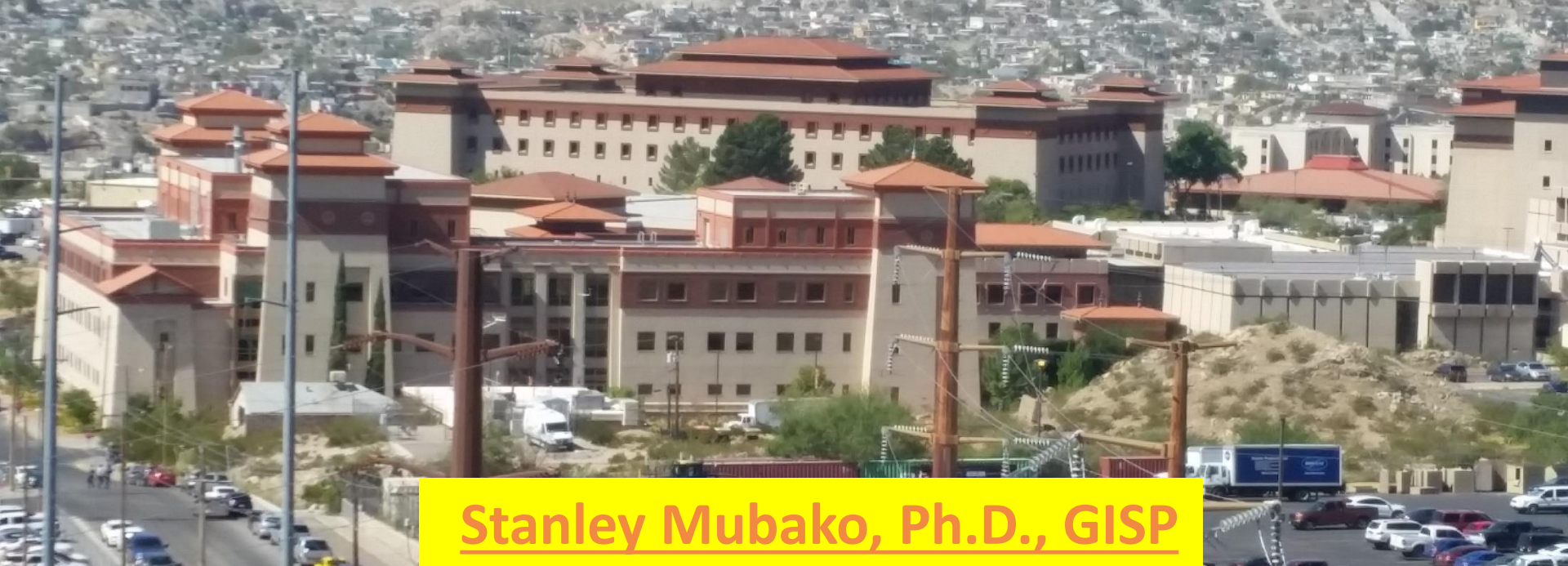


Paso del Norte Collaborative K12 GIS Capacity Building and Research for Environmental Quality Monitoring



Progress Presentation for JAC 73rd Ordinary Meeting Las Cruces, NM: September 20, 2018



Presentation Structure

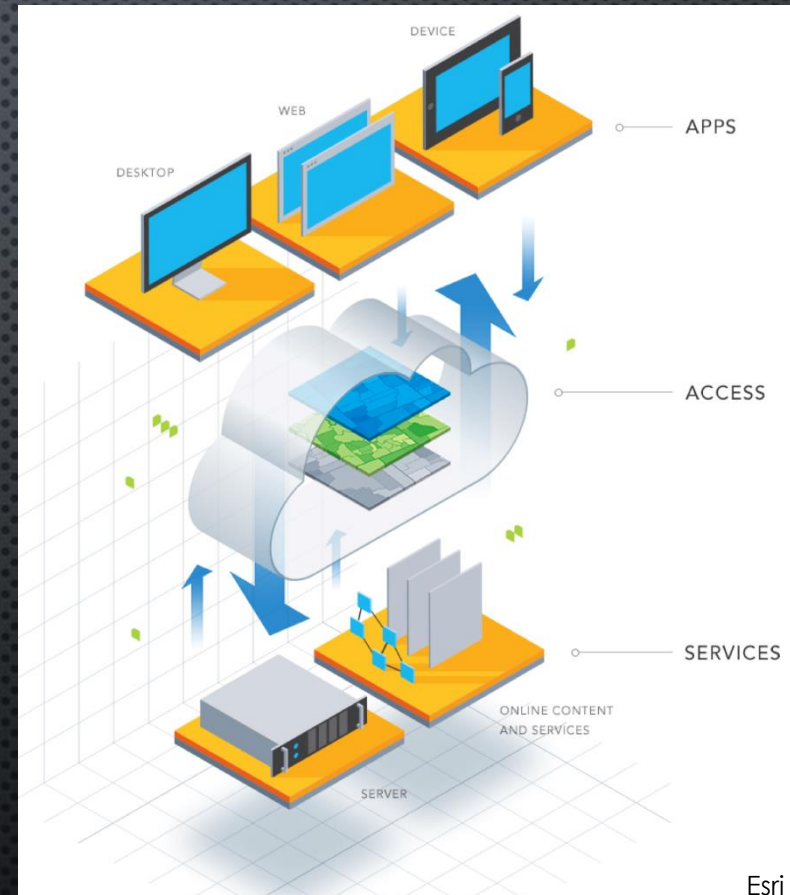
- Brief Overview of:
 - GIS technology
 - Project Study Area
 - Project Goal
 - Project Objectives
 - Project Benefits to Public & Environment
- Progress Presentation through a GIS-based web application

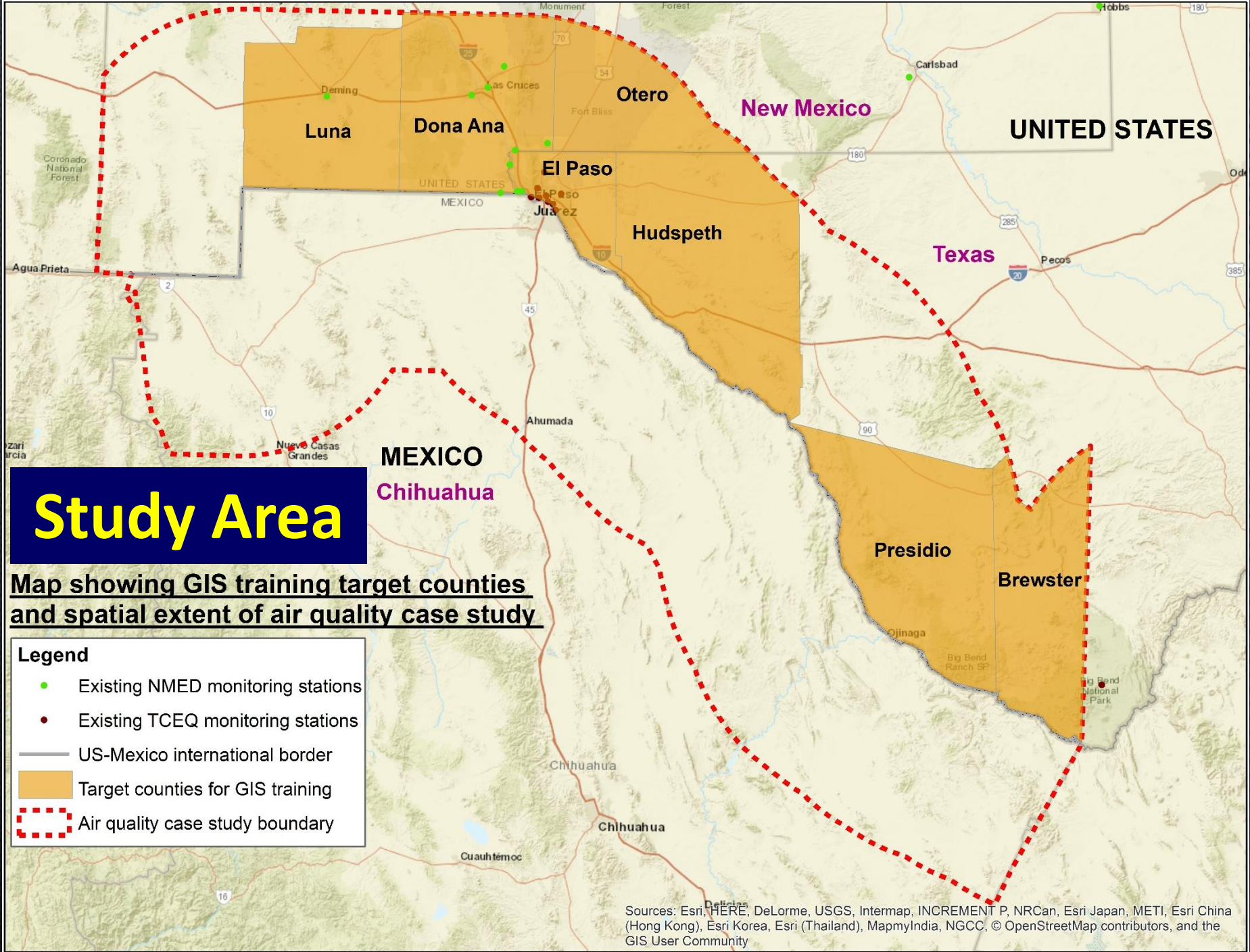


GIS Overview

Geographic Information System (GIS):

- A computer system for capturing, storing, querying, analyzing, and displaying location-based data
- Paso del Norte region still lagging behind in early adoption of GIS technology:
<https://tinyurl.com/yaws48qj>





Study Area

Map showing GIS training target counties and spatial extent of air quality case study

Legend

- Existing NMED monitoring stations
- Existing TCEQ monitoring stations
- US-Mexico international border
- Target counties for GIS training
- Air quality case study boundary

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Project Goal



- Contribute to air pollution reduction and address other priority environmental issues in the Paso Del Norte region through K12 GIS capacity building and research

Project Objectives

- Build GIS capacity in environmental health to promote its short and long-term adoption in the Paso Del Norte region through train-the-trainer workshops for K12 educators
- Help answer research questions related to air quality and other priority environmental issues relevant to the U.S.-Mexico border region
- Implement educational outreach efforts to promote environmental literacy and awareness



Benefits to Public & Environment

- GIS-trained teachers who can successfully create technology-enhanced and inquiry-based lessons
- Unlock potential of K12 students to make a difference in local communities through critical thinking & spatial data analysis in environmental problem solving

- Technology integration into & transfer of GIS practical skills to students
- Increased student engagement & preparation for college
- Provide students with an essential skill → more options for future careers



Progress Presentation

(Through a dynamic GIS-based web application)

- Quarter 1 (March- May 2018)
- Quarter 2 (June-August 2018)
- Lessons Learnt
- Plans for next Quarter (Sep-Nov 2018)
- Concluding remarks



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