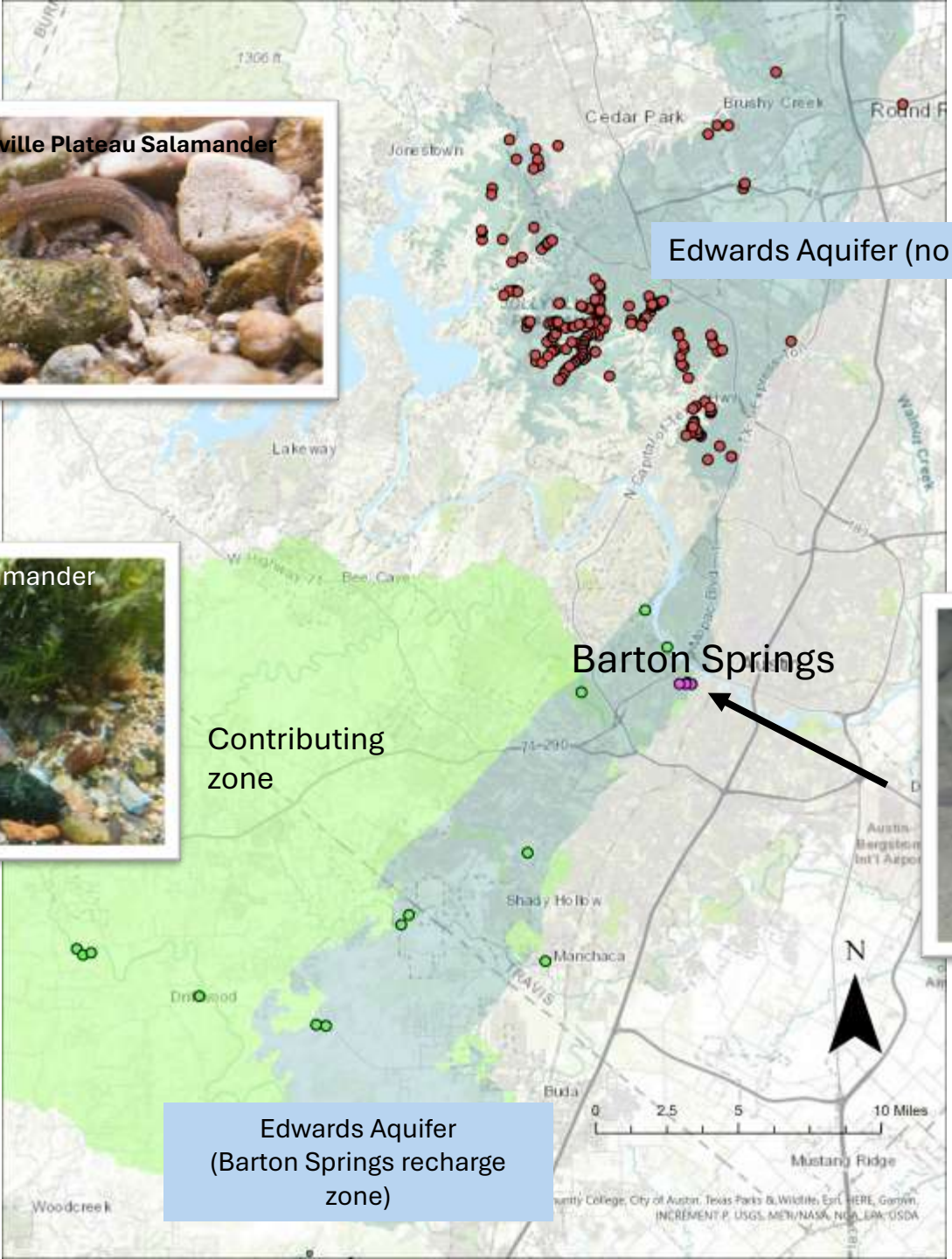


An aerial photograph showing a dense urban skyline in the background, with a river flowing through a lush green park area in the foreground. A dam is visible in the lower center of the image, with water flowing over it. The sky is blue with scattered white clouds.

Salamander Conservation Program

Austin Watershed Protection

Nathan F. Bendik
Conservation Program
Supervisor



Edwards Aquifer (northern)

Edwards Aquifer
(Barton Springs recharge
zone)

Contributing
zone

Barton Springs



Barton Springs Pool Habitat Conservation Plan (HCP)

- Describes conservation measures that mitigate and minimize harm to federally protected salamanders
- Requirement of City's federal permit; allows us to operate Barton Springs Pool (endangered species habitat)
- Implemented in 1998; renewed in 2013
- Permit expires in 2033 (City will likely renew)

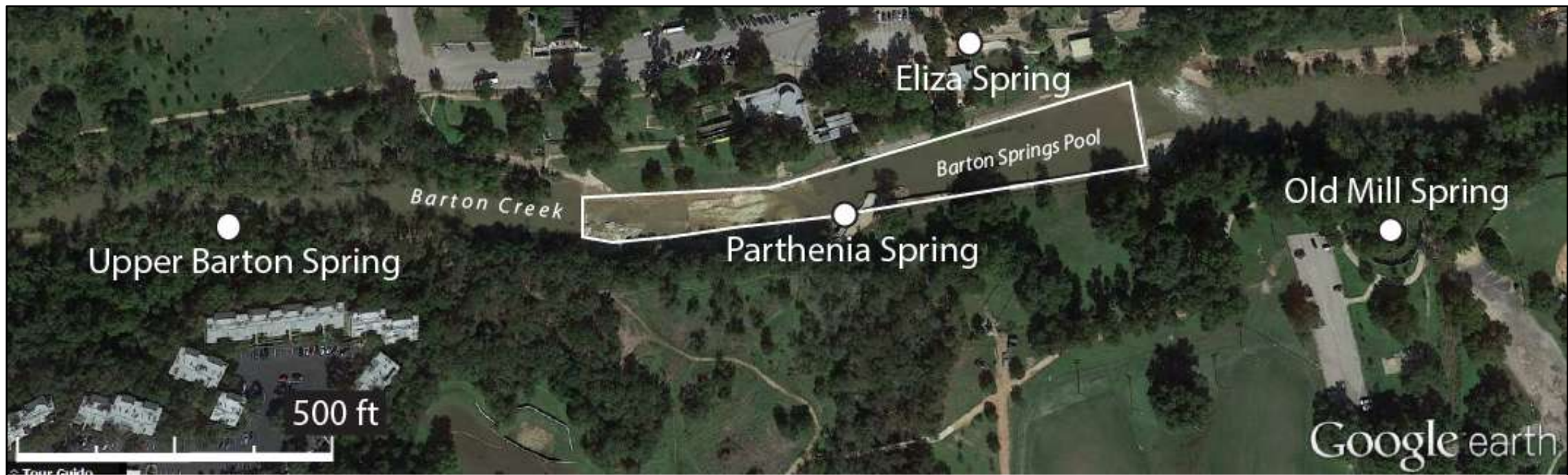


Figure 1. Location of the four major springs of the Barton Springs group.



Upper Barton Spring



Eliza Spring



Old Mill/Sunken Garden Spring

Major Elements of HCP

- Habitat protection (e.g., limited pool drawdowns)
- Habitat management (water level adjustments, sediment removal)
- Assurance colony (Austin Salamander Conservation Center)
- Habitat restoration (Eliza Spring Daylighting, Sunken Garden)
- Population monitoring and research (are we meeting biological goals of HCP?)
- Barton Springs Zone Spill Response Plan
- Conservation Fund



Pool drawdown after flood



intact pipe



work area



gravel placed after removal





Captive Breeding Population

- Austin Salamander Conservation Center
- Refugium populations to preserve gene diversity in case extinct in wild



Before



Habitat restoration:

Eliza Daylighting in 2017

After



“stream”

“pool”







Eliza survey

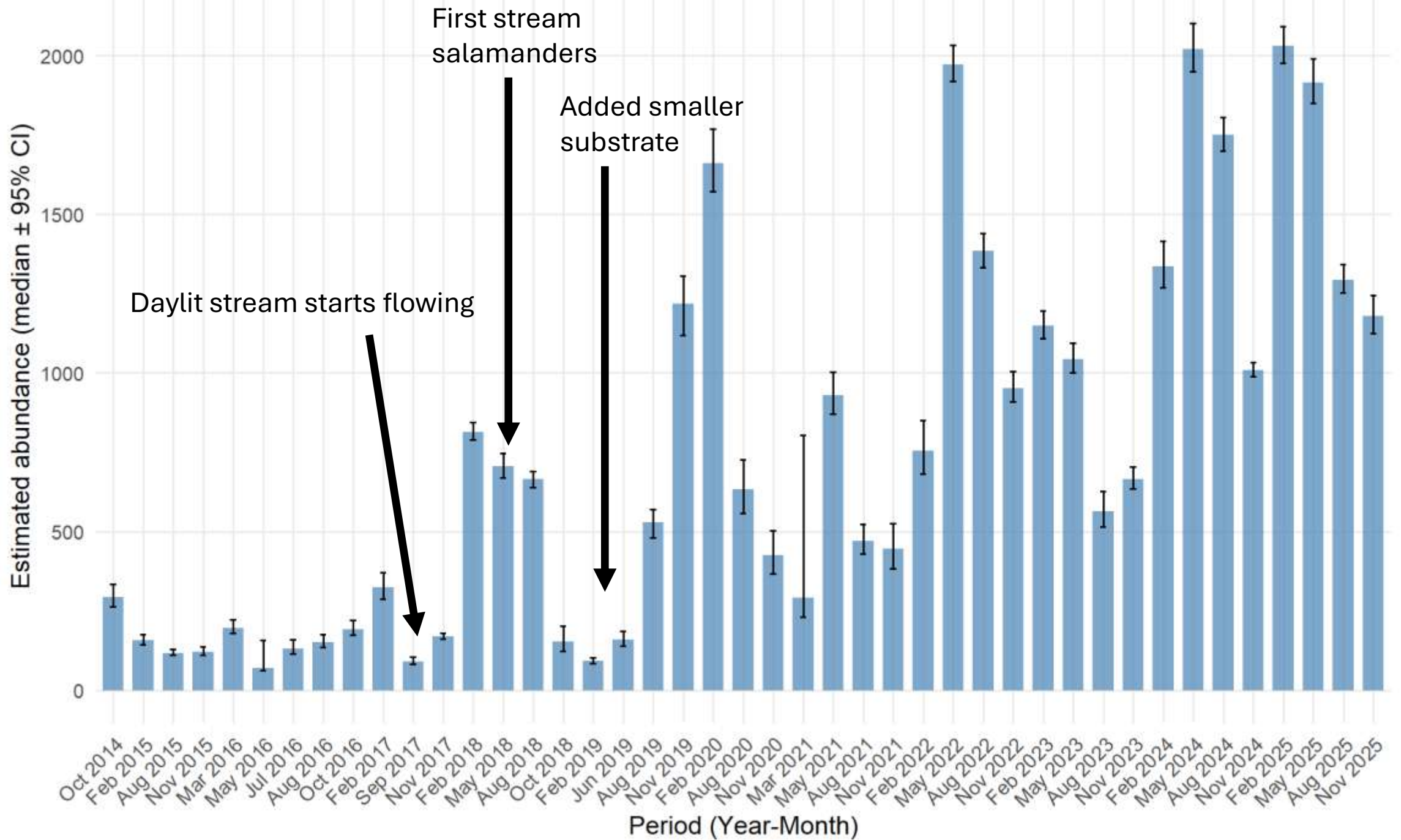


Underwater view



1997 salamander survey crew





Questions/comments

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