DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE
10711 BURNET ROAD, SUITE 200
AUSTIN, TEXAS 78758

FINDING OF NO SIGNIFICANT IMPACT

ISSUANCE OF A SECTION 10(a)(1)(B) PERMIT TO THE CITY OF AUSTIN FOR INCIDENTAL TAKE OF THE BARTON SPRINGS SALAMANDER (*Eurycea sosorum*) AND THE AUSTIN BLIND SALAMANDER (*Eurycea waterlooensis*) RESULTING FROM RECREATION, OPERATIONS, MAINTENANCE, AND RESTORATION AT BARTON SPRINGS POOL (PARTHENIA SPRING), OLD MILL SPRING, ELIZA SPRING, AND UPPER BARTON SPRING, AND ACTIVITIES NECESSARY TO MANAGE POTENTIAL HABITAT FOR THE COVERED SPECIES WITHIN THE PLAN AREA IN TRAVIS COUNTY, TEXAS

An environmental assessment (EA) and habitat conservation plan (HCP) have been prepared for the issuance of a section 10(a)(1)(B) permit (ITP) for incidental take of the federally listed Barton Springs salamander (*Eurycea sosorum*) and Austin blind salamander (*Eurycea waterlooensis*) resulting from recreation, operations, maintenance, and restoration at Barton Springs Pool (Parthenia Spring), Old Mill Spring, Eliza Spring, and Upper Barton Spring, and activities necessary to manage potential habitat for the covered species within the plan area in Austin, Texas. These activities will occur within Zilker Park, Travis County, Texas. This action will provide for the preservation, management, and restoration of four springs occupied by the Barton Springs salamander, three of which are also occupied by the Austin blind salamander.

Preferred Alternative

The proposed action includes the issuance of an ITP under section 10(a)(1)(B) of the Endangered Species Act (Act) to authorize incidental take of the affected species during recreation, operations, maintenance, and restoration at Barton Springs Pool (Parthenia Spring), Old Mill Spring, Eliza Spring, and Upper Barton Spring, and activities necessary to manage potential habitat for the covered species within the plan area in Austin, Texas. It is anticipated that up to 1865 Barton Springs salamanders and up to 50 Austin blind salamanders may be taken annually as a result of recurrent actions proposed within the HCP. It is further anticipated that up to 1065 Barton Springs salamanders and up to 25 Austin blind salamanders may be taken as a result of one-time discrete actions proposed within the HCP. This results in a total of up to 38,365 Barton Springs salamanders and up to 1,025 Austin Blind salamanders that may be taken over the anticipated 20 year life of the ITP. Up to 5 percent of the total estimated take of each species may be in the form of lethal take.

A conservation plan has been developed that describes the mitigation for the incidental take of both Barton Springs salamanders and Austin blind salamanders by the City of Austin (City). This plan includes the following features:

- Visual inspections of all protected habitat areas (spring sites when flowing) at least four days a week.
- Development of written habitat management plans for each spring site.
- Re-drawing of protected salamander habitat in Barton Springs Pool, with U.S. Fish and Wildlife Service (Service) approval, to include more habitat that is and can be maintained as suitable for salamander residence and exclude unsuitable habitat based on monitoring data and habitat condition (Figure 16 in the HCP).
- Improvement and maintenance of suitable substrates in salamander habitat including replacement of rocky substrate with limestone gravel or cobble in order to maintain the natural groundwater buffering of karst aquifers.
- Prohibiting the following activities within the spring sites to reduce harassment of salamanders:
    - Unauthorized, deliberate disturbance of salamander habitat, including substrate, aquatic vegetation, algae, and leaf litter or woody material from terrestrial vegetation,
    - Unauthorized, deliberate disturbance or alteration of flow regime,
    - Introduction of non-native flora or fauna into any salamander habitat or Barton Springs Pool, and,
    - Unauthorized SCUBA in salamander habitat or Barton Springs Pool.
- Cleaning salamander habitat with the spring water of Barton Springs as necessary to keep the upper 2-3 inches of habitat from becoming embedded with sediment.
- Removing woody debris from aquatic habitat if necessary by hand or by any other method approved by the Service.
- Ensuring that sediment, algae and debris disturbed or collected during routine cleaning of Barton Springs Pool will not be disposed of within, allowed to settle within, or otherwise adversely affect aquatic habitat.
- Reduction in loadings of petroleum hydrocarbons, heavy metals and sediments to Barton Springs from current development and other activities located within the Barton Springs Zone in areas subject to the City's jurisdiction, and;
- Control of local surface water runoff around Barton Springs Pool, Eliza Spring, Old Mill Spring, and Upper Barton Spring.
- City restoration and/or maintenance of the natural flow regime within the four spring sites including variation in water depth, velocity and turbulence within the channel associated with variation in aquifer discharge, surface water floods, and base flows (section 6.1.3 of the HCP). To accomplish this the City will:
    - Allow floodwater to pass through Barton Springs Pool as unimpeded as is feasible.
    - Develop and implement a plan for routine silt and gravel removal from the deep channel of the Pool, with Service concurrence.
    - Create and maintain a Drawdown Plan, which will provide standard operating procedures for use when Pool water elevation is drawn down.
    - Not conduct a full drawdown of the water level in Barton Springs Pool if the combined discharge of the Barton Springs complex is less than 54 cubic feet per second (cfs), without concurrence from the Service.
    - Receive approval from a City Salamander Conservation Program salamander biologist before the water level in Barton Springs Pool may be drawn down under any flow conditions.

    - Visually inspect all exposed habitat during drawdowns for stranded salamanders before cleaning and maintenance activities in those areas begin. Any stranded salamanders will be moved to permanent water.
    - Visually inspect water level in Eliza Spring during drawdowns to ensure that water is retained in surface habitat of the spring pool.
    - Ensure that a minimum of two City salamander biologists will be present when a full drawdown is conducted for cleaning and maintenance.
    - Ensure that a minimum of one City salamander biologist will be present when a partial drawdown is conducted for cleaning and maintenance.
- City modification, removal, or replacement of existing infrastructure to restore more natural flow regimes and habitats within Barton Springs Pool, Eliza Spring, and Old Mill Spring.
- Protection of the evolutionary potential of wild and captive populations of Barton Springs salamander and Austin blind salamander through maintenance and/or enhancement of genetic variation and gene flow among populations of each species, and maintenance of natural selection characteristic of wild environments. Maintenance of evolutionary potential may include artificial selection for adaptations to future environmental conditions in the wild (section 6.1.5 in the HCP).
- Adoption of benign cleaning methods by the City for the maintenance of Barton Springs Pool to reduce the harassment and/or harm of Barton Springs and Austin blind salamander (section 6.1.6 of the HCP), including:
    - Manually trimming and removing aquatic vegetation (macrophytes, bryophytes and algae) as necessary.
    - Designating specific areas at least 25 feet away from the water for the fueling and maintenance of equipment and vehicles used in maintaining the springs and surrounding areas and including absorbent pads underneath to contain any toxins.
    - Cleaning the shallow end of Barton Springs Pool without full drawdown of water level in the entire Pool.
    - Utilizing spring water for maintenance, and to provide water over fissures during drawdown.
    - Prohibiting the use of toxic chemicals for cleaning of Barton Springs Pool.
- City collection and distribution of salamander monitoring data (section 6.1.7 of the HCP) including:
    - Development and maintenance of a written City monitoring plan.
    - Completion of salamander population surveys at perennial Parthenia, Eliza, and Old Mill springs and at intermittent Upper Barton Spring, when flowing, at least bimonthly throughout the year or another interval sufficient to determine the status of the species and population dynamics as deemed appropriate by a City salamander biologist and approved by the Service.
    - Use of Eliza Spring and Old Mill Spring as outdoor educational facilities for the study of the biology and ecology of Central Texas springs.
- Training of City employees, staff, and volunteers about protected salamander species (section 6.1.7 of the HCP) including:
    - Yearly training of Barton Springs Pool lifeguards, maintenance staff, and seasonal employees about the protected salamanders, resident aquatic wildlife, and flora and the ecology of Edwards Aquifer springs.

- Training of all people conducting salamander and habitat monitoring.
- Ensuring that all monitoring and surveys are conducted under the terms and conditions of a current federal Endangered Species Act 10(a)(1)(A) scientific permit issued to the City.

- Additional measures that contribute to recovery (sections 6.1.7.5, 6.2, and 6.3 of the HCP):
  - The City will form the Barton Springs Scientific Advisory Committee, which will include local and regional experts. The Advisory Committee will meet at least annually to discuss and refine Barton Springs' maintenance and environmental management activities and will also be responsible for helping identify potential revisions to the Plan and suggest adaptive management strategies.
  - Access to Eliza Spring and Old Mill Spring will be restricted to ensure no unauthorized disturbance of salamander habitat and/or its supporting riparian habitat.
  - The City will maintain a plan and necessary equipment and training for responding to, and mitigating the effects of catastrophic contaminant spills that threaten protected salamanders or their habitat.
  - The City will maintain viable, evolutionarily fit captive breeding populations of Barton Springs salamander and Austin blind salamander. The City will designate a staff biologist and dedicate a minimum of $28,000 annually to the development and maintenance of this program.
  - Under conditions when decreased dissolved oxygen concentrations may be harmful to salamanders, the City may supplement dissolved oxygen in Eliza, Old Mill, and Parthenia springs using air pumps, water recirculation, or other methods approved by the Service.
  - The City will create a fund for conservation and research efforts for Barton Springs salamander and Austin blind salamander. The City will deposit $53,000 annually (for the term of the ITP) into this fund from the revenues generated by Barton Springs Pool.
  - The City will continue to support research projects designed to gather and evaluate data applicable to wild or captive populations of the Barton Springs salamander, and the Austin blind salamander.
  - The City will continue to provide educational programs to enhance public awareness and community support for Barton Springs salamander, Austin blind salamander, Barton Springs, and the Edwards Aquifer. The SPLASH! Into the Edwards Aquifer Exhibit at Barton Springs Pool will continue to be a major focus of this effort.
  - The City will cooperatively develop a memorandum of understanding with the Barton Springs Edwards Aquifer Conservation District within one year of ITP issuance.
  - The City will participate in regional water resource planning efforts to protect Barton Springs salamander and Austin blind salamander.
- Reporting and Adaptive Management (section 6.4 and 6.5 of the HCP):
  - The City will submit an annual report on February 1 of each calendar year, or other date approved by the Service, to the Service's Austin Ecological Services Field Office and Southwest Regional Office – Permits Division, the City Manager, and the City Council. The annual report will include assessments of the status of the protected salamander species, analysis of

biological data, and review of Barton Springs Pool maintenance and management activities during the year. In the annual report, each point of the amended HCP will be addressed.

- The City has proposed an extensive adaptive management program to inform changing proposed actions or conservation measures in the HCP based on data gathered during the implementation of the HCP.

Other Alternatives Considered

No Action Alternative. The No Action Alternative would result in a decision by the USFWS not to issue an amended ITP and the current ITP would expire. Maintenance of the Barton Springs Pool would only continue until the current ITP expires. When the current ITP expires, this alternative would result in halting all maintenance activities that cause take of listed species. As routine and post-flood cleaning is critical to maintaining the Barton Springs Pool for recreational activities, use of the pool would likely be restricted until a new ITP could be issued.

Background and Public Participation

In October 1998, the USFWS published the *Final Environmental Assessment and Habitat Conservation Plan for the Issuance of a Section 10 Permit for Incidental Take of the Barton Springs Salamander (Eurycea sosorum) for the Operation and Maintenance of Barton Springs Pool and Adjacent Springs*. The ITP was issued on 28 October 1998 and will expire in 2013. The 1998 HCP presented details of the maintenance activities allowed within the spring complex and provided goals for future activities associated with the species conservation and maintenance of the springs. The October 1998 Final Environmental Assessment included a total of 271 public comments broken down into 15 categories based upon the type of concern. The public comment period was July 15, 1998 through August 14th, 1998.

The City began preparation of the major amendment to the HCP in 2011, with minor changes to the maintenance activities associated with the springs, and with the addition of the Austin blind salamander as a covered species to the plan. On 11 October 2011, the City held a public information meeting at Barton Springs Pool to discuss the proposed major amendment and extension of the existing ITP. Representatives from the City and the USFWS were available to answer questions from the public about the amendment process. Approximately 25 people attended the meeting.

A Notice of Availability of the draft EA, draft HCP, and permit application, was published in the *Federal Register* on April 22, 2013 (78 FR 23780). The public comment period closed June 21, 2013. The Notice of Availability was posted to the Service's Austin Ecological Services Office website (http://www.fws.gov/southwest/es/AustinTexas/).

We received 6 comment letters via electronic mail: four from private citizens and two from non-government organizations (NGOs) within Austin. Commenting NGOs included the Save our Springs Alliance and the Barton Springs Polar Club (BSPC). A summary of the comments we received and how we addressed them is included in the EA.

Determination

There are several factors the Service takes into consideration when determining whether an EIS should be prepared with respect to issuance of an ITP, including level of controversy and significance of environmental impacts. Although there was controversy when the original ITP was issued in 1998 to the City for operations and maintenance of Barton Springs Pool, the City, the environmental community, and the public have worked together over the last 15 years under the existing ITP. The Service has determined, based on the limited number of comments received during the public comment period that little controversy exists with respect to issuance of an ITP.

The Service recognizes that there will be impacts to the human environment from construction of the Project. However, based upon information contained in the EA, HCP, and supporting data in the Service's files, the Service has determined that this action is not a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102 (2)(c) of the National Environmental Policy Act of 1969. Accordingly, the preparation of an Environmental Impact Statement on the proposed action is not warranted.

It is my decision to issue the section 10(a)(1)(B) ITP for the recreation, operations, maintenance, and restoration at Barton Springs Pool (Parthenia Spring), Old Mill Spring, Eliza Spring, and Upper Barton Spring, and activities necessary to manage potential habitat for the covered species within Zilker Park, in Travis county, Texas.

Joy E. Nicholopoulos

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9/12/13
Date