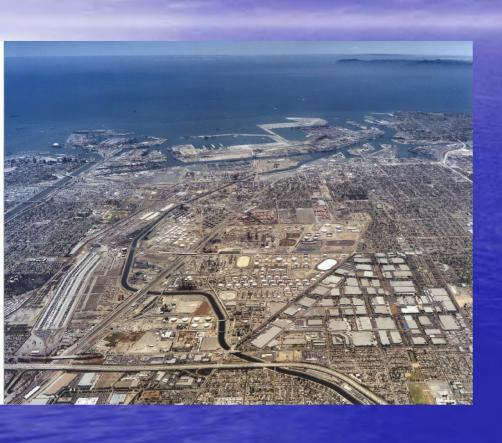
US ERA ARCHIVE DOCUMENT



## BP Carson Refinery



• 1937, 50 MBPD

2008, 260 MBPD

- Today produce>6MGD of gasoline
  - > 25% of LA usage
- >15% of the jet fuel for lax



#### Water Use

- Refineries use water
- In the beginning
  - well water was plentiful and inexpensive
- As time went on
  - incremental water came from potable water sources
- In the mid 1990s
  - wells started to foul and lose yield and we needed to find another source



# Recycle water - Phase 1

 In 2000, started using recycle water for refinery cooling towers

About 50-70% of the refinery cooling water is recycle water





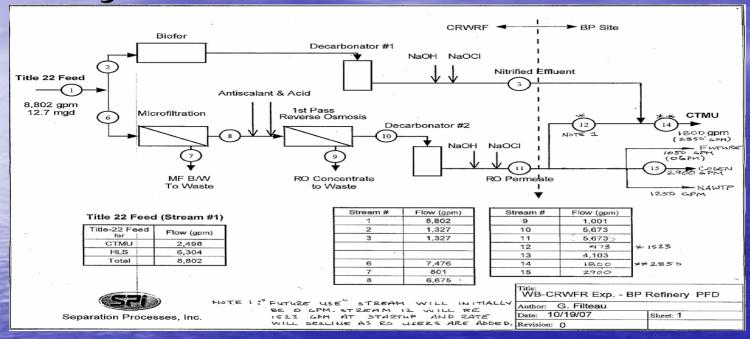
## Recycle water - Phase 2



- In 2007, started up a new reverse osmosis plant to make BFW from recycle water
  - All the refinery BFW is now from recycle water



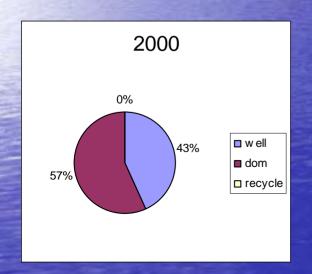
### Recycle water - Phase 3

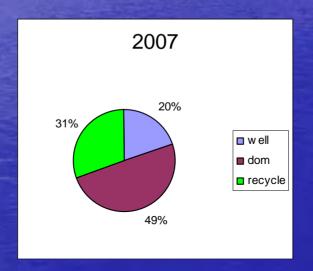


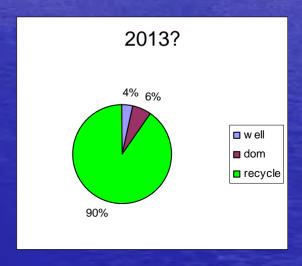
Working with West Basin to put our Cogen and the rest of the refinery cooling water demand on recycle water, 2011-2013?



### Past, Present and Future







Questions?