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625 EAST 10TH STREET
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January 29, 2015

Mr. Alan Glen
Sedgwick Law
919 Congress Ave., Ste. 1250
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Mr. Jimmy Dissler, Executive Director of Capital Improvements
Leander Independent School District
P.O. Box 218
Leander, Texas 78646-0218

RE: Leander Independent School District Draft Habitat Conservation Plan Application
and Draft Environmental Impact Statement

Dear MSSRs Glen and Dissler:

I am writing this letter to provide comments regarding the recently filed Leander Independent School District draft Habitat Conservation Plans Application. Because the draft application has the potential to affect the Balcones Canyonlands Conservation Plan (BCCP) and the Balcones Canyonlands Preserve (BCP) I requested the draft application from the U.S. Fish and Wildlife Service under the Freedom of Information Act. The attached document includes not only my comments, but also those of staff with the City of Austin Watershed Protection Department and Travis County BCP. The comments are provided with the intent of assisting LISD with its effort to address access and safety concerns for its campuses while avoiding damage to BCCP.

An overriding concern is that the draft application appears to request a separate federal permit wherein LISD participates in BCCP by paying minimal participation certificate fees for incidental take within the designated preserve.

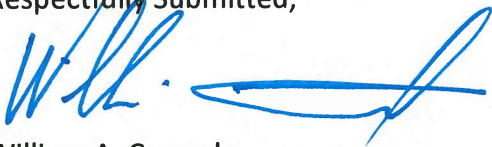
LISD is not an infrastructure service provider as defined by Appendix B of BCCP, thus cannot use the corridors or participate in BCCP as a provider. If LISD wishes to pursue participation in BCCP, becoming a BCCP managing partner would be an appropriate route and something LISD should consider. To become a managing partner, LISD would: (1) acquire land in the permit area for their project, (2) withdraw that land from BCCP, and (3) acquire, dedicate, and manage other land in the macrosite as provided for in a managing partner agreement.

BCCP participation fees provide for use of BCCP mitigation to mitigate activities *outside* the preserve. Uses of BCCP Participation fees are not authorized for mitigation of take *inside* the preserve.

The draft application, if implemented as proposed, would result in increased levels of take above that authorized by the BCCP federal permit and consequently, reduced levels of mitigation provided by BCCP. Approval and implementation of this plan would require BCCP to amend its federal permit and HCP. The amendment process is timely and expensive, and the prospect of amendment for the LISD permit has not been discussed and certainly not approved by the BCCP partners.

My greatest concern is this application in its current draft form could cause irreparable harm to the Balcones Canyonlands Conservation Plan. I feel certain that is not the intent of LISD and I am hopeful that a way to achieve the LISD safety goals without harming the BCCP can be found.

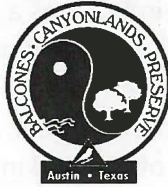
Respectfully Submitted,



William A. Conrad
BCCP Coordinating Committee Secretary

Attachment: Conrad, William A, Draft Document Review Comments: Habitat Conservation Plan and Environmental Assessment For an Access Road to the Leander Independent School District Vandegrift and Four Point Campus, January 16, 2015

CC: Mayor Steve Adler
Precinct 3 Commissioner Gerald Daugherty, Member, BCCP Coordinating Committee
Adam Zerrenner, Member (Ex Officio), BCCP Coordinating Committee
Jon White, Travis County BCP
Robert Goode, Assistant City manager
Daryl Slusher, Assistant Director, Austin Water Utility
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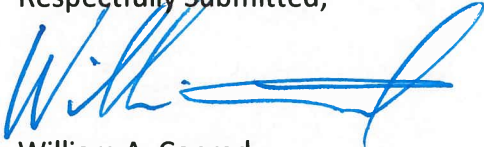
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Document Review Comments
Habitat Conservation Plan and Environmental Assessment
For an Access Road to the Leander Independent School District
Vandegrift and Four Point Campus

William A. Conrad CPRM
BCCP Coordinating Committee Secretary

January 29, 2015

General Comments on the Draft HCP and EA

Permit Issuance Criteria and Impacts to Existing 10(a)(1)(B) permits

1. According to the USFWS's 1996 Habitat Conservation Planning Handbook, appropriate permit applicants (in accordance with General Permit Issuance Criteria) include:
 - "...the land or other natural resource owner who proposes the project or activity and is responsible for implementing the HCP."
 - "For planning efforts involving numerous property owners and activities, the permittee is usually a local public agency--e.g., a city or county government or several local agencies acting jointly."
 - "The permittee must therefore be capable of overseeing HCP implementation and have the authority to regulate the activities covered by the permit."

In the case of the LISD application, LISD is neither the landowner nor have they submitted their application in coordination with the City of Austin, Travis County, or other affected landowners. The draft HCP seems to propose that LISD will acquire a federal permit for the permit area and activities within it, but will not actually acquire or control any land in the permit area. The covered activity (road construction and operation) is proposed to occur on land not currently owned or leased by the applicant. It would be premature for the USFWS to issue an incidental take permit prior to the land actually being acquired. The footprint of the project could change based on the land ultimately acquired, and the covered activity could be altered as a result of deed or lease restrictions imposed during acquisition. Furthermore, according to the statements in the first paragraph of section 7.5.2, LISD may not have authority under statutes of the State of Texas to enter into an HCP.

2. The Endangered/Threatened Species Permit Issuance Criteria require that the applicant ensure adequate funding for the HCP and that USFWS receive such other assurances as may be required that the HCP will be implemented. LISD's draft HCP does not address the costs associated with the proposed road nor how these costs will be paid for. Thus, it is not clear from the draft HCP that LISD has adequate funding for both the proposed project and implementation of the HCP.

Approval and implementation of this plan would require BCCP to amend its federal permit and HCP. BCCP or its partners have neither been consulted about nor agreed to this responsibility. Furthermore, it is possible and perhaps likely that such an amendment would require BCCP to increase its overall level of mitigation for species covered by its permit and seek coverage for additional species in order to allow take or changes to authorized levels of take. The

amendment process might require a minimum investment by BCCP partners of \$2 million. The costs for additional mitigation acquisition and additional management are incalculable at this point.

The Current LISD campus adjacent to this proposed plan area is part of an area mitigated by a separate HCP (Ribelin Ranch). The proposed action will reduce the level of mitigation and increase the amount of take for that permit. That permit and HCP must be amended in order to approve and implement the LISD HCP as well.

The proposed LISD HCP will reduce the level of mitigation and increase the level of take in the area covered by a Section 7 Consultation and Biological Opinion for the 3M campus and its associated CWA Section 404 permit. That permit and Biological Opinion must be amended in order to approve and implement the LISD HCP as well.

The proposed action will reduce the level of mitigation and increase the amount of take for the Four Points HCP and permit. That permit and HCP must be amended in order to approve and implement the LISD HCP as well.

Any action to authorize this project under the Act should keep BCP whole. LISD is proposing to remove or alienate between twenty four and 255 acres from BCP. They are proposing to mitigate this with a financial payment to BCCP of \$277,700.00. The payments LISD calculated are based on BCCP participation fees; however LISD is ineligible to participate in BCCP with this project as it is proposed. Recent cost experience for land acquisition in this watershed is \$40,000 per acre. LISD should mitigate this project by withdrawing the project area from BCCP and provide new land in the Bull Creek Macrosite to replace it.

Additionally, acreage included in the Plan Area from the Travis County Sam Hamilton Preserve (East) was purchased with U.S. Fish and Wildlife Service grants approved from Section 6 (ESA) funds. Including this area in the proposed LISD Plan Area would require the School District to repay these funds to the United States.

3. The Endangered/Threatened Species Permit Issuance Criteria require that the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild. In the case of the Golden-cheeked Warbler (GCWA), issuance of the Balcones Canyonlands Conservation Plan (BCCP) permit allows for the loss of an estimated 74% of the GCWA's habitat in Travis County. The LISD project would increase this estimated take and decrease the amount of mitigation, with little undeveloped land remaining to make up for that loss. If additional lands cannot be purchased and dedicated to BCP in a manner consistent with BCCP, this could jeopardize the GCWA population within Travis County and the BCCP permit.
4. The draft HCP does not address impacts to existing permits, including the BCCP. The BCCP identifies Bull Creek as the highest priority macrosite that is critical to the success of the BCCP. The BCCP requires a minimum of 5,200 acres be acquired within the Bull Creek macrosite with a target acreage goal of 5,638 acres. As of November 2014, the Balcones Canyonlands Preserve (BCP) includes 5,021 acres within the Bull Creek macrosite, which is 179 acres short of the minimum

acreage requirement and 617 acres short of the target acreage. Permitting the proposed roadway would result in the loss of additional acreage from this macrosite and increase the amount required to meet the minimum and target acreages. Since there is little undeveloped land left within the Bull Creek macrosite, all of the lands that are currently within the BCP are critical to meeting the minimum acreage requirement. Conditional payment of funds to the BCP are proposed as mitigation measures in this HCP. Mitigation performed by other entities (in this case land protected by BCCP) cannot be used as mitigation for the proposed covered activities.

5. The BCCP requires a minimum of 2,000 acres of habitat managed for the benefit of Black-capped Vireo (BCVI). The BCP currently manages about 1,762 acres of BCVI habitat, and is short about 238 acres. Woodland openings along powerline corridors provide an opportunity to manage for BCVI habitat, as demonstrated by the BCVI territories on the Ribelin and Kent Butler tracts. Permitting the proposed roadway would result in the loss of additional BCCP-managed BCVI habitat acreage and mitigation, and increase the amount BCCP is responsible for to meet the minimum acreage requirement.
6. LISD's draft HCP does not propose purchasing additional habitat acreage needed to ensure compliance with the BCCP, and therefore appears to place the burden on the BCCP permittees (City of Austin, Travis County) to mitigate for their project and maintain compliance with the BCCP.
7. LISD's draft HCP states that the GCWA and BCVI habitats that would be potentially affected by the proposed road are already exposed to the adverse impacts of existing developed land uses in the vicinity. This is not an accurate statement. All of the BCP has development surrounding it.

Furthermore, a permanent road bisecting the preserve is a much more intensive impact than an electric utility infrastructure corridor. The utility providers currently work with BCP managers to avoid entering the corridor when the endangered birds are on site. The infrastructure providers also collaborate with the BCCP Secretary to minimize impacts from infrastructure maintenance so that they are at or below levels specified in BCCP Appendix B.

8. It is not possible to determine from the submitted schematic drawings what environmental resources protected by City of Austin regulations would be adversely impacted by the proposed project. The project area contains multiple small springs and canyon rimrocks and other potential critical environmental features as defined by City of Austin Code that require buffers from development. It is not clear from the included drawings that the proposed project will comply with City of Austin land development regulations and could be permitted by the City of Austin as proposed.
9. The draft HCP is deficient in terms of providing a quantitative analysis of potential impacts from the covered activities on the covered species. Furthermore, the draft HCP does not consider available City of Austin monitoring data pertaining to *Eurycea tonkawae* and does not provide a quantitative assessment of proposed measures to mitigate and minimize potential impacts.
10. City of Austin salamander monitoring data and publications that are directly applicable to the covered species are not adequately considered. HCP Table 6 presents estimates derived from a graph of published City of Austin data. Quantitative analysis using up-to-date monitoring

information is critical in assessing the potential impact of the covered activities, and City of Austin monitoring data is freely available via the City of Austin website or by request.

11. The draft HCP appears to consider each critical habitat unit (CHU) as though it contained a single, separate population of JPS. In reality, JPS individuals at these sites are part of a larger metapopulation connected by migration and gene flow at or below the surface. The loss of a single subpopulation occupying a CHU reduces the connectivity of the broader metapopulation. Population connectivity is important for maintaining the evolutionary potential for adaptation to a changing environment and thus for recovery of the listed species.

Incidental Take Analyses

12. LISD's draft HCP provides take estimates for the GCWA and BCVI, but does not explain how these estimates were derived. Based on our preliminary GIS analyses, we estimate that the proposed road encompasses about 14.6 acres of woodland. An additional 61.8 acres of woodlands occur within 300 feet of the proposed road. Since habitat for the BCVI and GCWA overlap within the BCP, and the powerline corridor is being managed as BCVI habitat and to maintain GCWA habitat, the estimated direct and indirect take should be the same for both species. Based on our rough calculations, this would be 14.6 acres of direct take and 61.8 acres of indirect take for the GCWA and BCVI. This combined take estimate (76.4 acres) is higher than what is estimated in the draft HCP for the GCWA (59.1 acres) and the BCVI (10.4 acres).
13. The proposed roadway would also convert occupied woodland to impervious cover. The impacts would include year-round traffic and artificial lighting. In addition to direct and indirect take estimates, this habitat conversion would effectively isolate the canyon head to the south of the proposed road. Based on our preliminary GIS analyses, we estimate about 90.5 acres of GCWA habitat south of the proposed road (the draft HCP estimates 89 acres). Because this area would be isolated from the remaining high quality habitat, it should no longer be considered high quality habitat. Thus, the entire area south of the road should be considered adversely affected and should be included in the estimated amount of take for the GCWA.
14. Impacts that the draft HCP needs to address include vehicular and pedestrian traffic, artificial lighting, effects of the bridge to the underlying closed canopy woodlands (e.g., reduced natural light, altered hydrology), invasive species (tawny crazy ants, red imported fire ants, non-native plants), proposed "pest-suppression and prevention," and maintenance of the proposed road and associated infrastructure.

Alternatives Analysis

15. LISD's draft HCP and EA state that the proposed project is needed to provide an additional access road and alleviate traffic congestion. Information on the original site selection process is needed to understand why this site was selected for a school campus given the safety concerns expressed in the HCP, and what has changed since then. This background information would help to better understand the project purpose and need, and possible alternatives.
16. More detail is needed regarding why access through the 3M campus is not a feasible alternative. LISD's condemnation authority applies to 3M as well as to Travis County and City of Austin, so this option needs to be included, along with measures to address 3M's concerns regarding security and

liability. The Alternatives Analysis should also include consideration of a combination of the alternatives listed in Table 9 of the draft HCP as well as consideration of relocation to an alternative site that does not pose the concerns expressed in the draft HCP and EA.

Wildfire

The assertions regarding wildfire risk are not supported by publically available data. In November 2014 the Austin Travis County Community Wildfire Protection Plan (CWPP) was accepted by Austin and Travis County. The CWPP specifically evaluated wildfire risk associated with the LISD campuses that the proposed action is intended to support (exhibit A). Risk for these campuses was generally rated as low or lowest for both radiant heat risk and spotting, except for areas near athletic fields on the northwest side of the campuses. Furthermore, the proposed road alignment traverses areas with wildfire risks rated as high or highest, thus placing road users at more extreme risks from using the road than they would experience at the LISD campuses. Creating and operation of the proposed road would also introduce ignition risks to areas that do not have those risks today where the wildfire ignition potential is rated high by the CWPP.

Specific Comments on the HCP

Page 1, section 1.1, Context of the Proposed Activities: The draft HCP states that the Texas Transportation Institute and the Arizona Dept. of Transportation recommend school access from at last two adjacent streets and cites other studies that recommend more. There are actually two streets that currently go into the school, both of which exit onto 2222. If there was a need for more, this should have been addressed before the school was built. LISD facilities construction began in late 2008 and was largely complete by late 2009. At least two cited references (Cooner et al. 2004; ADOT 2006) suggesting multiple access points for public schools were published well before initiation of construction of the two schools. LISD should have been well aware of site access limitations of the site selected for the schools. Such a concern should have been recognized and considered many years ago. Additionally, the HCP refers to 600 adjacent residential units, but it is not clear if these units will be able to access the proposed road in any or all conditions.

Page 3, section 1.1, Context of the Proposed Activities: The HCP claims that LISD is responding to the primary need to facilitate prompt emergency ingress and egress during wildfire and other emergency situations and evacuations. There is already an existing road through the 3M campus to the fire station that provides emergency access. LISD has not documented whether or how 3M has denied access to emergency responders.

Page 3, section 1.1, Context of the Proposed Activities: The draft HCP states that the corridor was intended to receive roads to support population growth. LISD has previously been notified in August of 2013 that this is a misinterpretation of the BCCP permit and they have not appealed that decision. If roads were built on all the BCP infrastructure corridors, the preserve would no longer support viable Golden-cheeked warbler habitat. This proposed action would result in a decrease in mitigation and an increase in take for the BCCP.

Page 3, section 1.1, Context of the Proposed Activities: The draft HCP states that the BCCP already mitigates for impacts to the GCWA, BCVI and listed karst invertebrates resulting from the placement of new infrastructure. This is incorrect. These projects are required to mitigate for habitat impacts at a 5:1 ratio. Appendix B of the BCCP HCP clearly states that expansion of these corridors must be offset by

service providers not associated with BCCP permit holders or managing partners. It also states that compensation for impacts on the preserves must be negotiated with the Coordinating Committee Secretary.

Page 3, section 1.2, Regulatory Context, first paragraph, first line: Typo reads project, should read *project*.

Figure 2 in the draft HCP indicates that the proposed roadway does not stay within the delineated BCCP primary infrastructure corridor.

Page 5, section 2, Covered Activities: The draft HCP states that a sidewalk will be built along the road. Pedestrian access along the road will greatly increase the incidence of trespass into the preserve, even if a fence is constructed. They also state that they will be installing lighting, and the potential impacts of pedestrian traffic and lighting on wildlife in the preserve is not addressed.

Page 6, section 2, Covered Activities, third paragraph: – The bridge will require digging piers 50 feet below the surface. Recent bore holes drilled by LCRA for the rebuild of the T 160 transmission line have hit voids in this vicinity at depths of only 11 feet. The potential impact of these piers on karst features and groundwater flows has not been adequately addressed. The HCP should provide goals and descriptions of the processes that will be used to address what happens if a karst feature or karst habitat is encountered during construction.

Page 6, section 2, Covered Activities last paragraph: The draft HCP states “Instead, grade for the road will be established with the placement of fill....” The importation of fill material may inadvertently introduce non-native invasive species such as the tawny crazy ant (*Nylanderia fulva*), as well as alter runoff and hydrologic characteristics. The applicant needs to show what steps they will take to minimize these risks. The use of fill is also mentioned on page 29, section 6.3, again with no mention of plans to minimize the chances of accidentally introducing invasive species. A roadway constructed on fill will create a visible and physical barrier to wildlife movement within the corridor that is not currently present.

Page 6, section 2, Covered Activities: Statements regarding vegetation under the proposed bridge are not clear and potentially misleading. It should be clearly stated that all vegetation in the Critical Water Quality Zone as defined by City of Austin regulations will be left undisturbed but vegetation below the remaining 520 ft of the bridge will be either re-vegetated or cleared and replaced with rock as stated in the Atkins Appendix (page 7 of 9 stating “The area under the bridge side spans will need to have the trees cut...”) and in the Environmental Assessment (page 39). Since the Jollyville Plateau Salamander spring habitats tend to have tree canopy providing shade and seasonal nutrient input (leaves) the applicant should analyze if any vegetation removal or replacement in the area of Upper Ribelin Spring 12 will negatively impact listed salamanders. Vegetation under bridges generally does not fare well due to limitations on light and/or water.

It is stated in multiple locations in the HCP and EA that “temporary retaining walls will capture any runoff from work zones and prevent untreated release of stormwater.” No information or supporting documentation is provided as to the volume of stormwater that will be retained behind the retaining wall or what level of stormwater treatment will be achieved by the retaining wall, which is a non-standard stormwater runoff treatment control.

No specific information is provided on the types of soil erosion prevention and control BMPs that are proposed for use.

Page 8, section 2, Covered Activities: The HCP should explain why the road will be built to Travis County standards and if those standards are superior to City of Austin or State of Texas standards. The maintenance plans for road and adjacent vegetation need to be described to assess potential impacts on protected species. It should be noted that mowing right-of-way to maintain moderate vegetation height is not conducive to establishing native grasses and could lead to loss of vegetation, encroachment of invasive vegetation, and increase in soil erosion and sedimentation of downstream salamander habitat. Construction phase activities generally present the greatest threat of transport of suspended sediment off-site. Inspection and enforcement plans to ensure that all controls are constructed according to standards of the HCP, plans for how controls will be modified to reflect actual field conditions while still complying with HCP standards, and maintenance plans for controls need to be described in the HCP.

Page 9, section 2, Covered Activities: Street sweeping and mowing are discussed, but the potential impacts of these ongoing disturbances to the wildlife in the preserve are not addressed. Street sweeping also has the potential to impact JPS habitat in the creek below the bridge. Monitoring to be performed by LISD to document take of salamanders, both during construction and operation, is not clearly described. Spring names listed in this section do not correspond to the names shown on Figure 3. Additionally, there is an unnamed spring in a small draw on the east side of the canyon directly below the north-most power transmission line that appears to be directly under or immediately adjacent to the proposed project. This spring should be protected from impacts of construction and operation and should also be investigated for JPS. The direction of groundwater migration should be investigated with tracing studies prior to issuance of the HCP to facilitate a more complete evaluation of the proposed activities on the covered species.

Page 15, section 5.1.2, Black-capped Vireo: The draft HCP states that suitable BCVI habitat does not currently exist in the Plan Area (see also Page 23, section 6.2.2). This is incorrect. Travis County biologists have documented BCVI activity and territories inside the permit area as recently as 2013. These observations should be included in Figure 6.

Page 15, Section 5.1.3, Jollyville Plateau Salamanders: Not all the springs containing JPS discharge from the Northern Edwards Aquifer and the ones in the Plan Area discharge from the Walnut Formation, even according to the geologic map contained in Figure 4.

Page 17, Section 5.1.3, JPS: The calculation of affected critical salamander surface habitat as a subset of the USFWS rule-designated critical habitat based on an assumed channel width is completely contrary to the actual critical habitat rule, and is not supported by scientific information or previous USFWS precedent of which the City of Austin is aware. Based on City of Austin monitoring data and analysis, actual salamander surface habitat is larger than the critical habitat area designated by USFWS rule. The use of habitat area as a surrogate for impact to salamanders does not consider any differential quality of existing salamander habitat. City of Austin salamander monitoring data clearly demonstrates variable abundance between different sites. A jeopardy determination cannot be made solely on the basis of area of habitat impacted when existing population monitoring data exists and is not considered in the analysis.

The HCP states "... the true area of surface critical habitat within the Plan Area, assuming a channel width of 10 feet, is approximately 0.24 acre." It is unclear how "true" habitat is defined in the HCP. Critical habitat has a very specific definition. It is not the same as the portion of the stream

occupied by salamanders, which is only a subset of critical habitat. The definition of critical habitat according to USFWS is: "Specific geographic areas, whether occupied by listed species or not, that are determined to be essential for the conservation and management of listed species, and that have been formally described in the Federal Register."

Page 18, section 5.2.1, Karst Invertebrates: The draft HCP states "LISD is not aware of any information documenting the existence of such [karst] features within the infrastructure corridor, despite coordination with BCCP staff for information relevant to achieving ESA authorization for the proposed road. Therefore, LISD believes that the likelihood of karst features with identifiable surface expression and occupancy by one or more of the listed karst invertebrates occurring within the infrastructure corridor is low." The draft HCP also mentions the lack of known karst features within the proposed permit area and thus why they are not applying for an incidental take permit for endangered karst invertebrates (page 29, 6.2.4, page 39, 6.4.4).

Contrary to these statements, Oxalis cave is inside the infrastructure corridor and inside the permit area. Though this cave is not known to harbor endangered karst invertebrates, it is possible that they may occur there given the lack of survey attempts for showing presence or absence. It is our understanding that this feature has been surveyed 2 times, and current USFWS protocol calls for a minimum of 14 survey attempts (U.S. Fish and Wildlife Service. 2014 Requirements for Conducting Presence/ Absence Surveys for Endangered Karst Invertebrates in Central Texas). Without fulfilling these USFWS requirements, a determination of absence is not supportable.

Another cave is also either within the proposed permit area, or very close to the boundary. The feature is known as RI-1, and is a confirmed location for the endangered Bee Creek Cave harvestman (*Texella reddelli*).

It is also probable that more karst features will be discovered during the clearing and construction phase since much of the permit area lies within Karst Zone 1 habitat (169.3 acres). This total (169.3 acres) does not match the total listed in the accompanying EA (page 17, section 2.1.3.1 third paragraph, states "The Action Area includes 231.0 acres of Karst Zone 1...." The draft HCP also mentions the lack of known karst features within the proposed permit area and so therefore, why they are not applying for an incidental take permit for endangered karst invertebrates (page 13, section 5 and page 29 section 6.2.4). Comments above apply to these sections as well.

Page 20, section 6.1, Existing Adverse Impacts: The draft HCP states that "habitats for all federally listed species within the Plan Area already experience adverse impacts from existing developed land uses". Most of the "plan area" is currently not disturbed other than by the infrastructure corridor. The corridor consists of an access road, restored BCVI habitat, and GCWA habitat between and under the transmission lines. The infrastructure providers work with the preserve owners to avoid access when the birds are present. The infrastructure providers also collaborate with the BCCP Secretary to minimize impacts from infrastructure maintenance so that their disturbance is at or below levels specified in BCCP Appendix B. The construction of a permanent road with a large bridge, daily traffic, mowing, street sweeping and foot traffic on the sidewalk is a much greater impact that what is currently found or authorized in the Plan Area. The 16 transmission towers do have footings that extend into the subsurface but generally less than 15 ft (based on the LCRA power poles currently being excavated). This is substantially smaller volume of disturbed area than the 50 ft deep bridge piers proposed by the LISD project and the LISD road bridge piers are located much closer to JPS-inhabited springs.

Page 22, section 6.2.1, Impacts of the Covered Activities, Golden-cheeked Warbler: The applicant attempts to negate the value of the GCWA habitat within the powerline *corridor* claiming it already experiences adverse impacts and that the proposed road would only “incrementally increase the magnitude of these existing effects.” However, active GCWA nests have been found within the powerline corridor on the Kent Butler tract in an area that currently receives similar impacts as the proposed road site. Road development would completely and permanently remove acreage from GCWA use. The proposed project would also isolate approximately 90.5 acres of GCWA habitat south of the road, thus compromising its current habitat value.

The proposed LISD HCP also asserts that any golden-cheeked warblers displaced by direct or indirect effects from the proposed action will simply relocate to adjacent habitat within BCP. However, the draft LISD HCP fails to document and recognize that the adjacent habitat is already heavily occupied with GCWA territories and that adjacent habitat might not be available for occupation without additional adverse effects on protected species already present in adjacent habitat.

Page 22, section 6.2.1, Impacts of the Covered Activities, Golden-cheeked Warbler: The draft HCP and EA states several times (see also section 6.4.1.1 and p. 45 of the draft EA) that City of Austin data demonstrates that the GCWA can disperse up to 10 miles; however, they do not report that over 90% of the resighted birds return to the same locations, indicating high site-fidelity for this species. Further, dispersal does not negate negative impacts to existing habitat, the BCP, nor the BCCP permit.

Page 25, section 6.2.3.1, Impacts of the Covered Activities, Jollyville Plateau Salamander, Surface Hydrology and Water Quality: The draft HCP discusses how treated storm flow will be captured in a bioretention basin, but does not address how that basin will affect current recharge patterns to the creek and groundwater. Treated storm flow discharged to the ground can still enter karst features and lead to contamination. They also discuss 87 percent removal of TSS, but do not address other potential contaminants that could harm the Jollyville Plateau Salamander (JPS) such as heavy metals. The draft HCP also discusses bringing in fill, but doesn’t address impacts from invasive species such as the Tawny Crazy Ant, Red-Imported Fire Ant, and invasive plants.

Page 25, Section 6.2.3.1, Surface Hydrology and Water Quality: The HCP states that the ground surface under the bridge span will be re-vegetated with native plants. The HCP does not state how these plants will survive in a reduced light environment with limited rainfall. Examples of vegetative dead zones below bridges in Austin are numerous.

The draft HCP does not consider changes in stormwater runoff volumes or velocities as a result of the covered activities and does not consider the resultant potential impacts to salamander habitat. Stormwater runoff velocities from the proposed controls should be calculated, and should include assessment of soil water capacities because during saturated conditions following rain events infiltration of stormwater runoff even as sheet flow would be severely limited. Construction phase activities generally present the greatest threat of transport of suspended sediment off-site. Inspection and enforcement plans are not described in the HCP to ensure that ALL controls are constructed according to standards, modified to reflect actual field conditions while meeting HCP standards, and maintained after storm events.

The draft HCP contains assertions that the road is “straight downhill and naturally minimizes the interception of offsite flows...”. Based on an examination of the topographic map shown in Exhibit A of Appendix A, the road is clearly not straight downhill but crosses multiple high points and changes in slope direction. The proposed roadway, particularly if constructed on fill, will alter existing surface

water flow paths. Alteration of surface water flow pathways, loss of infiltration due to addition of impervious cover, and concentration of flow into stormwater structural controls, will likely result in changes in the baseflow fraction and peak stormwater runoff rate that will could adversely impact salamander habitat. The draft HCP does not include an assessment of these changes and does not include information as to how such changes can be avoided, minimized, or mitigated.

Stormwater impacts are quantified only for total suspended solids. Dissolved pollutants are not assessed for potential impact to salamander habitat and are known to have treatment removal efficiencies that are different from TSS removal efficiencies.

For the proposed roadway stormwater runoff control measures to be validated as sufficient to minimize and mitigate adverse impacts, both pre-development hydrology and stormwater runoff quality must be quantitatively demonstrated to be maintained during both construction and during operation of the proposed roadway.

The second paragraph of this page in the HCP states that the proposed project "... may alter natural surface drainage patterns in minor ways...". It is not clear how "minor" is defined in this context, and supporting quantification of the alteration of the natural hydrology and analysis demonstrating that this alteration would not adversely impact salamander habitat is necessary to validate this statement.

Page 26, section 6.2.3.3., Subsurface Habitat: The importance of subsurface habitat should not be dismissed simply because it is unobservable. In fact, if reproduction occurs primarily below ground, as the best available information suggests, then subsurface portions of critical habitat are absolutely necessary for species recovery.

The HCP states that recharge "will be largely maintained in its natural condition" without providing an analysis of how that will be achieved. Multiple (4 in all) 50 ft-deep piers do not constitute "very minor excavation." Impacts to JPS springs references Figure 8 incorrectly, and probably should refer to Figure 11. Recent City of Austin tracing of springs in Bull Creek canyons (Pit, Hog Wallow and Lanier Springs) indicate a substantial portion of spring discharge originates as surface water that recharges the shallow alluvium upstream of the spring (Johns, 2013; Johns, in preparation). Even though the proposed bridge bent excavation elevations are above spring elevations downstream, disruption or contamination of surface water upstream may affect salamander habitats in downstream springs. Although the HCP states that it is relatively unlikely for the bridge piers to physically disrupt voids occupied by JPS, it cannot be stated with certainty that habitable subsurface voids will not be encountered, especially within the subsurface habitat areas. The applicant should provide construction specifications of how significant voids encountered during pier excavation will be mitigated to preserve the function of the void and groundwater flow. This should include methods to determine if voids are present in the pier shafts (cameras, direct human inspection) as well as mitigation methods that are acceptable to the Texas Commission on Environmental Quality and compliant with City of Austin Code.

The draft HCP does not consider loss of surface water infiltration to groundwater from addition of impervious cover as a result of covered activities.

The draft HCP does not include an assessment of the subsurface catchment area of the springs within the plan area and does not provide a quantitative assessment of the potential loss of recharge as a result of the placement of impervious cover and/or modification of flow paths. The bridge piers will be located at elevations that clearly could impact spring flows. There is no engineering analysis offered to

support that bridge piers once constructed will not alter existing groundwater flow pathways. And there is no support given to the statement that “groundwater levels and flows would be expected to return to preconstruction levels on completion...” or mitigation offered should they not.

Page 28, section 6.2.3.3., Subsurface Habitat: The draft HCP states that groundwater flow paths, if intercepted and altered, would likely find another location nearby at which to discharge. This does not equate to movement of JPS habitat, as groundwater discharge is not the sole determinant of JPS habitat.

Page 31, section 6.3.3, Jollyville Plateau Salamander: The impacts of the rain “shadow” and increased shade of the bridge on vegetation should be considered direct disturbance. The HCP states that potential indirect effects to subsurface habitat “through the temporary alteration of groundwater flows” are speculative. The document offers no data to evaluate how the alteration of groundwater flows would only be temporary. Take should also include all the springs downstream of this project since disruption of surface or groundwater flows could also impact those JPS-inhabited springs.

Page 31, Section 6.4, Impacts: No support is given to justify the assertion that the covered activities will result in “mostly sub-lethal” take of JPS. It is possible to predict and measure the number of individuals likely to be taken using the multiple years of demographic data for JPS generated by City of Austin mark-recapture methods (see Bendik et al., 2014)

Page 33, section 6.4.1.2, Golden-cheeked Warbler Indirect Habitat Modification: The draft HCP cites only one study on the effects of edge (Coldren 1998). This study found "positive relationships of patch size with pairing success and reproductive success.... Reproductive success was greatest in territories farther than 100 m from edge....Territorial placement within a patch appeared to be influenced by adjacent land uses, with warblers selecting agriculture and grasslands as the nearest land use, and selecting against commercial development, entertainment, forested non-warbler habitat, and high-density transportation... Distance to the edge and territory size were greatest for territories closest to land uses with the highest levels of human disturbance." Sperry (2007) also found that GCWAs were detected with greatest frequency along a utility easement compared with a housing development and woodland meadows.

Several recent peer-reviewed studies with large sample sizes of color-banded GCWAs and GCWA nest monitoring that were not cited in the draft HCP but also demonstrate negative effects of edge on GCWA density and reproductive success include Peak 2007, Peak and Thompson 2013, and Reidy et al. 2009.

Citations (not included in the draft HCP):

Peak, R. 2007. Forest edges negatively affect Golden-cheeked Warbler nest survival. *The Condor* 109: 628–637.

Peak, R. G., and F. R. Thompson, III. 2013. Amount and type of forest cover and edge are important predictors of Golden-cheeked Warbler density. *Condor* 115: 659–668.

Peak, R. G., and F. R. Thompson, III. 2014. Seasonal productivity and nest survival of Golden-cheeked Warblers vary with forest type and edge density. *Condor* 116: 546–559.

Reidy, J., M. Stake, and F. Thompson. 2008. Golden-cheeked Warbler nest mortality and predators in urban and rural landscapes. *Condor* 110: 458–466.

Sperry, C. 2007. Influences of borders on Golden-cheeked Warbler habitat in the Balcones Canyonlands Preserve. Thesis. Texas State University, San Marcos, Texas.

Page 33, section 6.4.1.2, Golden-cheeked Warbler Indirect Habitat modification: The draft HCP cites two studies that appear to show little to no effect of road construction and road noise on GCWA densities or reproductive success (Benson 1996, Lackey et al, 2011). However, neither study was based on monitoring of color-banded individuals or GCWA nests, so their conclusions are questionable. Further, the Vickery method used to determine reproductive success in Lackey et al. (2011) is a reproductive index based on behavioral observations rather than nest fate and was developed for grassland birds. Morgan et al. (2012) found that although the Vickery method "may function as a coarse indicator of habitat suitability (e.g., documenting production in potential ecological traps), in the USFS habitat suitability study being conducted for BCCP the index exhibited neither internal consistency nor the ability to predict nest fate at the plot or territory level and functioned poorly as a substitute for nest searching and monitoring." The reliability of the Vickery method also needs to be field tested on woodland birds such as the GCWA. Based on data from the BCP, we have found that the Vickery method does not provide reliable productivity data compared with color-banding and nest monitoring. Color-banded individuals would also provide more accurate data on territory size and placement, as well as age structure and population turnover. GCWAs tend to exhibit high site fidelity, so it would be helpful to know whether this holds true for areas along the roadway corridors as well.

Recent research (Leonard et al. 2012, McIntyre et al. 2014) not cited in the draft HCP suggests that noise can increase predation risk by interfering with communication between parent and nestling birds.

Citations (not included in the draft HCP):

Leonard, M. and A. Horn. 2012. Ambient noise increases missed detections in nestling birds. *Biology Letters* doi: 10.1098/rsbl.2012.0032.

McIntyre, E., M. Leonard, and A. Horn. 2014. Ambient noise and parental communication of predation risk in tree swallows, *Tachycineta bicolor*. *Animal Behavior* 87:85-89.

Morgan, M. R., C. Norment, and M. C. Runge. 2012. Evaluation of a reproductive index for estimating productivity of grassland breeding birds. *Auk* 127:86-93.

Page 35, section 6.4.1.2, Golden-cheeked Warbler, Indirect Habitat Modification: The draft HCP states that the proposed project would not fragment and isolate the GCWA habitat south of the infrastructure corridor because the bridge would maintain habitat connectivity. However, the draft HCP fails to address impacts of the bridge to the underlying closed canopy woodlands (e.g., reduced natural light, altered hydrology). As stated above, these and other impacts associated with the proposed road would effectively isolate the GCWA habitat south of the road (approx. 90.5 acres) and should be included in the estimated take calculations.

Page 35, section 6.4.3.1, Jollyville Plateau Salamander, Temporary Habitat Modification: The draft HCP claims that JPS habitat impacts will be temporary. Constructing a bridge with year-round traffic and storm water runoff of oil, grease, and sediment will be permanent. Addition of impervious cover affecting subsurface infiltration of stormwater and surface runoff hydrology is a permanent impact. In addition to habitat disturbance and modification, the creation of new impervious cover has been shown to have far-reaching negative consequences for aquatic ecosystems (Coles et al., 2013), including JPS salamanders (Bendik et al., 2014; USFWS, 2013). This is another factor that will appreciably diminish the

quality and quantity of environmental features necessary for JPS recovery. The Bull Creek Watershed of the plan area already has an overall average impervious cover of 12% (77 FR 50774). Measurable degradation of stream ecosystem health and integrity consistently occurs at average levels of impervious cover between 6-15% in contributing watersheds (Bowles et al., 2006 and references therein; Schueler, 1994; Schueler et al., 2009).

The HCP incorrectly compares the relatively slow drying of spring habitats due to seasonal climatic events to the more sudden drying due to interruption or diversion of groundwater flows due to construction.

The draft HCP states (page 35) "How changes in the physical extent of aquatic habitat area might impact individual JPS is unknown, but JPS are adapted to natural changes..." The covered activities are not natural and would not result in natural changes at a timescale to which JPS could naturally adapt. The draft HCP must include quantitative assessment of the changes that could occur as a result of the covered activities on salamander habitat in order to determine if the mitigation and minimization measures are appropriate and sufficient.

Page 38-39, section 6.4.3.2, Jeopardy and Critical Habitat: There is no certainty or analysis provided supporting the contention that if groundwater flows to springs are interrupted, flows will return after construction is complete. Also, water discharging from downstream springs may derive from surface water recharging in creek channels upgradient of the springs that could be affected by the proposed project. LISD should submit detailed plans and an enforcement strategy to ensure that all proposed stormwater controls are constructed according to standards, modified to reflect actual field conditions appropriately and maintained after storm events. The proposed environmental monitors MUST have the authority to halt work and order immediate repair or modification of field erosion and sedimentation controls and contracts must be written to acknowledge that authority.

It is not possible to determine the proximity and relationship between the proposed bridge piers and springs in the project area. Groundwater may be moving from upstream to downstream in abandoned alluvial channels adjacent to the existing creek channel. Detailed work including tracing should be conducted in advance of issuance of an incidental take permit to determine where the proposed bridge piers are in relation to these groundwater flow routes before determining that the activity will not impact subsurface habitat or groundwater flow.

Page 40, section 7.2, Seasonal Clearing Restrictions: LISD proposes seasonal clearing restrictions from March 1 through July 31; the proposed restricted dates would not cover BCVIs which are known to occur on site. The applicant proposes to conduct surveys to determine if BCVI's are present and if so, then would restrict clearing to March 1 thru August 31; however, since BCVI's have already been documented on site, the restrictions clearing vegetation should remain as March 1 thru August 31.

Page 40, section 7.3, Oak Wilt Prevention: The document states "all wounding of oaks (including those caused by trimming, limbing, and pruning) should be avoided from February through June. This timeline is generally consistent with the seasonal clearing restrictions described above." Though it does have significant overlap, clearing during the month of February would be in violation of TFS's oak wilt guidelines.

Oak wilt prevention should specify that all wounds, including stumps, be painted *immediately* after cutting.

Page 41, section 7.5.1, Warbler and Vireo Conservation Funding: The draft HCP proposes mitigating using the BCCP fees for mitigation. LISD has already been advised by the BCCP Coordinating Committee Secretary that this project is ineligible to participate in BCCP as proposed. The draft HCP seems to propose a separate federal permit that will allow it to participate in BCCP by paying minimal fees. If LISD wishes to pursue participation in BCCP then the proper venue to achieve that would be to the acquire land in the permit area, withdraw it from BCCP, and join BCCP as a managing partner by dedicating and managing other land in the macrosite as provided for in BCCP. It is important to note that LISD is not an infrastructure service provider as defined by Appendix B of BCCP and is not authorized to use the corridors.

Page 44, section 8.3, Jollyville Plateau Salamander: The applicant needs to document what methods will be used to monitor for subsurface voids during pier excavation and what mitigation methods will be considered and used if a void transmitting water is encountered. It is not clear how LISD determined the 2 gpm threshold for notification to USFWS.

LISD is proposing to pay BCCP a fee of \$50,000.00 to monitor JPS and apply adaptive management should Changed Circumstance 3 occur. This event is very possible. However, BCCP has not been consulted nor has it or its members agreed to accept this responsibility. Furthermore, the proposed fee may only be minimally adequate to cover expenses for one year of intensive JPS monitoring during and immediately after construction. The responsibilities for removing sediment and restoring damaged habitat could be an order of magnitude larger than the proposed fee at best, and would require BCCP partners to amend their permit to cover JPS or acquire a separate permit for JPS. The cost for ESA compliance for JPS alone could easily be \$2 million.

Page 46, Changed Circumstances 2: The statement in the draft HCP that “subsequent storm events would continue to flush any accumulated material from the stream bed over time...” is speculative and unsupported by published literature. Additionally, the use of the mitigation funds paid to the BCP to pay for corrective action in case of erosion and sedimentation control failures (changed circumstance 2) is inappropriate. Correction of failures of impact minimization measures should not be counted against funds designated as mitigation for conservation purposes and future studies.

Page 48, section 12.1, Table 9: Regarding the first alternative, “Obtain access through the 3M campus using existing private roads,” which states that “LISD contacted representatives of the 3M Company to discuss the feasibility of this alternative. The 3M Company declined to open their private drive to public traffic based on security and liability concerns. This alternative is not a feasible option.” The use of the existing roadway owned by 3M should be revisited. Security and liability concerns are certainly legitimate concerns. However, both issues could be effectively worked out at considerably less expense than constructing the proposed new road and bridge. The use of security cameras, heavy-duty security fence (paid by LISD), and possibly deeding the road to LISD are possible solutions to this dilemma. The draft HCP should be explicit regarding what LISD offered to address 3M’s concerns.

Other alternatives that were discounted should be revisited, “Use Park & Ride systems to support offsite student drop-offs/pick-ups and “staggering school start and end schedules”

While no one solution will solve the existing congestion issues, a combination of several solutions would certainly go a long way in solving the problem. The alternatives were not adequately addressed or explored.

Specific Comments on Appendix A (Atkins 2014)

1. Page 2: Bullet #2 states that an existing dirt road will be used to access the bent sites, presumably on each side of the creek. It is not clear from the submitted materials if Atkins has determined if the existing dirt road is sufficient as is or if modification of the road will be needed to accommodate large construction vehicles. Also, the BCCP generally discourages driving on these roads following rain to prevent damage. It is unclear if LISD will utilize similar restrictions on the construction contractor or if they will repair the roads after construction is complete.
2. Page 3: The roadway pier construction areas are proposed to capture only the one-year storm volume. There is a high degree of risk that detention capacity of the proposed stormwater controls will be exceeded during the construction of the project.
3. Page 4: "The stormwater re-irrigation system will remove over 100% of suspended solids..." It is unclear how removal of more than 100% is achieved. It is not stated what volume of stormwater will bypass these controls (when the control retention capacity is exceeded) and thus enter JPS habitat effectively untreated. City of Austin stormwater treatment requirements are not certified to be protective of salamander habitat. No assessment of vegetative filter strips (VFS) as a hydrologic stormwater runoff control was performed or referenced in the draft HCP to validate the assertion that the VFS will maintain pre-development hydrology within salamander habitat.
4. Page 6: The appendix refers to a canyon rimrock Critical Environmental Features (CEFs) that has not been addressed in other parts of the HCP. The City of Austin Code requires buffers for CEFs to extend below ground as well as above ground so that a bridge spanning a rimrock CEF may still be within the regulatory 150 ft protective buffer and thus require a variance approved by the City of Austin prior to construction.
5. Page 7: "The area under the bridge side spans will need to have the trees cut..." The appendix does not clearly state the size of these proposed side span areas.
6. Page 7: The appendix does not address access to the areas under the bridge spans that will need temporary support.

Specific Comments on the Environmental Assessment

The following comments on the EA include those not already made in the General Comments and Specific Comments on the draft HCP, above. The EA is largely a recitation of the HCP and neither document has adequately addressed the potential impacts of the proposed LISD road project.

Page 1, section 1.1, Purpose and Need for Action: The draft HCP discusses mitigation that will be provided to the BCCP, but the EA states that the fees will be paid to a "Service-approved third-party conservation bank". Such a payment will not mitigate for damages to the BCCP and other permits that result in an increase in take beyond levels authorized in those permits and result in reduction of mitigation levels approved in those permits that this proposed project will impact.

Page 3, section 1.1, Purpose and Need: The schools are constructed from steel, concrete and stone and pose little risk of burning as noted in the CWPP. In addition, each school is surrounded by impervious parking areas and by acres of well-watered and maintained landscape that also posed little risk of burning. Evacuation of students through narrow roadway corridors during a wildfire would likely pose considerably more risk than staying within the safety of the school buildings.

Page 7, section 1.4, No Action Alternative, second paragraph, second line: Typo, reads “the the”

Page 12, section 2.1.1.1.2, Floodplains: Figure 4 of the HCP shows that those springs in the channel of the tributary discharge from the Walnut Formation and not the Edwards. The text should be revised to reflect that information. The project area is not located in an area regulated by Texas Commission on Environmental Quality for the Edwards Aquifer Protection Program (EAPP). Including this is misleading and could lead a reader to believe that the project will be regulated by the TCEQ EAPP.

Page 15, section 2.1.2.3, JPS: Many of the springs containing JPS discharge from the Walnut and Glen Rose formations as shown in Figure 4 of the HCP.

Page 17, section 2.1.3.1, Karst Invertebrates: In addressing the listed karst invertebrates found in the area, “All seven species...” should read “All six species....” This is also stated on page 31, section 2.2.2, first line “...and the seven karst invertebrates...”

The total number of acres listed for Karst zone 1 (231 acres) does not match the total listed in the draft HCP; which number is correct?

Page 34, section 2.2.2, Other Species: The Walnut and Glen Rose formations can be locally karstic within the plan area.

Page 38, section 3.2, Table 10: This table lists the negative impacts the draft HCP and alternatives would have for various factors, such as HCP covered species. For the “Proposed Action alternative,” it lists the impacts to water resources and karst invertebrates as “minor and negligible to minor.” The draft HCP and EA should specify how filling in a ravine and building a road within 40 feet of an endangered species cave can be considered “minor/ negligible.” Clearly the applicant is greatly understating the negative impacts of the roadway. The document then goes on to state that the “no action plan” would also have negligible to minor impacts to endangered species. Again, the applicant needs to elaborate on how a “no build” alternative could have equal impacts to the construction of a major roadway/ bridge.

Page 39, section 3.3.1, Water Resources: The EA states that 280 ft of vegetation under the bridge across the Critical Water Quality Zone will be left undisturbed but fails to address the near and long term fate of that vegetation due to decreased sunlight and water. There are countless examples in the Austin area of dead zones below bridges, even where vegetation was left undisturbed during construction.

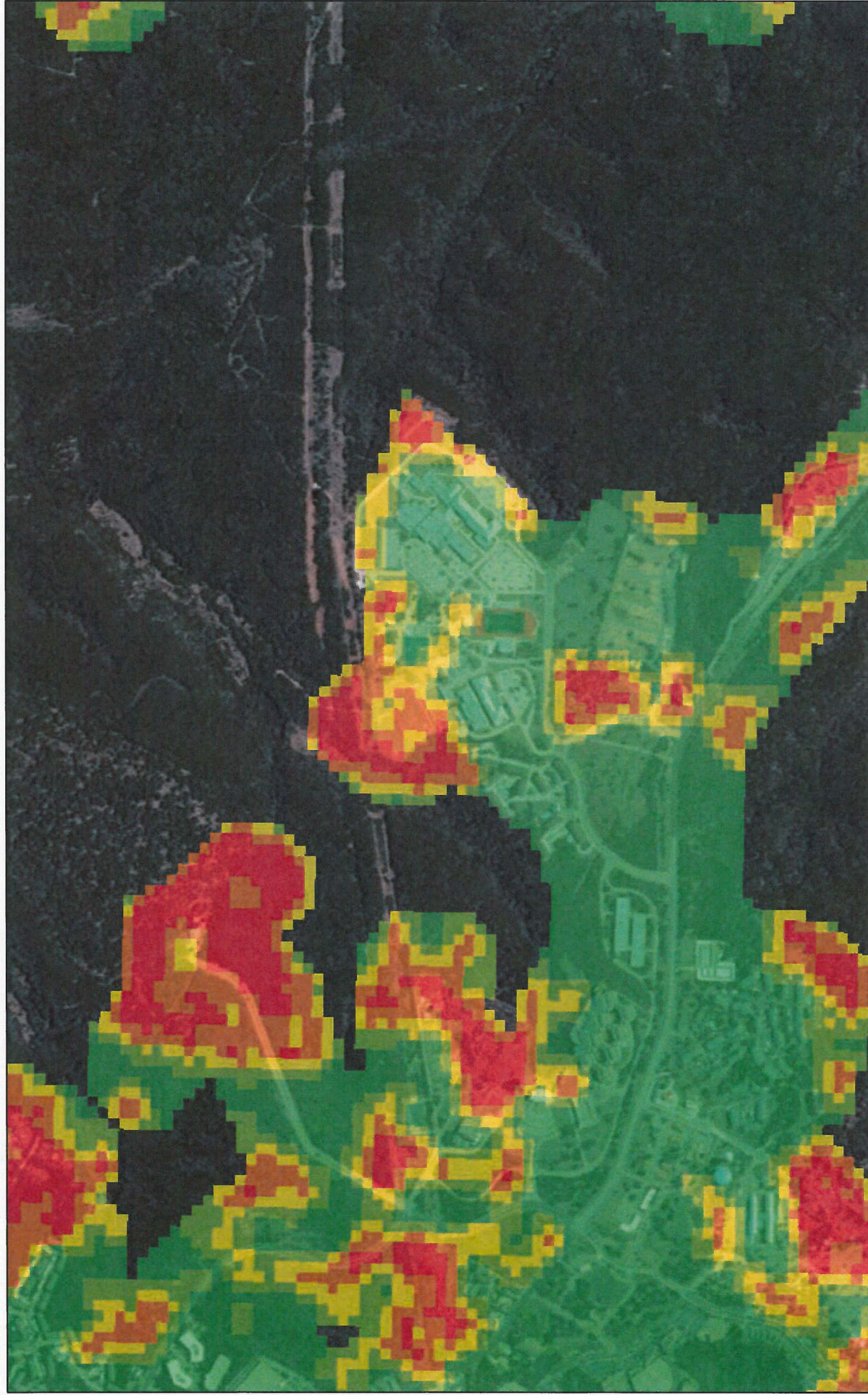
Page 48-49, section 3.3.3, Covered Species: The EA should explain how the project will examine the bridge piers excavations for voids and water flow, describe mitigation of voids, fractures with water flow, and how the pier excavations will be filled with concrete to not also fill bedding planes and open fractures with concrete. The EA should provide references that document that JPS can survive sudden disruption of groundwater flows and potentially degraded water quality for up to one year.

Even with advanced water quality controls and oversight, siltation of waterways is possible. The EA should provide references showing that siltation of undisturbed JPS habitat would not result in take.

(Page 51) The correct reference is Bendik 2013 (not Bendick).

Exhibit A:

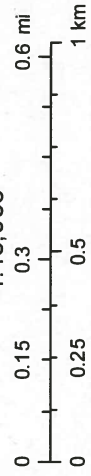
Austin/Travis County CWPP Viewer



January 21, 2015



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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and

