



# Funding Oil Field Abandonment

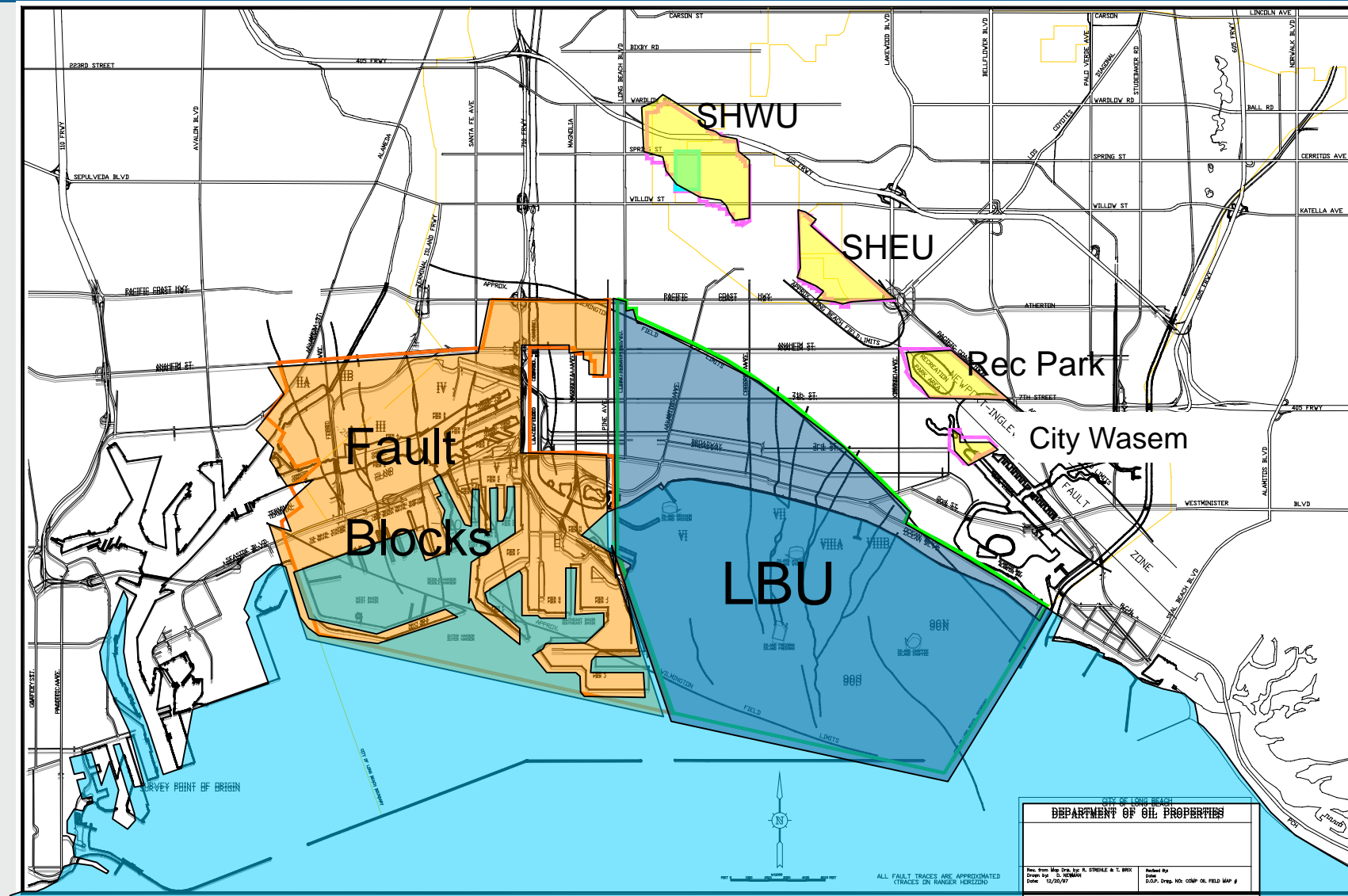
Sustainable City Commission Meeting  
December 3, 2021

# City's Role In Oil Operations

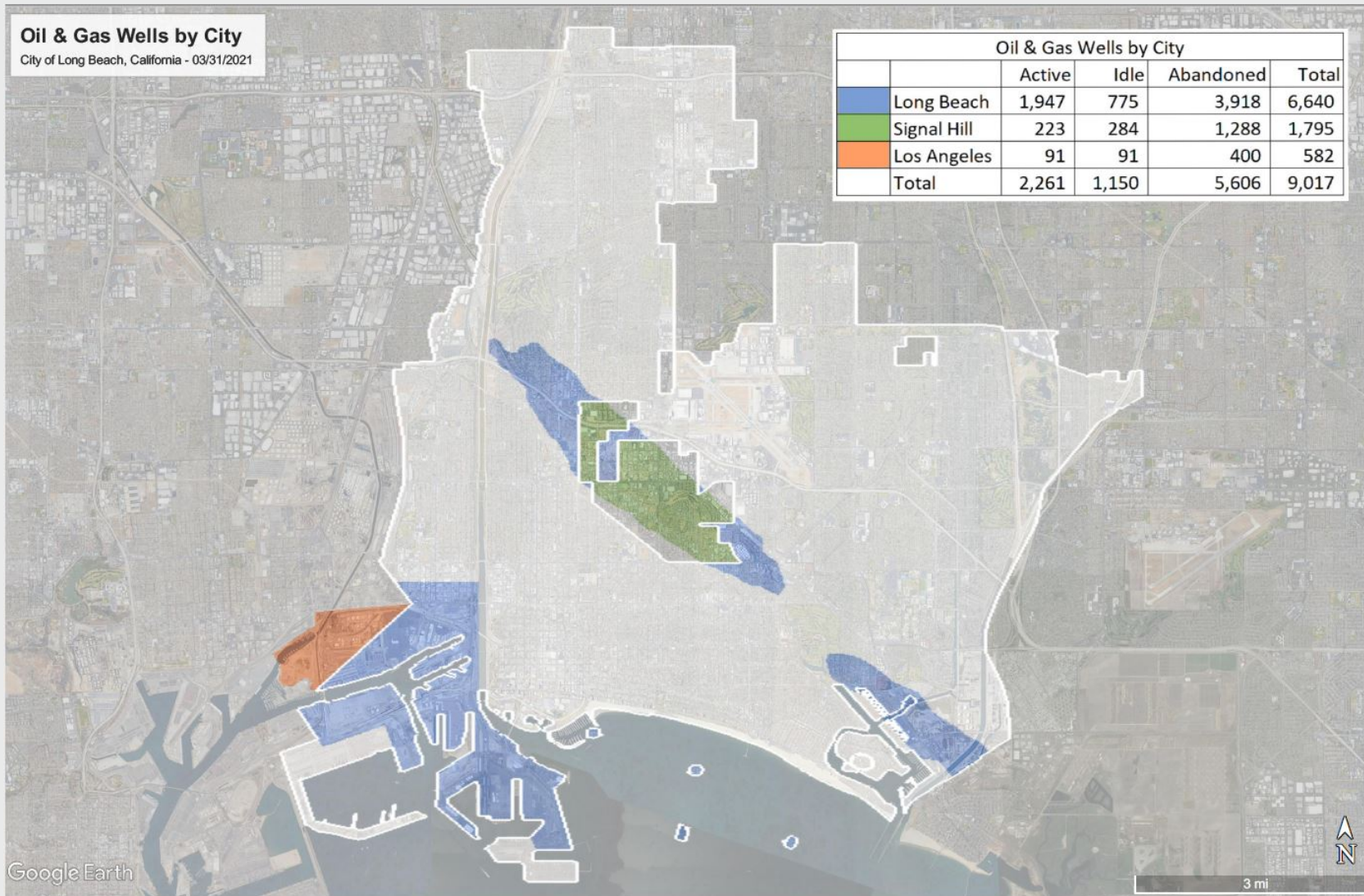
- The City, through its Long Beach Energy Resources Department (LBER), is the Unit Operator of oil and gas assets located within the Wilmington Oil Field.
- Trustee for the State of California's oil assets in the Long Beach Tidelands.
- Review other oil operations where the City of Long Beach (City) has a financial interest.
- Oversee oil production of approximately 10 million barrels of oil per year and management of over 2,400 active and idle production and injection wells.
- Subsidence management and post-production planning.
- Ensure the environment is protected and no adverse conditions are caused by oil operations.



# Oil Operating Areas



# City's Well Count



# History

- 1911 – Long Beach Tidelands conveyed to the City of Long Beach
- 1936 – Wilmington Oil Field discovered
- 1950's – Rate of Subsidence 2.4 feet/year
- 1956 – Chapter 29 established the Subsidence Fund
- 1958 – Subsidence Control Act provided the City tools to combat elevation loss
- 1960's – Unitization of West Wilmington to control subsidence
- 1962 – City election to lift drilling ban
- 1964 – Chapter 138 and the establishment of the LBU
- 1991 – LBU OWPA
- 1994 – Port of Long Beach purchases UPRC
- 2001 – Oxy buys THUMS
- 2006 – Oxy buys Tidelands Oil Production Company
- 2012 – West Wilmington OWPA
- 2014 – Oxy spins off its California operations to become California Resources Corporation (CRC)

# Environmentally Responsible Closeout

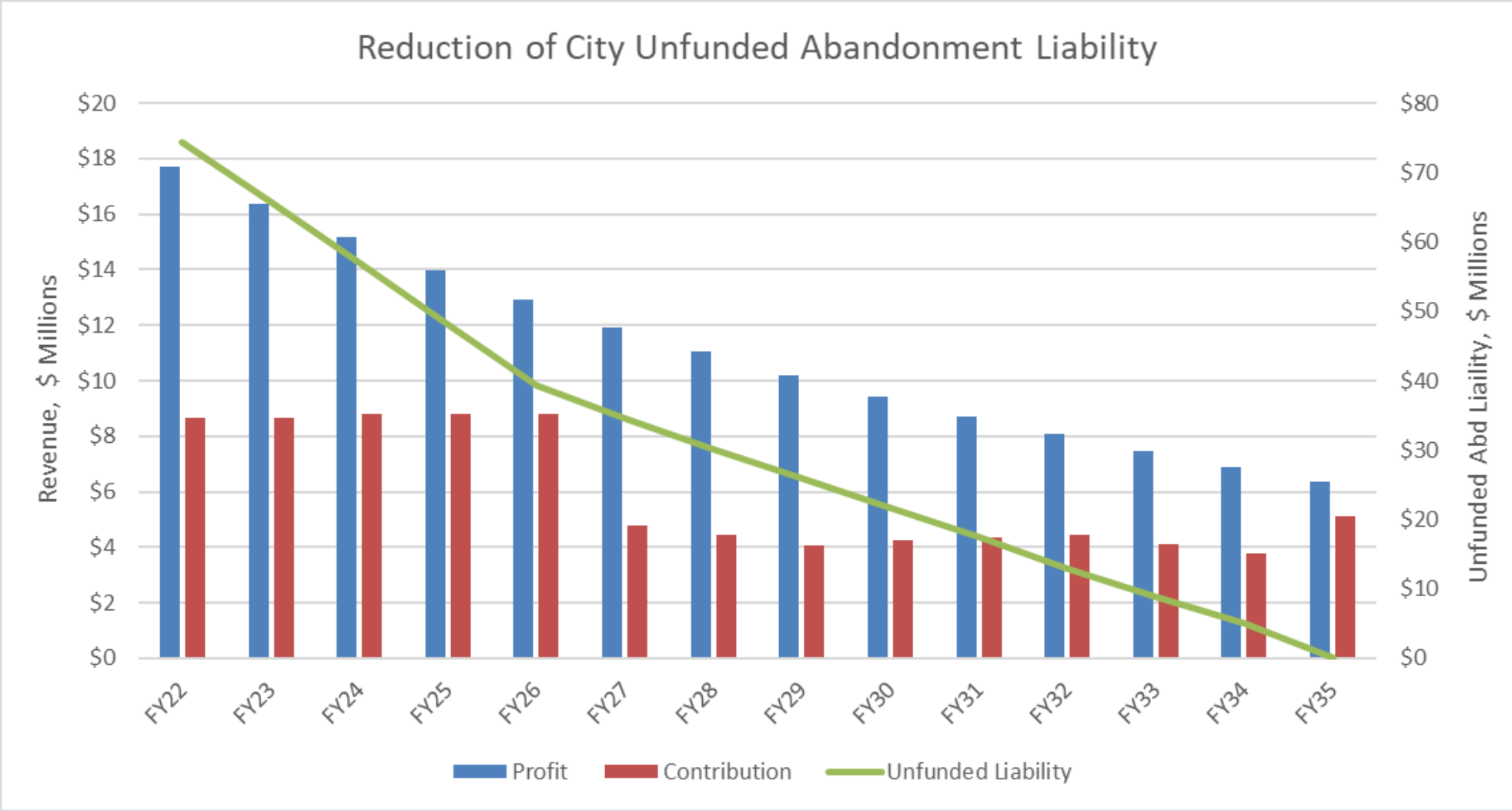
- Long Beach understands and supports the position that oil production is not in our long-term future. Our City has been planning for the end of life of the field, which currently is estimated to be in advance of the Governor's 2045 target date.
- Total oil field abandonment liability is approximately \$1.1 billion.
- Each well and facility is unitized, which means the ownership and abandonment liability is shared amongst many owners.
- The agreements that govern the oil field place the abandonment liability on the owners, which is mostly the State and City.
- The City would need to use the General Fund or Tidelands Operating Fund (TOF) if it were unable to reserve the appropriate abandonment liability amount when oil operations cease.
- The City plans to take advantage of higher oil prices by reserving additional funds for the environmentally responsible close out of the oil operations.



# City's Share of Abandonment Liability

- City's abandonment liability is split between the TOF and Uplands Oil Fund. Liability is directly tied to our ownership in the oil field.
- City began reserving for the oil field abandonment over 20 years ago. Estimated current unfunded liability for the City is \$74.3 million.
- TOF has an abandonment reserve of \$46.8 million and an estimated liability of \$110.3 million.
- Uplands has an abandonment reserve of \$12.2 million and an estimated liability of \$23 million.
- For FY 22, LBER plans to reserve \$7.125 million and \$1.625 million in TOF and Uplands respectively. This amount is about 25% higher than previous years to take advantage of higher oil prices.
- Removal of the THUMS oil islands are not part of the abandonment estimate. The oil islands will be repurposed when they are no longer needed for oil operations or subsidence management.
- City regularly abandons wells that are no longer useful on an annual basis. LBER plans to increase that number of wells abandoned each year.

# Fully Funded Abandonment Liability by 2035





# State's Share of Abandonment Liability

- State has the majority of the abandonment liability because they own the majority of the oil field.
- The State currently has reserved \$300 million for their share of the abandonment.
- The overall abandonment liability for the State is \$967 million, which leaves an unfunded liability of \$667 million.
- The State requires legislative approval to increase their abandonment reserve above the current \$300 million amount. The City has supported efforts toward this approval.
- The State is studying a proposal to end all oil production in California by 2045. It is unknown how this study will fit with the City's timing for closing the oil field.

# CRC's Share of Abandonment Liability

- Based on the operating agreements, CRC has a minimal abandonment liability.
- CRC has an abandonment liability of approximately \$56 million.
- State legislation now requires operators to bond for their abandonment liability, which CRC has complied with.
- The operating contract with CRC has no end date but continues for the economic life of the oil field.

# Townlot Mineral Interest Owner's Share of Abandonment Liability

- There are over 6,000 individual mineral interest owners (Townlot Owners) in the Wilmington Oil Field.
- Most of the Townlot Owners are homeowners who obtained their ownership through the mineral rights associated with their property.
- The total abandonment liability for the Townlot Owners is approximately \$65 million.
- The average Townlot Owner would owe about \$10,000 for their share of the oil field's abandonment liability.
- City is working with the Townlot Owners to help them prepare for this expense.
- Townlot Owners have the option to quitclaim their ownership in the oil field to avoid the abandonment liability.

# Abandonment Planning Risk

- Oil price collapse - Oil prices need to support funding the abandonment reserve while also providing net revenue to the City to support services.
- Cost to abandon the oil field increase faster than anticipated. LBER assumes a cost savings when the entire focus of the operation will be on abandoning the oil field.
- Regulation changes that could increase the cost of abandonment or shorten the economic life of the oil field before the targeted date of 2035.
- A financial situation that requires the City to use the abandonment reserve for another purpose.



# Post-Production Subsidence Management

- Unknown what impact surface elevations will have once the oil field is no longer operational.
- Injection support will be required for a period of time after the production wells have been shut-in.
- Post-production injection support may last 5 to 15 years.
- Post-production injection support will require wells, facilities, and a source of water.
- State legislation established a subsidence fund to pay for the management of surface elevations post-production. The fund has \$180 million available.
- Once the post-production injection support is no longer needed, the remaining wells and facilities will be abandoned.

# Financial Impact of Oil Operations

- Total annual net revenue to the City is estimated at \$45 million for FY 22.
  - \$28 million to the General and Tidelands Funds from City oil ownership.
  - An additional \$17 million in tax revenue from Property Tax, Sales Tax, and Utilities Users Tax.
  - Measure US implemented in FY 22 to fund initiatives addressing climate change, community health and youth services.
- Over 1,000 local jobs supported by oil operations in the City.
- The oil revenue funds public safety, community services, and capital projects within the Tidelands.
- State of California's net revenue in FY 21 from the Wilmington Oil Field was approximately \$70 million.
- Oil operations have generated more than \$5 billion for the City, State and County since 2003
- Thousands of individual mineral interest owners (6,000+) are also stakeholders in the Wilmington Oil Field.


# Safety and the Environment

- LBER is fully committed to continuing to protect the City's environmental landscape and ensuring no adverse conditions arise as a result of its oil operations
- No major spills to the ocean in the history of the City's oil operations. Over the last ten years, a total of 10 gallons of oil have spilled into the ocean.
- Well drilling is limited to areas defined in the Long Beach Municipal Code.
- No fresh water is used in the oil operations.
- No hydraulic fracture well stimulation treatments conducted since 2013.
- City staff conduct quarterly safety inspections and assist with inspections by State regulators.
- Working on a project to provide one megawatt of solar power for the oil operations.
- Decrease in oil production represents 11 percent of the City's 2030 CAAP goal for CO<sub>2</sub> reduction.

# Summary

- Long Beach knows and supports the position that oil production is not in our long-term future.
- Subsidence management will continue beyond the life of the oil field and funding is already secured.
- The City will continue to reserve funds for its abandonment obligations and support the State's efforts to properly save for their share of the abandonment liability.
- Continue to work with the local, State and Federal agencies that regulate the oil operations.
- Maintain the best-in-class safety and environmental record at THUMS.
- Explore ideas to offset the carbon footprint of the oil operations through efforts like solar power and carbon sequestration.
- Continue to generate oil revenue for City while ensuring the environment is protected and no adverse conditions are caused by oil operations.





Thank you  
Questions?