

# Improving Access to the San Diego National Wildlife Refuge Complex for Under-served Residents


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**What is the Transportation Scholars Program?**  
The Public Lands Transportation Scholars program provides public lands with transportation professionals for six to 12 months who assist in transportation planning and implementation to help public lands reduce traffic, congestion and pollution while improving visitor experiences. These programs are designed to place individuals with substantial knowledge and expertise in transportation planning and related areas. *See footer for a list of sponsors.*

### Background

**The place: three fragmented Refuges integrated in urban environment**

The Complex consists of two coastal wetland National Wildlife Refuges (NWR) immediately adjacent to dense urban development and one inland NWR in the arid foothills of rural east San Diego County.



**The challenge: disconnect between under-served communities and NWR's**

- Informal and undefined borders, access points, and trails make it difficult to access Refuges, especially without a vehicle
- 28 miles by road between the furthest access points
- Neighboring under-served communities unaware of existence or importance of NWR's

**The approach: a transportation plan**

Write a multi-modal transportation plan focusing on improved alternative transportation (AT) systems and marketing efforts.

### Marketing Existing Alternative Transportation Systems

**Where does the under-served population live?**

**Create needs index:**  
The needs index was used for the USFWS Regional Alternative Transportation Evaluations and CAR-LESS California based on:

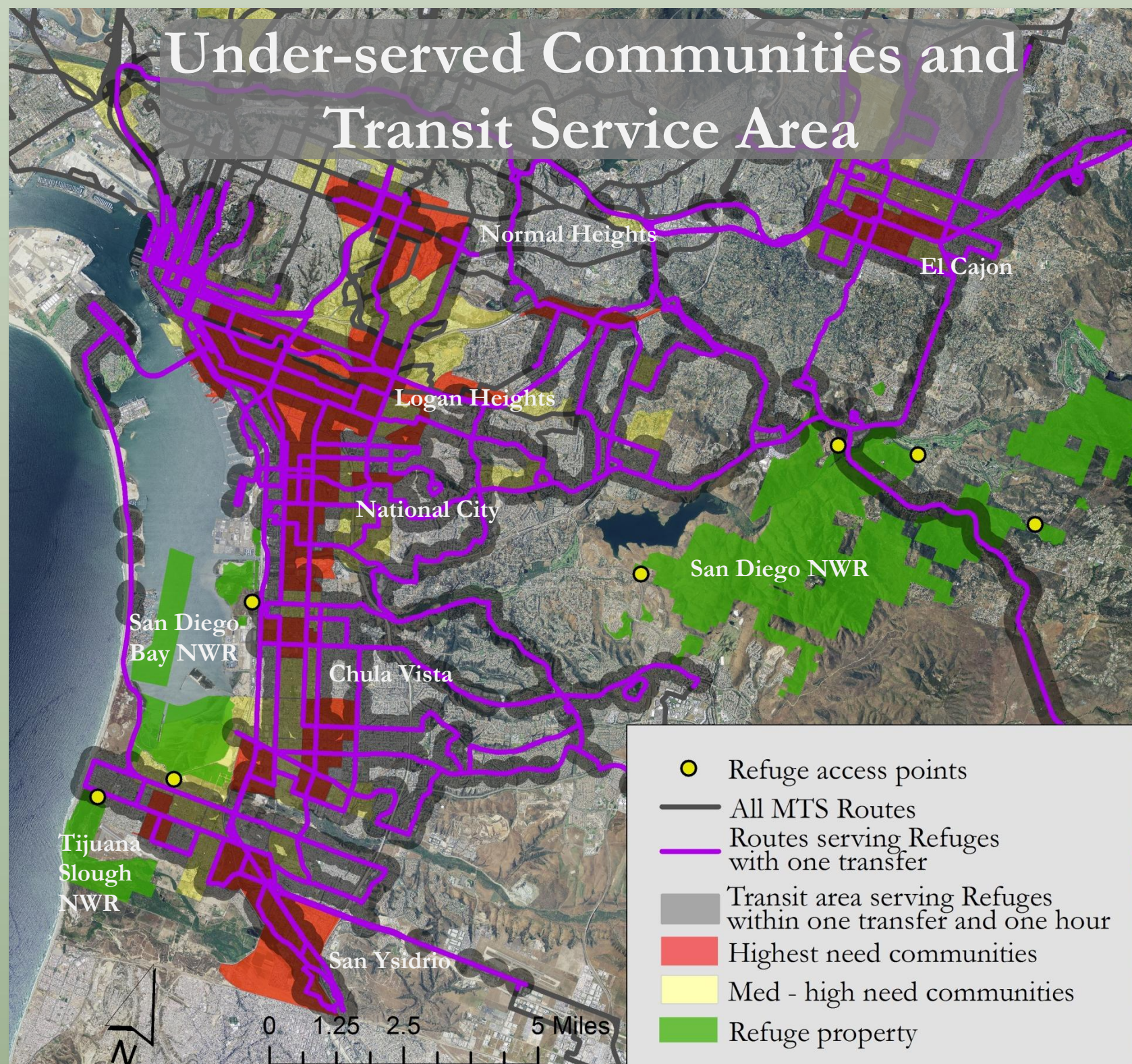
- median household income
- average number of vehicles per household
- percentage of households receiving food stamps
- percentage of racial minority

**How can they access the Refuges by existing facilities?**

**Transit:**  
Ten routes provide direct access to the Refuges with many more routes connecting with a transfer.

**Bike:**  
Four regional multi-use paths can be used to access the Refuges. The region also has a growing number of bike lanes that serve the Refuges.

#### Under-served Communities and Transit Service Area



### Recommendations to Better Connect the Refuges to AT Systems

**Improve connection to transit!**

**Request bus routing improvements:**  
The Metropolitan Transit System (MTS) consists of over 90 bus routes and three light-rail trolley lines. The scholar has identified routing alternatives to improve transit connection between under-served communities and the Refuges.


Next steps include garnering support from neighboring municipalities and other partners, then bringing proposals to the MTS.

1. Identify Improved Bus Routing
2. Garner Support from Partners
3. Propose Changes to MTS

**Improve connection to bike system!**

**Support an improved Sweetwater Bikeway (SB):**  
There is a collection of trails, owned by multiple jurisdictions, that runs from the SDBNWR east to the SDNWR, connecting the two Refuges. The western portion is paved, while the eastern segments are unpaved and undefined.

Developing the Sweetwater Bikeway is consistent with local municipalities plans to build a well-defined, unified, paved trail that seamlessly connects the two Refuges.



**Improve safety of pedestrian facilities!**

**Example: improve pedestrian linkage between transit and San Diego Bay NWR**

There is a transit stop 0.25 miles away from the access point, but pedestrians must walk across train tracks, over a highway, and then cross an intersection with no pedestrian signal.

The Transportation Plan recommends working with partners to add a cross walk to all intersections and improve the visitor experience with wayfinding and informational signage at the transit station and along the sidewalk.

