

# Eco-Logical GIS Tool

## Sungmin Lee

Manager of Data Visualization, Data Analytics and Research Department

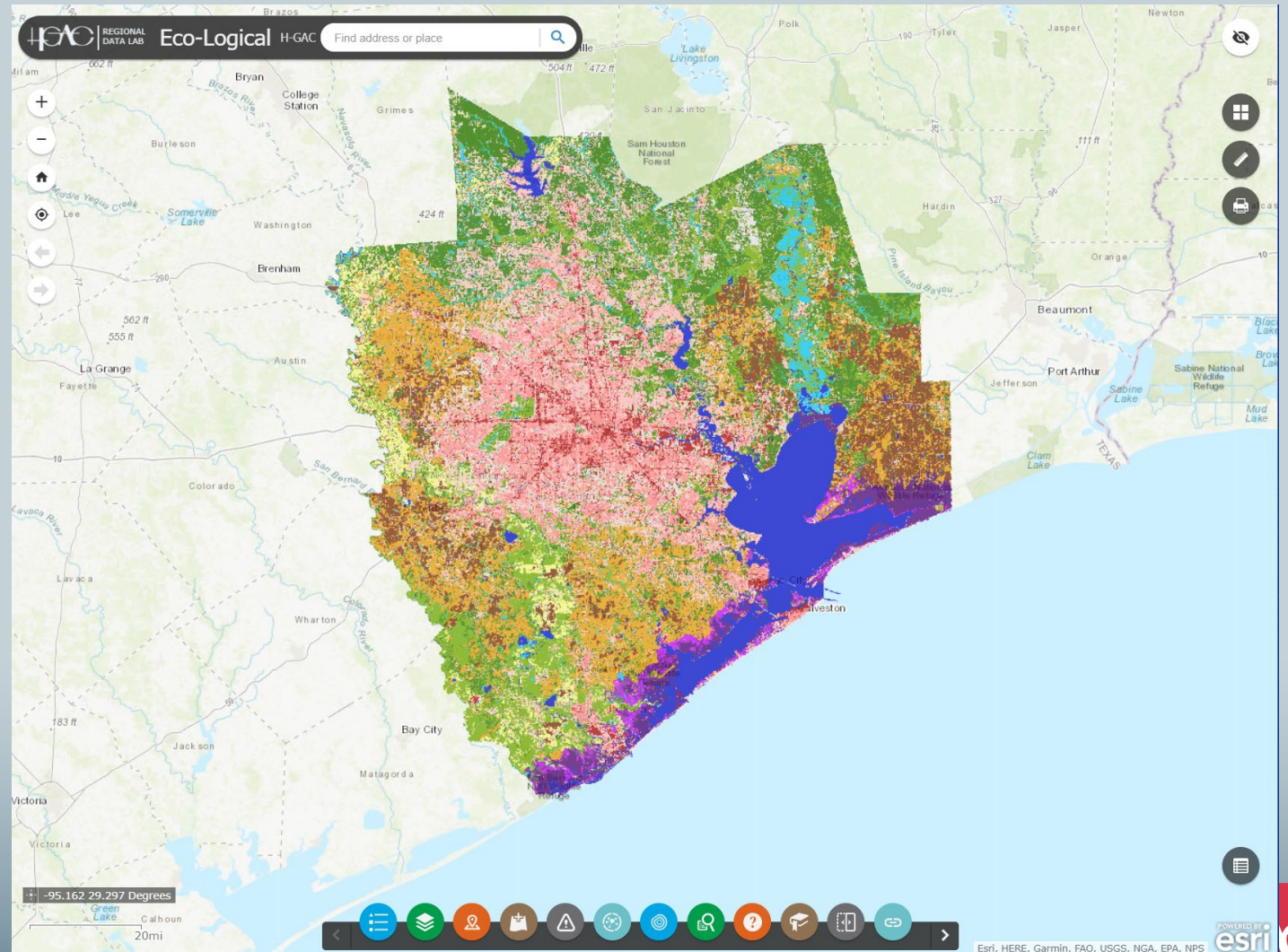
Houston-Galveston Area Council

RTP Project Development Process: Project Sponsor Workshop May 14, 2024

# What is Eco-Logical GIS Tool?

- The Eco-Logical GIS Tool allows users to measure the impacts associated with future transportation projects in the early stages of planning process.
- It helps in preserving the critical ecological resources that are necessary for maintaining and improving the quality of life in the region.

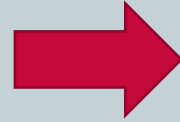
<https://datalab.h-gac.com/EcologicalGIS/>



# What is Ecological Layer?



**Eco-Logical Advisory  
Committee**



## Ecological Type

1. Upland Forest
2. Bottomland Forest
3. Prairies
4. Tidal Prairies
5. NePrairie Grasslands
6. Freshwater Wetlands
7. Tidal Wetlands

## Not Ecological Type

1. Barren Lands
2. Row Crops
3. Open Water
4. Developed High Intensity
5. Developed Medium Intensity
6. Developed Low Intensity
7. Developed Open Spaces



# What is Red Flag Report?

**Red Flag Report**

Report Area : 5,120.58 acres

Back

- Airports (INF) (0)
- Education Facilities (INF) (1)
- Hospitals (INF) (0)
- Religious Facilities (INF) (0)
- Pipelines (INF) (34)
- Railroad (INF) (0)
- Trails (INF) (0)
- Cemeteries (INF) (0)
- Managed Lands (INF) (1)
- Recreational Facilities (INF) (2)
- Mines & Mineral Resources (MIN) (0)
- Sand & Gravel Operations (MIN) (0)
- Wells (MIN) (0)
- Brownfields (HAZ) (0)

**Red Flag Report**

**Area of Interest (AOI) Information**

Area : 5,120.58 acres  
Sep 28 2020 14:25:44 Central Daylight Time

**Education Facilities (INF)**

#	Name	School Type	Address	City	State
1	MEYER EL	PUBLIC SCHOOL	1930 J MEYER RD	RICHMOND	TX

**Pipelines (INF)**

#	Operator	System Name	Diameter	Commodity	System Type	County	Length(mi)
1	ENTERPRISE CRUDE PIPELINE LLC	SEAWAY	30	CRUDE OIL	Crude Transmission	FORT BEND	4.23
2	DCP INTRASTATE NETWORK, LLC	SAN JACINTO SYSTEM	16	NATURAL GAS	Gas Gathering	FORT BEND	3.17
3	PHILLIPS 66 PIPELINE LLC	BENEDUM TO SWEENEY	10.75	HIGHLY VOLATILE LIQUID (HVL)	Highly Volatile Liquids (Propa)	FORT BEND	2.41
4	ENTERPRISE CRUDE PIPELINE LLC	TEPROO SOUTH TEXAS CRUDE LINES	36	CRUDE OIL	Crude Transmission	FORT BEND	2.09
5	EXXONMOBIL PIPELINE COMPANY	BAYTOWN SAN ANTONIO (SAPL)	8.63	REFINED LIQUID PRODUCT	Hazardous Liquid Products (Gas)	FORT BEND	1.30
6	KINDER MORGAN TEXAS PIPELINE LLC	KMTP	6.63	NATURAL GAS	Gas Transmission	FORT BEND	1.26
7	KINDER MORGAN TEXAS PIPELINE LLC	KMTP	2.38	NATURAL GAS	Gas Transmission	FORT BEND	< 0.01

## INFRASTRUCTURE (10)

Pipelines, Railroads, Religious Facilities, Managed Lands, Cemeteries, Schools, Airports, Hospitals, Recreational Facilities, & Trails

## MINING / MINERAL EXPLORATION (3)

Petroleum Well, Mines & Mineral Resources, Sand & Gravel Operations

## HAZARDOUS MATERIALS (7)

Brownfields, Superfund Sites, Active/Closed Landfills, NPDES Facilities, RCRA Sites, & Underground Storage Tanks Facilities

## WATER RESOURCES (4)

303d Impaired Waterways 303(d) Listed Impaired Waters, FEMA Floodplain, Rivers and Streams, & Lakes /Ponds

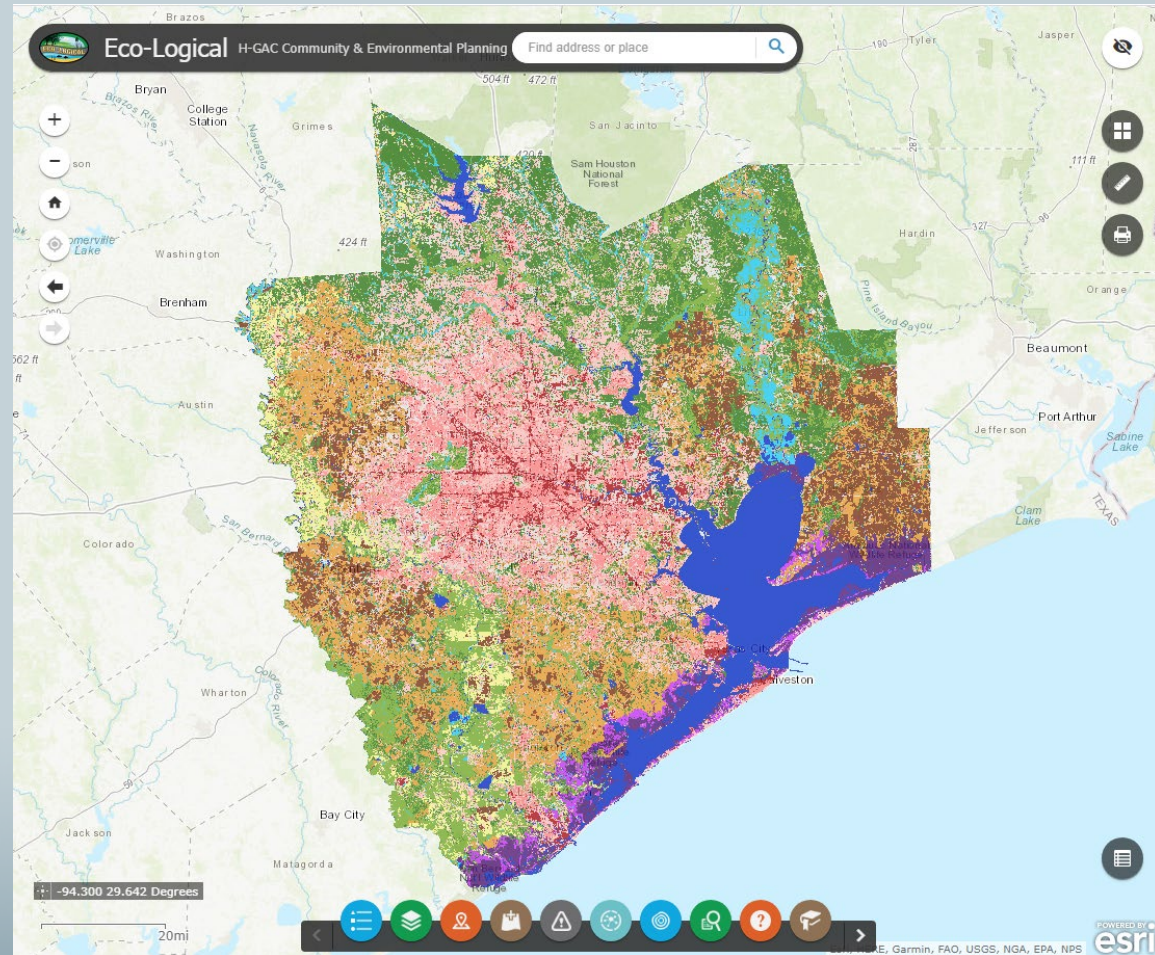
## CULTURAL RESOURCES (2)

Archeological Sites & Historical Sites

## ECOLOGICAL RESOURCES (5)

Eco-Type land Prime Farmland, FWS Critical Habitats, Rare, Threatened & Endangered Species, & Vulnerable Population

# Demonstration



<http://data.hgac.com/EcologicalGIS/>

# Contact Information

**Sungmin Lee**

Manager, Data Visualization, Data Analytics and Research  
Department

Houston-Galveston Area Council

Email: [Sungmin.Lee@h-gac.com](mailto:Sungmin.Lee@h-gac.com)