

September 30, 2022

City of Tucson (COT) Design Review Board (DRB) Meeting October 7, 2022

Case # DRB-22-11 / SE-22-35 (T22SE00035) Proposed New TEP Cottonwood Substation

3210 & 3255 S Cottonwood Lane, Parcel#119-18-030A, R-1 (88%) & R-2 (only 12%) Zoning

**Special Exception Request (Continued)**

The Tucson Mountains Association (TMA) continues to oppose the proposed TEP substation at the Santa Cruz River in this second letter. Our first TMA letter dated September 7, 2022 was emailed, with several maps, to the DRB Members on September 9<sup>th</sup> by Maria Gayosso before the September 16, 2022 DRB Meeting. I am writing this letter as both a TMA Board member and national Certified Floodplain Manager.

Please review the first TMA letter of specific opposition points and the maps to see the history of a meandering Santa Cruz River, erosion, and flooding to the site. This is a dangerous location for a Critical Facility large-scale utility distribution system. A Critical Facility must be elevated above the 500-year floodplain. The FEMA maps and regulations are more important at this site than the Federal requirements for an electric utility.

At the September 16<sup>th</sup> DRB Meeting, the applicant did not provide enough design details and did not answer many questions by the DRB Members. For example, why did TEP choose this site? The applicant did not answer the question. Previously TEP looked at eight alternative site locations with less erosion and flood history.

Also, during the September 16<sup>th</sup> DRB Meeting, the City Zoning Examiner said the DRB experts should interpret the UDC for each case, which can expand the DRB's Purview in UDC Section 4.9.11.A.8. DRB review can include:

- Proposed substation has commercial improvements of walls, signage, poles, noise, and radiation that are not in keeping with the Residential Zone nor compatible with adjacent neighbors, human or wildlife.
- Proposed site is a dangerous location not suitable for a utility distribution system. A substation is a Critical Facility that should not be located within a City of Tucson Erosion Hazard Setback (EHS) and should meet the FEMA standard for 500-year flood protection. The EHS is 1,230 feet in a curve. The Santa Cruz River curve and 30-degree angle of floodplain to the site are shown on the topographic maps.
- There is FEMA mapped 500-year floodplain on the site. The Special Exception Drainage Report indicates grading to fill the existing pit, which requires City approval, to eliminate the 500-year floodplain. Filling the pit will raise the 500-year water surface elevation and require the 14-foot transformers to be higher than the proposed design elevation and visible above the 12-foot wall height.
- A contributing design feature not shown on the applicant plans nor discussed in the September 16<sup>th</sup> DRB Meeting is proposed bank protection. Any bank protection should be designed using the FEMA floodway velocity of 13 feet per second (fps), since the steep bank slopes are next to the Santa Cruz River floodway and 100-year floodplain mapped by FEMA. The Drainage Report included rock rip-rap protection designed for only 8-9 fps. The entire natural width is the floodway used to convey the 100-year flood.

TMA appreciates the Design Review Board reviewing both opposition letters and maps. The DRB experts understand codes, regulations, and maps. It makes common sense to avoid putting an electric substation next to the Santa Cruz River at a site with erosion and flood history, which can be exacerbated by the uncertainty of climate change. TMA requests the DRB find the project **NOT IN COMPLIANCE** for a Special Exception Request.

Sincerely,



Steve Dolan

Tucson Mountains Association (TMA) Board member & Certified Floodplain Manager (CFM#106)

**From:** Abreeza Zegeer <AbreezaMZ@hotmail.com>  
**Sent:** Thursday, October 6, 2022 8:38 AM  
**To:** Maria Gayosso <Maria.Gayosso@tucsonaz.gov>  
**Subject:** [EXTERNAL] DRB 10/7/2022

Ms. Gayosso,

I would like to submit the following statement/comment to the DRB.  
Thank you, Abreeza

To: Design Review Board (DRB)  
Re: TEP Cottonwood Substation DP22-0188, T22SE00035  
Date: 10/07/2022

The proposed TEP Cottonwood Substation site at 3210 S Cottonwood Ln is within 50 feet of the 1970's established mobile home park, Desert Pueblo. TEP request for a special exception to build the substation at this site because of its R-1 status and relationship to the Santa Cruz River that lacks bank protection.

1. There will be a constant hum of the station at 62 decibels (dB) between the hours of 10pm and 7am, as stated during the June 22, 2022, neighborhood meeting. TEP did not state the daytime decibels, between 7am and 10pm, at this meeting or the DRB meeting on 9/16/2022 and not stated in the new presentation materials. The noise level of substation power transformers typically generates a noise level ranging from 60 to 80 dB. 60 dB = talking/background music. 80 dB = inside an airplane/electric vacuum. Sounds over 70 dB can cause hearing loss over time. (Hearing Health Foundation)
2. The DRB requested on 9/16/2022 cross sectional views of static and transmission lines on site as well as adjacent properties. The presentation materials for the 10/7/2022 meeting lacks height data within the site plan (pages 6 & 7) and lacks specific information of the off-site height and location of Static Mast and H-frame located on properties NW of the site (page 12). Page 13 shows Drop-in poles (on-site) from page 12 but not the Static Mast and H-frames located off-site.
3. The City owns the properties NW of the proposed TEP substation site where the Static Mast and H-frame transmission lines located. The original development package submitted by TEP should have included the location and height off-site transmission lines because it will affect the aesthetics and site lines in the area.
4. The proposed TEP Paseo De Las Iglesia (PDLI) path on Cottonwood Ln is not within Pima County PDLI project limits and does not have northern connectivity to the PDLI path. Is there a reason TEP did not place the PDLI path along the eastern boarder of the TEP site along the Santa Cruz River planned PDLI path?

There were 8 other proposed sites not including the current temporary site at Ajo and Cottonwood Lane where bank protection already exists, Two of the 9 sites, 3 and 8 would have been more sensitive to residences and the environment, built on more stable ground and farther away from the banks of the Santa Cruz River. TEP bought

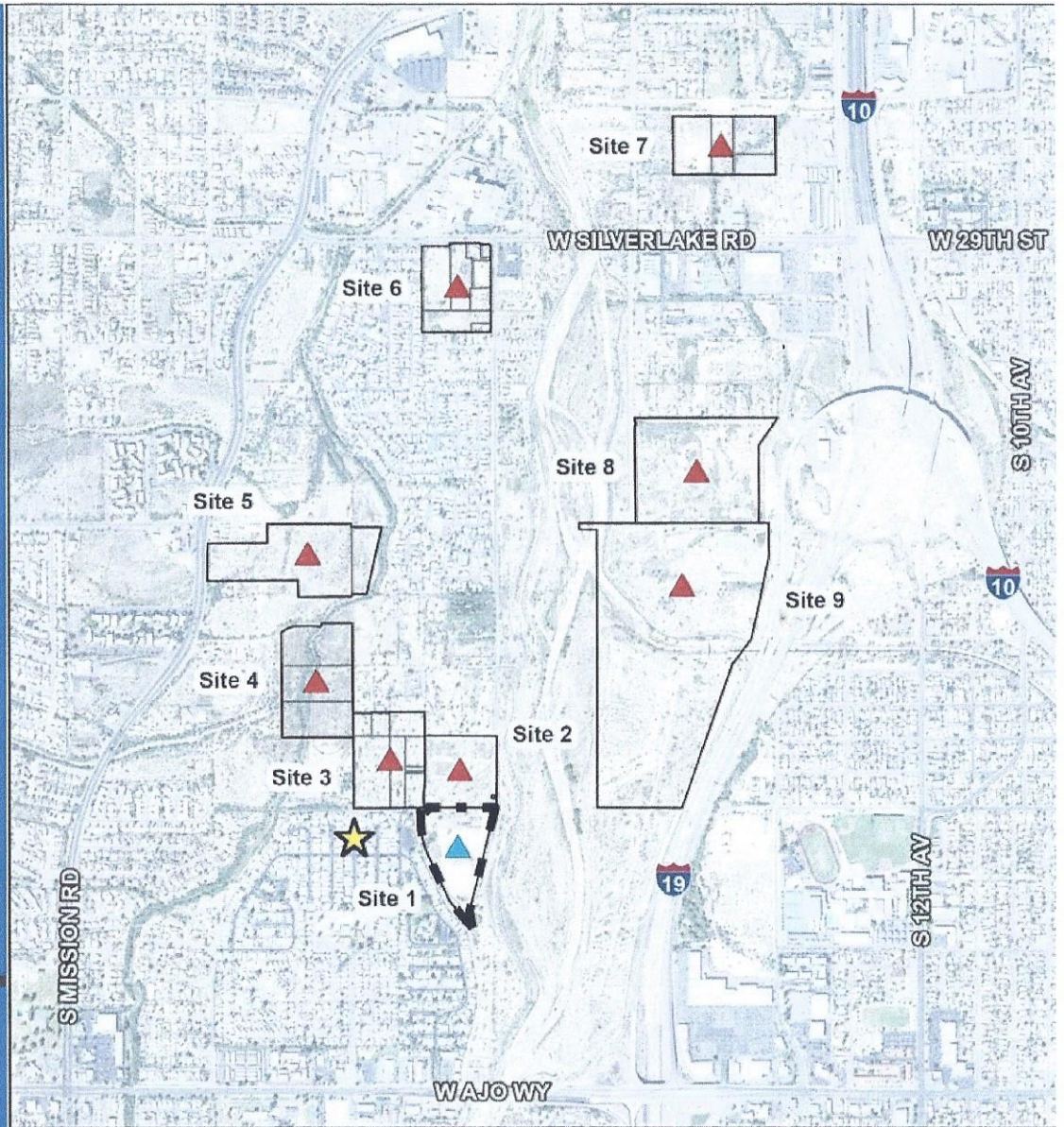
this R-1 zoned land that contains a mixed bag unstable fill next to the Santa Cruz River. TEP knew they would need a special exception to build their substation here. One of the reasons TEP chose this site, as stated at the neighborhood meeting (question #6) was it is, "the most cost-effective siting option."






[Microsoft Word - Sonoran-WEC 138 CEC Application FINAL V6 \(tep.com\)](#)

Thank you for your attention,  
Abreeza Zegeer, Westside Neighborhood Association

Sent from [Mail](#) for Windows

# Parcel Selection



-  Preferred Site Location
-  Alternative Site Locations
-  Load Center
-  Site Areas
-  Subject Parcel

Sources: Esri, UNS, TEP,  
and Pima County GIS.  
Projection: NAD 1983 UTM Zone 12 N  
Basemap: PAG Imagery 2019

