consultant to assist with the development of a regional Habitat Conservation Plan for the protection of all federally listed endangered or threatened species in the Edwards Aquifer and at Comal and San Marcos Springs. While development of the Property is expected to purchase water from the San Antonio Water System (SAWS), SAWS operates under the regulation of the Authority. Thus, any impacts associated with the Property increasing withdrawal of water from the Edwards Aquifer will be avoided, minimized, and/or mitigated by other federally approved actions. Threats to

caves were ecologically important, the FWS also concluded the HCP fully mitigated for any significance of impact on the La Cantera property because a greater number of off-site caves of greater or equal value will exist and species in addition to the ones at issue here will be protected at these off-site preserves. Moreover, because three other areas containing these species will exist in the UTSA karst region after development at La Cantera, the significance of the three La Cantera caves is likewise diminished. FWS maintains this finding is consistent with their Handbook which provides:

[A]n HCP that might otherwise require an EIS can be analyzed with an EA, if mitigation measures that would ensure that environmental impacts do not reach the significant level are part of the original project proposal (in this case, part of the HCP) and are enforceable. This type of EA can be used when an HCP would otherwise be expected to have significant environmental impacts but, with mitigation, those impacts can be reduced to less than significant levels. The basis for this type of EA is found at 40 CFR 1501.3(b), 1501.4(e)(2), and 1508.9(a)(2).

these species can be effectively addressed best on a regional, collective basis and SAWS and the EAA are the two entities primarily responsible for implementing a regional conservation effort.

Section 5.1.1.9 labeled "Water Quality" provides:

Although the Preferred Alternative will comply with all applicable environmental regulations, it is expected that some level of water quality degradation will result from the proposed development even though water quality mitigation would be designed in accordance with a TNRCC Water Pollution Abatement Plan (WPAP). At the levels of impervious cover proposed and the level of water quality treatment required, a portion of stormwater from most rainfall events will not be captured and treated. The Edwards Rules require capture of 80% of the development-induced loading of Total Suspended Solids (TSS). Therefore, up to 20% of the development-induced loading of TSS will be discharged from proposed development. In addition, changes in the volume and timing of runoff due to impervious cover, will result in changes to the hydrograph. These changes could result in increased streambank erosion and impacts to downstream resources.

Currently only the Retail Sub-area ... has completed a WPAP (March, 2001). The pollution abatement measures provided for this portion of the Property include five (5) sand filter basins. These basins will capture a total of 3,837,836 gallons of stormwater runoff from the development, and filter it through an 18-inch sand media before releasing it to drain to Leon Creek. The basins have been designed in accordance with TNRCC's Technical Guidance. Energy dissipaters will be provided at all points of concentrated stormwater discharge where excessive velocities are anticipated. This will help reduce the potential for erosion. Best Management Practices will include daily monitoring for trash and litter accumulation, collection and disposal.

In addition to the water quality measures required by the TNRCC, 148 acres of off-site mitigation lands (Canyon Ranch and Hills and Dales preserves) are located on the recharge zone and will contribute to water quality protection over the recharge zone.

The Court finds that not only does the Handbook support FWS's decision but case law does as well. See Tillamook County v. United States Corps of Engineers, No. 01-35922, 2002 WL 745577 (9th Cir. April 29, 2002, to be reported in F.3d) (“an agency’s decision to forego preparation of an EIS may be justified, even in the presence of adverse environmental impacts, if the agency adopts mitigation measures in response to identified impacts). Moreover, plaintiff has failed to meet its burden on this issue. Plaintiff has pointed out that this is an ecologically critical area due to the species and the Edwards Aquifer, but has failed to show that the FWS’s decision to issue the ITP may significantly affect the quality of the human environment or even raised a “substantial” question on this issue. See Indiana Forest Alliance Inc. v. United States Forest Serv., No. NA99-0214-C-H/G, 2001 WL 912751 at *13 (S.D. Ind. July 5, 2001) (although plaintiff identified certain unique characteristics of the property such as its karst features, plaintiffs did not show Forest Service “unreasonably concluded that the forest openings maintenance project will not significantly affect any of them”; “mere presence of unique features does not require ... prepara[tion of] an EIS”); Foundation for Global Sustainability Incorporated’s Forest Protection v. McConnell, 829 F. Supp. 147, 154 (W.D.N.C. 1993) (although plaintiffs asserted the project would affect the biological corridor, plaintiffs did not offer evidence what the possible impact would be; plaintiffs admitted they had to raise a substantial question about whether the proposed action would have significant effects on the environment and court found they failed to do so).

Controversial Impacts and Unknown Risks

Plaintiff’s next argument focuses on two factors: “[t]he degree to which the effects on the quality of the human environment are likely to be highly controversial” and “the degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.”

40 C.F.R. § 1508.27(b)(4), (5). Plaintiff argues the objections in the record demonstrate the controversial nature of the proposed action, its impacts, and proposed mitigation, and it is clear there is a controversy over what the effects of this HCP will be.

Again, plaintiff focuses on the comments of Dr. Veni as presenting the "clearest evidence that there is a serious scientific dispute about the effect the development will have on the cave invertebrates and the environment, including groundwater resources."⁶³ Plaintiff contends Dr. Veni is the "one person who may be the most expert in this field, and that his objections to the facts found in the EA were so strong" an EIS is "needed to come to a sound factual and scientific underpinning for the project." Plaintiff points to the Administrative Record at AR 1, A45 through A65 for the assertion that "nearly ever [sic] other comment in the record supported the thrust of Dr. Veni's comments or pointed

⁶³ As has been previously discussed, Dr. Veni's comments, and the Court has not been referred to any other place in the Administrative Record where Dr. Veni made additional comments, were made in his August 12, 2001 letter to FWS. The portion of the letter to which plaintiff repeatedly refers, the section labeled "Technical data for the proposed HCP are questionable" provides as follows:

Some of the technical information supporting the HCP is flawed or questionable. "Appendix I - Assessment of La Cantera Cave Biota and HCP Preserve Descriptions" (I did not receive the entire HCP proposal from you and cannot cite the authors or source) repeatedly overstates the significance of the proposed mitigation. The number of troglobites in a cave is a common way of approximating the richness of its fauna. However Appendix I overstates the number of troglobites in the proposed mitigation caves from 1-3 because it lists the spider *Cicurina varians*, the springtail *Pseudosinella violenta*, and the scorpion *Vaejovis reddelli* as troglobites when they are all troglophiles. Additionally, the authors of the appendix do not realize that the scorpion has been reclassified as *Pseudouroctonus redelli*.

One major concern about the technical information supplied to USFWS is a statement in the Service's assessment of the HCP that all but 3 of over 400 potential karst features found on the La Cantera property were "considered insignificant with regard to karst invertebrate habitat" by the people assessing them. As you know, I have done considerable study of karst features nearby on Camp Bullis. In an area of comparable size and geology, my team has also found more than 400 potential karst features, but our study revealed 23 caves with endangered species (Veni and Reddell, 1999). Additionally, I can identify at least 30 unexcavated karst features within that area that if excavated will almost certainly lead to caves and possibly endangered species habitat. Based on my experience and detailed knowledge of the Bexar County karst, there is no way that the "3 of over 400" number can be correct. It must reflect work that was done incompetently or dishonestly. It is far more likely that the correct number of potential endangered species localities at La Cantera is underestimated by at least a factor of ten. If USFWS approves the proposed HCP, it will almost certainly result in far greater karst habitat degradation at La Cantera than is suggested by the HCP.

out other unknowns." Plaintiff also contends that even FWS shared Dr. Veni's uncertainties. This contention is based on Cave 184, (which plaintiff later admitted was resolved according to protocol and therefore withdrew its arguments concerning this Cave in its arguments concerning the ESA, and the Court assumes that withdrawal applies to this issue as well), and uncertainty of species contained in the now capped Cave 3.⁶⁴ Thus, plaintiff argues an EIS is needed not only to resolve the status of

⁶⁴ In support of its assertion that FWS remained uncertain as to which species resided in Cave 3, plaintiff relies on a handwritten note/comment contained in the Administrative Record at AR 2, A158 at 1326 wherein one FWS employee wrote "Can you do that- just drop a species b/c it wasn't found again? That's new." "Can't really tell [if Cave #3 contains an additional species] w/o additional info." In its review of the record, the Court notes this handwritten comment was made in a response La Cantera Development made in a letter dated February 19, 2001, to FWS in response to FWS's letter of January 30, 2001, providing comments to La Cantera's karst invertebrate mitigation plan.

FWS stated in its letter, "[a]t one point your consultants have mentioned a *Texella* sp. from LC#3. Why isn't this mentioned or listed in the biota collections?" La Cantera's response: "FWS indicated to USAA that if Cave #3 were surveyed again according to protocols and *Texella* were not found that it could be dropped from the species list. The cave was resurveyed, *Texella* sp. were not encountered and so they are not included in the newer species list. We believe that the original *Texella* reference was inaccurate (the specimens were not saved) and that the specimen was in all likelihood an immature harvestman belonging to *Hoplobunus* sp." Off to the left of this paragraph is the handwritten note to which plaintiff refers as follows: "Can you do that - just drop a sp. because it wasn't found again?? That's new - " The other comment plaintiff refers to (i.e. Can't really tell [if Cave #3 contains an additional species] w/o additional info) is also handwritten but follows an arrow drawn after the phrase "The cave was resurveyed," and those comments are: " according to protocols? Can't really tell w/o additional info." Contained within a bend in the arrow is the handwritten question, "based on what?"

Plaintiff also points to handwritten notes contained on (according to the Index of the Administrative Record) two pages from the final Biological Opinion with a highlighted section where the Regional Office added wording from the Austin Office's final dated December 21, 2001, to support its assertion that even as late as December the Service did not even know what mitigation would be required if a previously unrecorded site were somehow discovered, questioning the mitigation that the Biological Opinion assumes in making its no-jeopardy call. The notation plaintiff cites, "is this true? I'm not sure it is for R. Inf." signed by AMS 12-21-01.

In full context, several comments are made with reference to the following paragraph:

Although no take of *Rhadine infernalis* is expected, *R. infernalis* is known from the UTSA karst region and has been adequately mitigated for within the proposed preserves; therefore, the Applicant will be covered for take of this species that may occur due to development on the Property. In the event the species is taken during construction and occupation of the Property, three karst fauna areas of equal or greater ecological value to the species within the UTSA karst region will still exist after the proposed development.

It is to the last sentence of this paragraph that the following notes appear, "sentence we drafted to address Chambers' concern." "CL - Is this true? I'm not sure it is for R. inf. AMS 12-21-01." Underneath the question is the following, "Three Fingers[,] Robbers[,] John Wagner." From this Court's review of the record and the chart which is contained within the EA/HCP, FWS determined that *R. infernalis* is contained in the Three Fingers, Robbers, and John Wagner caves.

these particular sites but also as to the rest of the property based on Dr. Veni's comments the property is far more likely to contain more endangered species than indicated. Plaintiff argues the facts of this case are similar to those found in Foundation for North American Wild Sheep v. United States Dep't of Agriculture, 681 F.2d 1172, 1182 (9th Cir. 1982), where the agency "received numerous responses from conservationists, biologists, and other knowledgeable individuals" critical of the EA and its conclusions, and Sierra Club v. United States Forest Serv., 843 F.2d 1190, 11193 (9th Cir. 1988), where there was "testimony of conservationists, biologists and other experts who were highly critical of the EAs and disputed the Forest Service's conclusion that there would be no significant effects from logging". Because the courts in these cases found an EIS must be prepared, plaintiff likewise believes their holdings applicable here.

In response, FWS contends that none of the comments are sufficient to raise a "substantial dispute" because they do not constitute evidence sufficient to "cast[] serious doubt upon the reasonableness of [FWS's] conclusions." National Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 739 (9th Cir. 2001) (quoted by the plaintiff in support of its motion for summary judgment). Although FWS recognizes that controversy is one factor to consider in determining whether an EIS needs to be prepared, the NEPA, however, does not demand scientific unanimity in order to support a FONSI. Here, FWS states it extensively examined the karst features in the development area and relied on three primary geological assessments, whose combined scope covered the entire property.⁶⁵

⁶⁵ As set forth in the "Caves on the Property" section of the EA/HCP:

Over 400 potential karst features have been evaluated on the Property. Three primary geological assessments have been performed in the past, and their combined scope has included the entire Property (Raba-Kistner 1993a and 1993b; SWCA 2000a; Horizon Environmental Services, Inc. 2000). The area surveyed by each company, as well as the scope of investigation, was different for each survey. Section 1 of the supporting documentation of the Habitat Conservation Plan (page 75 ff section 6.0, the HCP), which is available upon request, provides a summary of the karst invertebrate survey history and results, where appropriate, for each of the over 400 potential karst features identified on the Property. Where

Based on the extensive karst surveys of the property, FWS concluded in its assessment of the take that the "likelihood of discovering previously undetected habitat is considered low." AR 1, A9 at 0105. With respect to Dr. Veni's August 12 comments, FWS contends it properly declined to find these comments/criticisms sufficient to raise a substantial dispute amounting to a controversy requiring preparation of an EIS. Moreover, Dr. Veni does not indicate in his comments that he actually reviewed the geological assessments on which FWS relied nor are his comments based on a direct examination or assessment of the La Cantera property. His criticisms flow from his work on a nearby property (Camp Bullis) as compared to FWS's reliance on surveys prepared according to FWS protocol and a thorough examination of the La Cantera property. See AR1, A50 at 0511-14 (Letter dated 30 August 2001 to FWS from SWCA Environmental Consultants addressing Dr. Veni's comments concerning validity of technical data supporting HCP); AR1, A17 at 0355-64 (Appendix I - Assessment of La Cantera Cave Biota and HCP Preserve Descriptions and Appendix II - Assessment of La Cantera Cave Biota and HCP Preserve Descriptions); AR4, C18 at 2145-76 (Results of Karst Terrain Features Investigations of the La Cantera Property Northern Bexar County, Texas, prepared by SWCA Inc. Environmental Consultants, 4 December 2000).

For purposes of analyzing the highly controversial factor, "controversial" has been defined to mean "a substantial dispute [about] the size, nature, or effect of the major Federal action rather than the existence of opposition to use." Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1212 (9th Cir. 1998) (citing Greenpeace Action v. Franklin, 14 F.3d 1324, 1335 (9th Cir. 1993); Sierra Club v. United States Forest Serv., 843 F.2d 1190 (9th Cir. 1988)). In cases where courts have

possible, correlations between the features have been made and are shown in Section I. The results of all of the surveys are given in Table I-15 in Section I. All but three of the features (La Cantera caves #1, #2, and #3) identified during the course of the karst surveys are considered insignificant with regard to endangered karst invertebrate habitat.

required the preparation of an EIS, the substantial dispute was shown through the number and strength of the opposition. For example, in Foundation for North American Wild Sheep, 681 F.2d 1172, 1175 & n.10 (9th Cir. 1982), to which plaintiff cites, "numerous environmentalists responded with vigorous protests" and "[i]n addition to responses from environmentalists and biologists, the Service also received highly critical responses from the California State Department of Natural Resources and the California State Department of Fish and Game." Likewise in Sierra Club v. United States Forest Serv., 843 F.2d 1190, 1193 (9th Cir. 1988), the Sierra Club "introduced affidavits and testimony of conservationists, biologists, and other experts who were highly critical of the EAs and disputed the Forest Service's conclusion that there would be no significant effects from logging because the sequoias could be protected and their regeneration enhanced." Based on this sort of evidence, the court concluded "[t]his is the type of "controversial" action for which an EIS must be prepared."⁶⁶ See National Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 736 (9th Cir. 2001) (after publication of initial EA and before publication of EA and FONSI, Parks Service received 450 comments on the VMP, approximately 85% were in opposition to one alternative in favor of another; court noted the volume of "negative comment is more than sufficient to meet the 'outpouring of public protest' discussed in *Greenpeace Action*"). Here, the opposition does not rise to the same level.

As set forth in the Public Comment section of FWS's Findings and Recommendation

The Service published a Notice of Availability of the EA/HCP and Receipt of the Application for an Incidental Take Permit for three karst invertebrates from a Residential and Commercial Development on approximately 1,000 acres in Bexar County, Texas in the Federal Register on July 2, 2001. Publication of the notice

⁶⁶ In addition, the Court notes that the standard of review in both of these decisions was based on the less deferential "reasonableness" standard. Sierra Club, 843 F.2d at 1192; Wild Sheep, 681 F.2d at 1174. The Ninth Circuit later joined their sister circuits in holding "that review of an agency's determination not to prepare an initial EIS, made after considerable agency review of a project's environmental impact is governed by the arbitrary and capricious standard." Greenpeace Action v. Franklin, 982 F.2d 1342, 1350 (9th Cir. 1992).

initiated a 60-day comment period, which closed on August 31, 2001. Eighteen requests for copies and 12 comment letters were received.

The Findings and Recommendations also reveal, only two commentators stated an EIS should have been, and needs to be, produced for the project. AR1, A3 at 008. Moreover, plaintiff can only point to one expert who disagreed/criticized the findings by FWS, and FWS responded to those comments and provided information supporting its contentions to the contrary.⁶⁷ Given that this Court is bound by the arbitrary and capricious standard of review, it cannot find FWS acted in an arbitrary and capricious manner in determining the comments to the EA/HCP did not create a controversy or show unknown risks necessitating the preparation of an EIS. See Greenpeace Action v. Franklin, 14 F.3d 1324, 1333 (9th Cir. 1992) (recognizing previous decision upholding FWS's decision not to prepare EIS with issuance of ITP because "NEPA does not require that we decide whether an [environmental assessment] is based on the best scientific methodology available, nor does NEPA require us to resolve disagreements among various scientists as to methodology"); Surfrider Found. v. Dalton, 989 F. Supp. 1309, 1322-23 (S.D. Cal. 1998) (eleven comments to draft EA received, only 4 objections; agency not required to prepare EIS because it answered the comments, made changes and satisfied many of the concerns; court noted previous case suggested an "EIS is not required when an agency makes a good faith effort to satisfy the concerns of commentators, and, to at least some extent, succeeds); see also Indiana Forest Alliance Inc. v. United States Forest Serv., Inc., No. NA99-0214-C-H/G, 2001 WL 912751 at *11 (S.D. Ind. July 5, 2001) (requirements of NEPA found fulfilled where agency

⁶⁷ Plaintiff also notes the EPA filed objections to the "methodology used to assess water quality, vegetation impacts, and cumulative effects on water resources."

The cover letter to the so-called "objections" reflects that the EPA is suggesting that the Final EA/HCP be developed more fully in regards to the enclosed comments.

considered in the EA the issues raised but rejected same; agency given substantial discretion "in choosing how to analyze possible environmental effects").

Precedential Nature of Action

Section 1508.27(b) also provides for consideration of the "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." 40 C.F.R. § 1508.27(b)(6). Based on a comment contained in an e-mail that this HCP is the basis for those to come in Bexar County, plaintiff contends this HCP satisfies the criteria for this factor.⁶⁸ In response, FWS states this comment could just as easily be construed as meaning FWS personnel on similar projects would be able to avoid "starting from scratch." Plaintiff maintains that an EIS in this case would "go a long way to determine what this HCP of first impression should contain and what its effects will be, as it will be modeled in the future."

The purpose of section 1508.27(b)(6) is "to avoid the thoughtless setting in motion of a 'chain of bureaucratic commitment that will become progressively harder to undo the longer it continues.'" Presidio Golf Club v. National Park Serv., 155 F.3d 1153, 1162-63 (9th Cir. 1998) (quoting Sierra Club v. Marsh, 769 F.2d 868, 879 (1st Cir. 1985)). As stated by the FWS in its Findings and Recommendations, it did not believe the La Cantera project warranted an EIS based on the precedent factor because even though the permit was "setting a precedent for future permits in Bexar County regarding the nine endangered Bexar County invertebrates, it is not dissimilar from permits issued in Travis and Williamson counties for endangered karst invertebrates." Thus, this Court is unwilling,

⁶⁸ The e-mail in its entirety reads:

Unfortunately this process doesn't make best friends out of anyone involved, but it is what it is. I think everyone will be glad when it's all said and done. This will be the HCP that is the basis for those to come in Bexar and that probably made it even tougher since we were starting from scratch.

based on one comment, to find FWS was required to prepare an EIS based on precedent. Presidio Golf Club, 155 F.3d at 1163 (although Club theorized that because clubhouse was first new construction in the Presidio it would establish a precedent for what constitutes a sufficient EA, the project was a unique and independent project and did not serve to establish precedent; court found Club failed to show similar or related projects being contemplated); Surfrider Found. v. Dalton, 989 F. Supp. 1309, 1325 (S.D. Cal. 1998) (not only did plaintiff fail to develop an argument on this factor, EA in that case site-specific, and there was no indication that judicial refusal "to force the agency to complete an EIS in this project [would] enable the USMC to ratify future projects without complete adherence to NEPA; thus no cause for preparation of EIS).

Cumulative Impacts

As set forth by the court in Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1214 (9th Cir. 1998):

A cumulative impact on the environment "results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions...." 40 C.F.R. § 1508.7. Cumulative impacts may result from "individually minor but collectively significant actions taking place over a period of time." In determining whether a project will have a "significant" impact on the environment, an agency must consider "[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts." 40 C.F.R. § 1508.27(b)(7). If several actions have a cumulative environmental effect, "this consequence must be considered in an EIS."

Plaintiff believes an EIS must be prepared in this case for two reasons: (1) statements in the EA/HCP recognize that the property lies within a portion of the City of San Antonio that is being increasingly developed by commercial and residential growth which will add to water demand and an increased burden on the Edwards Aquifer Authority and SAWS to meet this demand without jeopardizing the

endangered Edwards Aquifer-dependent species";⁶⁹ and (2) the cumulative effects section contained in the EA/HCP is inadequate.⁷⁰ Plaintiff contends the EPA commented on the cumulative effects

⁶⁹ Plaintiff cites the following provisions from the EA/HCP in support of this assertion:

The Property lies within the northern portion of the City of San Antonio which is being increasingly developed by commercial and residential growth. The City of San Antonio has been expanding towards the north over the last several years because of desirable residential and commercial locations within the Hill Country and existing infrastructure. With the prospective growth comes new housing and commercial developments, improvements in infrastructure, and an increased tax base to Bexar County and the City of San Antonio.

The Property is situated within a master planned development, which includes the existing Westin La Cantera Resort and Golf Club present on its northwest side and Fiesta Texas, a theme park, present in an abandoned quarry immediately adjacent to the Property. With the increasing demands for housing and employment, the area is attractive for residential and commercial/retail development.

Together with other development occurring in the area, the Preferred Alternative will add to overall demand for water resources. Additionally, the Authority and SAWS will have an increased burden to provide water to the region (both in the aquifer region and downstream) without jeopardizing the endangered Edwards Aquifer-dependent species.

⁷⁰ The Cumulative Impacts Section of the EA/HCP provides as follows:

5.1.3 Cumulative Impacts

This section considers the past, present, and future projects, authorized or under review, that are considered to contribute to the cumulative impacts on not only endangered, threatened, and other rare species, but also on society and the human environment in the greater San Antonio area.

5.1.3.1 Vegetation

Because the Preferred Alternative would result in disturbance of vegetation, primarily Ashe juniper/live oak woodlands, it would cumulatively contribute to the loss of this vegetation type in Bexar County. Protection of 179 acres of native vegetation in the five off-site karst preserves will contribute to the perpetual protection of the native plant communities in the area.

5.1.3.2 Wildlife

The Preferred Alternative would contribute to a cumulative reduction of habitat for some wildlife species intolerant of human disturbance or presence when added to impacts resulting from other development, road construction, and other types of land use projects in Bexar County. Wildlife species associated with urban and suburban settings would likely increase, while species intolerant of development would locally decrease. However, protecting the native plant and animal communities on the karst preserves will contribute to the perpetual protection of native wildlife populations off the Property.

5.1.3.3 Listed, Proposed, and Candidate Species

The existing quality of endangered species habitat presently provided by the three La Cantera caves is not optimal. Yet, the Preferred Alternative would significantly reduce the amount of endangered karst invertebrate habitat present in the project region. This would contribute to the total reduction of R.

analysis regarding water resources ⁷¹ and even FWS appeared to believe there may be significant

exilis and *C. madla* and their habitat in the region.

Because the Preferred Alternative would protect approximately 2 acres on-site and 179 acres off-site in perpetuity, the project is expected to provide conservation benefits to the Bexar County endangered karst invertebrates.

5.1.3.4 Jurisdictional Wetlands

No jurisdictional wetland areas are known to occur on the Property, nor will any be affected off-site. Thus there are no cumulative impacts to jurisdictional wetlands.

5.1.3.5 Geologic Features and Soils

Cumulative impacts to geologic features and soils as a result of the Preferred Alternative are expected to be minor.

5.1.3.6 Land use

The Preferred Alternative would contribute to the cumulative conversion of undeveloped land to developed land in the San Antonio area. However, the Preferred Alternative would preserve 2 acres of undeveloped land on-site and 179 acres of undeveloped land off-site in perpetuity.

5.1.3.7 Water Resources

Together with other development occurring in the area, the Preferred Alternative will add to overall demand for water resources. Additionally, the Authority and SAWS will have an increased burden to provide water to the region (both in the aquifer region and downstream) without jeopardizing the endangered Edwards Aquifer-dependent species.

5.1.3.8 Air Quality

The Preferred Alternative will contribute to degradation of air quality in the San Antonio area primarily through an increase in automobile emissions. The degree of impact will depend upon air quality requirements for construction activities and automobiles. Continued development of the area will likely result in impacts on air quality at some time in the future.

5.1.3.9 Water Quality

The increase in runoff and infiltration containing pollutants and pesticides will add to that produced by other existing or planned development in the area, resulting in reduction in water quality in the Leon Creek watershed and Edwards Aquifer over time. However, the 148 acres of off-site mitigation lands (Canyon Ranch and Hills and Dales preserves) are located on the recharge zone and will contribute to the overall reduction in development over the recharge zone.

⁷¹ Contained in the August 30, 2001 letter from the EPA to FWS is the following comment noted by the plaintiff (AR 1, A51 at 0527) in support of its position:

Section 5.1.3.7 Water resources

p.15: *The construction of a school building and associated structures on the subject property is not likely to affect water resources.*" This section does not describe cumulative impacts; that is, the incremental

cumulative impacts.⁷²

In response, FWS contends plaintiff failed to substantiate its claim by failing to offer evidence of allegedly significant cumulative impacts that were overlooked or any deficiency in the analysis that was provided. The mere fact that FWS recognized the development would add to the overall demand for water resources and increase the burden on SAWS to provide water without jeopardizing the endangered Edwards Aquifer-dependent species does not amount to a finding of significance which would require an EIS. FWS maintains it provided a sufficiently thorough analysis of cumulative impacts and found the issuance of the ITP in conjunction with other actions would not have a significant impact. The Court agrees.

Plaintiff had the burden to show this Court "exactly how the [FWS's] decision-making was flawed." Hoosier Env'tl. Council v. United States Army Corps. of Eng'rs, 105 F. Supp. 2d 953, 981 (S.D. Ind. 2000). Although the EA did not make elaborate findings, the Court has not been pointed to anything in the record to suggest a need for a more extensive analysis. Sierra Club v. United States

impact of the proposed project together with impacts of past, present and reasonable foreseeable future actions.

It appears the reference to a school building was not applicable to the EA/HCP at issue here. Contained in the Administrative Record, AR, A51 at 0534 is the FWS's response to this comment. That page reflects the circling of "school building" with a question mark and a handwritten note, "is this in our EA?" An additional handwritten response off to the side provides, "No, cut & paste."

⁷² In support of this assertion, plaintiff again refers the Court to the e-mail found in the record at AR 1, A44 at 0493, which is an e-mail from Michelle Shaughnessy to Leslie Dierauf and forwarded to Christina Longacre (all employees of FWS) in which Michelle writes:

I personally have struggled with the cumulative effects analysis in the NEPA document and they seem to have focused in on this issue. I would like to talk to Don Peterson about this point, so I will get back to you. One question, does the County/State have some sort of land use planning document for the area?

Plaintiff has not pointed to any other evidence in the record, however, to indicate that Ms. Shaughnessy's personal struggle was shared by FWS. Moreover, plaintiff has not cited any authority requiring an EIS based on a "personal struggle."

Forest Serv., 46 F.3d 835, 839 (8th Cir. 1995). Although plaintiff questions the extent of the cumulative impacts considered by the FWS, plaintiff has not pointed to any facts in the record which demonstrates an abuse of discretion or an arbitrary and capricious decision. Hoosier Env't'l, 105 F. Supp. 2d at 981 (instead of meeting burden of showing how agency's decision flawed, plaintiffs merely questioned extent of cumulative impacts considered and failed to show agency abused its discretion).

Destruction of Significant Scientific Resources

Plaintiff next asserts pursuant to 40 C.F.R. § 1508.27(b)(7) , an EIS is required for projects that cause the "destruction of significant scientific ... resources." It appears plaintiff meant to refer to § 1508.27(b)(8) for this proposition because that section requires consideration of "the degree to which the action may cause loss or destruction of significant scientific ... resources." Again relying on Dr. Veni's expertise, plaintiff supports this argument with the following administrative record reference in which Dr. Veni, in his August 12 comments, states the proposed HCP does not meet recovery plan standards:

This standard [the recovery plan for the related Austin species requiring all karst fauna areas within a region to be protected if fewer than three exist] was established for the endangered cave ecosystems and not just the individually listed species. In doing so, it prevents the need to list other species that may be even rarer than those listed. An excellent example of this occurs at La Cantera Cave No. 1 and La Cantera Cave No. 2. Both caves contain the rare troglobitic earwig-like *Mixojapyx* species. It is known from only four other caves in Bexar County, only one cave each from Comal, Kimble, Menard, and Travis counties, and is probably a complex of related but separate species (Veni and Reddell, 1999). The occurrence of *Mixojapyx* in the La Cantera caves is their only known occurrence in the UTSA KFR and none of the KFAs proposed in the HCP are known to contain that rare species of concern.

AR1, A69 at 639-40. Plaintiff maintains, without authority however, that although these species may not receive protection under the ESA, an EIS is required to study the effect the La Cantera development would have on the development of that species because "such a large percentage of its existing population would be destroyed by the development."

FWS in response asks this Court to show deference to its judgment that through the conservation preserves, the project is expected to provide conservation benefits to the Bexar County endangered karst invertebrates. Plaintiff's conclusory statement that the earwig-like *Mixojapyx* species is a significant scientific resource that will be destroyed does not show FWS was arbitrary and capricious in its determination. Because of the standard of review the Court must apply in this case and because plaintiff has failed to provide any authority for its argument, the Court will give deference to the FWS's decision on this factor as well.

Adverse Effect on Endangered Species

In its final argument, plaintiff states, relying on its previous discussion in the motion and without reference to authority or the record, that "it is indisputable that the action 'may adversely affect an endangered or threatened species'" thus requiring the preparation of an EIS even if the development would not "jeopardize" the species for purposes of the ESA. 40 C.F.R. § 1508.27(b)(9). FWS believes it properly evaluated the degree to which the issuance of the ITP would adversely affect an endangered or threatened species and determined that the project is expected to provide conservation benefits to the Bexar County endangered karst invertebrates citing AR 1, A9 at 0110. Because its exercise of judgment was rational, FWS claims its determination that there no are significant impacts requiring the preparation of an EIS was not arbitrary or capricious.

40 C.F.R. § 1508.27(b)(9) requires the assessment of the "degree to which the action may adversely affect an endangered or threatened species." The record supports FWS's assertion that it assessed the degree to which the ground beetles and spider would be adversely affected and determined there would be "no significant impact" because of the on and off-site mitigation areas/preserves. Although plaintiff disagrees with this analysis, the Center has not brought forth evidence that this decision was arbitrary or capricious.

Accordingly, in reviewing FWS's decision under the "arbitrary and capricious" standard, this Court finds FWS has in fact taken a "hard look" at the effects of the proposed development and the record supports the finding that FWS has discharged its obligation in performing a thorough environmental analysis before concluding "no significant impact" exists pursuant to the NEPA. In addition, the record also supports a finding that impact, if any, was reduced to a minimum by the mitigation procedures implemented in the EA/HCP. Therefore, FWS was not required to prepare an EIS. Sierra Club v. Babbitt, 15 F. Supp. 2d 1274, 1283 (S.D. Ala. 1998) (listing criteria for consideration of decision not to issue EIS was arbitrary or capricious).

Orders of the Court

The disposition of the pending motions is as follows:

1. The Motion for Summary Judgment by Plaintiff Center for Biological Diversity (docket #27) is DENIED.
2. La Cantera Development Company's Motion for Summary Judgment (docket #29) is GRANTED.
3. Defendant United States Fish and Wildlife Service's Cross Motion for Summary Judgment (docket #30) is GRANTED.
4. Plaintiff's Motion for Temporary Restraining Order and Preliminary Injunction still remain as pending on the Court's docket but were orally DENIED at the hearing held on January 17, 2002.

It is further ORDERED that defendant-intervenor La Cantera and its successors shall prepare and submit an annual report to this Court and FWS setting forth what La Cantera and its successors have done to fulfill its responsibility to maintain the habitat set aside pursuant to the Incidental Take Permit. The report shall be filed on or about **April 22** each year. FWS shall exercise due diligence in follow through inspection of the set aside properties.

IT IS SO ORDERED.

The Final Parameter: Be Careful For What Is Asked

The dedicated employees of the United States Fish and Wildlife Service did their best to strike a reasonable balance between the mammon worshipers and the least of those among the species, notwithstanding the penurious resources we give Fish and Wildlife Service to safeguard us from ourselves. To the extent the Center for Biological Diversity would prefer more protection, the law and standard of review which the Court is bound to apply are on the side of the developers and shoppers.

Counsel for La Cantera hit a stand-up triple and the real estate magnates are winning thus far.

But Mother Nature bats last.

She is a jealous manager of her players.

It is the top of the eighth.

SIGNED this _____ day of May, 2002.

FRED BIERY
UNITED STATES DISTRICT JUDGE