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Adam Zerrener, Austin Field Office Supervisor
Bill Seawell, Field Office Biologist
U.S. Fish & Wildlife Service
10711 Burnet Road, Suite 200
Austin, Texas 78758

April 27, 2010

RE: Jollyville Plateau salamander and Water Treatment Plant No. 4

Dear Mssrs Zerrener and Seawell:

We are writing to request that you take action to assure that the City of Austin avoids endangering the survival and recovery of the Jollyville Plateau salamander.

As you are aware, the City of Austin is moving forward with construction of Water Treatment Plant No. 4 (WP4) and its associated intake and transmission tunnels. These facilities are located within or immediately adjacent to known habitat for several endangered species, including the Golden-cheeked warbler and listed karst-dwelling invertebrates. The plant's large intake and transmission tunnels would pass through and under several known localities of the Jollyville Plateau salamander. We are very much concerned that this work cwould pose a major threat to the survival of the species, both in the short and long-term.

We write as biologists who have been involved for many years with the science and conservation related to Eurycea salamanders. This has included work on *Eurycea tonkawae* specifically. We are concerned that drilling and tunneling in and adjacent to Jollyville Plateau salamander habitat poses significant risks to the survival of the species.

As we understand the City of Austin's proposal, the proposed plant's Jollyville Transmission Main and Forest Ridge Transmission Main would pass directly below Bull Creek headwater springs that are the primary habitat for the salamander. Vertical shafts for water delivery and for construction of the transmission mains would pass through the Edwards Aquifer and the underlying Glen Rose formations. Some of the vertical shafts would be ten feet in diameter, while shafts for construction would be up to thirty feet in diameter. The horizontal transmission tunnels would be placed below the Edwards Aquifer at a depth that has not yet been determined. The plant's intake tunnel and construction shaft would also pass through the Edwards Aquifer and the underlying Glen Rose formations close to spring and cave localities of the salamander.

It is our understanding that the attached map, prepared by the Save Our Springs Alliance, provides an accurate representation of the proposed facilities and salamander localities in the area. If you have information that this is not correct, please let us know of any errors.

We understand that the City of Austin maintains that tunneling through the Edwards and Glen Rose formations would pose limited risks of disrupting spring and underground flow paths that are critical to the salamander's survival. That conclusion seems unproven in light of what has already occurred. As we understand it, a small test well located on the original "Bull Creek" plant site and very close to the proposed route of the Jollyville Transmission Main punctured a flow path for source waters to Moss Gulley Spring in the mid-1980s. In subsequent years, the spring flow was greatly reduced, and efforts by the City to restore normal flow within the past few years resulted in termination of flow to the spring completely. Previously, Moss Gulley Spring supported a salamander population, but no salamanders have been found since the spring stopped flowing as a result of the actions by the City.

We are concerned about the City's plans for WP4 for several reasons. First, the proposed Jollyville and Forest Ridge transmission routes were reserved by the Austin Water Utility when the Balcones Canyonlands Conservation Plan was developed. The routes were not chosen with endangered species conservation in mind; they were clearly chosen as the shortest (and thus most affordable) routes between the proposed plant site and the City's Jollyville and Forest Ridge water storage tanks. While the BCCP referenced the Jollyville Plateau salamander as a species of concern, very little was known about the species at the time. The Plan is clear that it was not designed to protect the salamander and that it does not authorize "take" of the salamander. To our knowledge, the City has made no effort to evaluate alternative transmission routes that would avoid further harm to listed endangered species, the Bull Creek Preserve, and the salamander.

Second, the City continues to spend many millions of dollars on site preparation and final design and construction of the plant and transmission mains. This is taking place even though research on risks to salamanders and their habitat is ongoing. By making a major commitment of resources to this project, there will be pressure on the City's staff and consultants to conclude that the project does not pose a risk to the salamander.

Third, we are concerned that the current research program may not be adequate to determine risks to salamanders and their habitat. Karst is notoriously unpredictable in its composition and hydrology. Bore holes that hit solid rock may miss significant voids and flow paths by inches or feet. Dye-tracing under some aquifer conditions may not be illustrative of flows under different conditions.

Fourth, we are concerned that the Moss Gulley Spring incident has not been heeded as a significant warning sign. The WP4 site sits above salamander habitat, and its tunnels pass through and immediately below Edwards Aquifer salamander habitat, including the original Bull Creek site. These are vertical and horizontal tunnels of eight to thirty fee in diameter (as opposed to a four-inch diameter test hole). The risk of puncturing a major flow path, and dewatering critical salamander habitat, appears significant. There may also be risks of pollution and dewatering from drilling vibrations

and long-term operations of tunnels which are not sealed against inflow. The City's failure to report the Moss Gulley Spring incident only increases our concern.

Finally, the January 2010 Interim Report by Dr. Paul Chippendale to Texas Parks & Wildlife ("Population genetics, species boundaries, and conservation of the Jollyville Plateau salamander, *Eurycea tonkawae*") indicated that the Jollyville Plateau salamander may very well be two species, with the Bull Creek population representing a distinct species. This means that the range of that species is even more restricted than what is now recognized, and confined to a very small number of localities. Assuming Dr. Chippendale's interim conclusion is confirmed, the proposed construction of the water plant and its intake and transmission tunnels thus pose a potential threat to the entire Bull Creek species.

We respectfully urge you to require that the City fully evaluate project alternatives and alternative routes that would avoid the Bull Creek Preserve. In the interim, we hope you will ask the City not to continue making irreversible commitments of significant financial resources to WP4. If the City cannot prove that the project will have no adverse effects, the Service should proceed with listing the salamander as endangered so as to force necessary conservation measures on the City's activities.

The Bull Creek Preserve is the crown jewel of the BCCP Preserve system. Given the twenty-year effort to preserve the truly unique biodiversity of the Bull Creek watershed, it is our hope that you and your office make certain that this irreplaceable natural heritage is not needlessly placed at risk by this massive project.

We appreciate your consideration. We would be happy to meet with you to discuss further our concerns and the efforts USFWS is undertaking to address this situation.

Sincerely,

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