



City of Culver City

Mike Balkman Council
Chambers
9770 Culver Blvd.
Culver City, CA 90232

Staff Report

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Item #: A-1.

CC - (1) Presentation of *Capital Investment Amortization Study for the Culver City Portion of the Inglewood Oil Field*; (2) Discussion of Options for Future of Culver City Portion of the Inglewood Oil Field; and (3) Direction to City Council Oil Drilling Subcommittee and City Staff as Deemed Appropriate.

Meeting Date: August 13, 2020

Contact Person/Dept: Heather Baker, Assistant City Attorney;
Melanie Doran Traxler, Contract Project Manager

Phone Number: (310) 253-5660
(818) 248-7158

Fiscal Impact: Yes ☐ No ☒

General Fund: Yes ☐ No ☒

Public Hearing: ☐ **Action Item:** ☒ **Attachments:** ☐

Commission Action Required: Yes ☐ No ☒ **Date:**

Public Notification: (E-Mail) Meetings and Agendas - City Council (07/24/2020, 08/06/2020), Culver City News and Events (07/24/2020, 08/06/2020), Stay Informed - Inglewood Oil Field (07/24/2020, 08/06/2020); Stay Informed - Sustainability and Environmental Issues (07/24/2020, 08/06/2020), Sentinel Peak Resources (07/24/2020, 08/06/2020); and (Mail) Inglewood Oil Field Property Owners (08/04/2020).

Department Approval: Carol Schwab (08/05/2020)

RECOMMENDATION

The City Council Oil Drilling Subcommittee, consisting of Vice-Mayor Alex Fisch and Council Member Meghan Sahli-Wells ("Subcommittee") and City staff recommend the City Council:

1. Receive and consider the information contained in the *Capital Investment Amortization Study for the Culver City Portion of the Inglewood Oil Field* ("Amortization Study") (Attachment 1);
2. Direct staff, as deemed appropriate, to study other factors relating to amortization and to develop and return to City Council with a framework that: (A) resolves the incompatibility of nonconforming oil-related uses, such as through an amortization program; and (B) identifies an appropriate period to phase out oil and gas activity;

3. Authorize the Oil Drilling Subcommittee to continue its work with staff to develop details of such framework and potential amortization program; and
4. Provide other direction to the Oil Drilling Subcommittee and City staff, as deemed appropriate, on objectives to be considered for such framework and potential amortization program.

RECOMMENDED MEETING PROCESS

The objective of this meeting is to update the City Council and the community on the Amortization Study; consider how the financial analysis, findings and conclusions presented in the Amortization Study could be used to inform future decisions related to the Culver City portion of the Inglewood Oil Field ("City IOF"); discuss options pertaining to the future of the City IOF; and formulate a direction that reflects the City Council's input on these matters. The meeting is informational and intended for discussion and guidance only. Public comment may be taken, and questions may be addressed at this meeting. This meeting is not a public hearing and no formal decisions regarding an amortization program or regulations governing the City IOF will be made.

The following suggested process has been provided for City Council's reference and consideration for the format of this special meeting:

1. Opening remarks from Subcommittee;
2. Brief staff report (estimated at 5 minutes);
3. Presentation by Baker & O'Brien (estimated at 20 minutes);
4. Questions to staff and Baker & O'Brien from City Council;
5. Public participation/comments;
6. Final remarks/recommendations from Subcommittee; and
7. City Council discussion and direction to staff.

BACKGROUND

The entire surface boundary limits of the Inglewood Oil Field ("IOF"), including lands within both the City and County, totaled approximately 1,000 acres as of 2008. The City IOF, which includes solely the portion of the IOF that is within the limits of Culver City, totals 77.8-acres. (Surface boundary limit refers to the physical extent of the ground surface for which the Oil Field Operator has access and landowner permission to establish and conduct oil drilling activity. Subsurface and mineral rights limits may have different boundaries than the surface boundary.)

Oil drilling within the City IOF was first established during the 1920's. Since at least 1925, Culver City has maintained some form of regulation for oil and gas activities and for construction and operation activities relating to oil derricks and the boring of wells within the City. For at least the last 60 years, oil and gas uses have been prohibited throughout the City. However, these activities have been allowed to continue as a legal nonconforming use subject to compliance with all other City regulations.

A series of gas release and odor events in late 2005 and early 2006 stimulated increased community and City interest in the IOF activities. This was followed by a County of Los Angeles-initiated process

to establish regulations for oil and gas production activities within the unincorporated County portion of the IOF ("County IOF"). In October 2008, the Los Angeles County Board of Supervisors adopted the Baldwin Hills Community Standards District ("County CSD"), which established oil and gas regulations for approximately 900 acres of the County IOF. These regulations are only applicable to the County IOF.

Soon thereafter, Culver City initiated its own process to establish more robust regulation for oil and gas production activities within the City IOF, with the intent of replacing the existing regulations set forth in Chapter 11.12 of the Culver City Municipal Code (CCMC).

Following is a summary overview of City-initiated steps:

- In 2013, Culver City embarked on a process to enhance the regulation of future oil and gas drilling and production activities in the City. Under that initial process, a proposed set of regulations, referred to as the *Discussion Draft Oil Drilling Regulations for the Culver City Portion of the Inglewood Oil Field* ("Draft Drilling Regulations") were prepared and released for public review. The draft regulations (had they been adopted) would have amended how future oil and gas drilling and production activities within the City IOF would be conducted, maintained, permitted, reviewed, reported and monitored.
- Following an informal public review and comment period of the Draft Drilling Regulations, on June 23, 2014, the City Council adopted a resolution declaring its intention to initiate preparation of a Specific Plan based on direction presented in the Draft Drilling Regulations and an Environmental Impact Report ("EIR") to evaluate the environmental impacts related to the draft Specific Plan and Drilling Regulations.
- On September 15, 2017, the Draft IOF Specific Plan (including revised Draft Drilling Regulations) and the Draft EIR were released to the public for review and comment. The range of public input received on both draft documents was broad and varied, with diverse preferences as to the level of oil activity, its potential regulation, and alternative uses of the land. The Draft IOF Specific Plan outlined a scenario for which existing oil activity would be allowed to continue as a nonconforming use, with limited new drilling activity (up to 30 wells) accommodated as an *interim use* for a proposed 15-year period, with no time limit specified as to the discontinuance of the nonconforming activity.
- At a Special Community Meeting held on June 20, 2018 to receive an update and review the status of the IOF Specific Plan Project and the related EIR, the City Council took action to place the 2017 IOF Specific Plan and EIR on hold and requested staff to proceed with an informational study that could outline options for addressing the potential amortization of oil-related activities and end-of-field life considerations within the City IOF. Considering community input, the objectives of the City Council, and in order to allow for a more comprehensive review of the full range of potential options, the City Council determined that an amortization or similar study would be helpful and informative as a first step to provide a professional, technical analysis from an economic perspective.
- At its May 28, 2019 meeting, the City Council authorized Baker & O'Brien to prepare a capital investment amortization study, based on income modeling, relating to the City IOF.

- On May 29, 2020, the City released the *Capital Investment Amortization Study for the City of Culver City Portion of the Inglewood Oil Field* prepared by Baker & O'Brien.
- On June 4, 2020, the City Council Oil Drilling Subcommittee (Vice-Mayor Fisch and Council Member Sahli-Wells) met to discuss and consider public input on the Amortization Study and potential amortization program and provided the recommendations included later in this Staff Report.

Summary of the Baker & O'Brien Amortization Study

Baker & O'Brien's Amortization Study evaluated the amortization of capital investment ("ACI") in oil and gas production facilities existing as of January 1, 2020 ("Effective Date") within the City IOF. The Effective Date represents the cut-off date for information used in the study as the basis for representing historical oil and gas operations and projections of future operations in the City IOF.

Sentinel Peak Resources ("SPR") acquired the City IOF in January 2017 when it purchased a portfolio of California oil and gas properties from Freeport McMoRan Oil and Gas ("FCX"). At the time of the acquisition, there were 41 wells located within the City IOF and supporting infrastructure. During 2017, 21 wells were in operation to produce oil and gas, 10 production wells were idle, and 10 wells were used for injection of water into the reservoir. These wells were drilled and completed between 1925 and 2002.

The Amortization Study used a standard financial analysis to determine the time required to achieve ACI. An income model was used to account for capital investment and variables that determine net income for facilities in the City IOF, which are organized into annual income statements. Financial metrics were calculated for each annual period to test for ACI. ACI occurs when cumulative income from an investment is sufficient to offset the initial capital investment and to provide a return on that investment to the owner.

The Amortization Study evaluated two scenarios of capital investment. In one scenario, the income model was used to determine the time required for ACI for SPR's capital acquisition of the City IOF (in 2017). SPR's capital investment in the City IOF was a small portion of the acquisition price that SPR paid in 2017 to acquire FCX's portfolio of California oil and gas production properties. Since there is no public allocation of the acquisition price that was attributable to the City IOF, the income model used a fair market value of \$4.65 million for the City IOF, which is an indicative value for an arm's-length exchange of the property between a willing buyer and a willing seller. The income model determined that ACI would occur within four years of SPR's purchase of the City IOF, during 2020.

In a second scenario, the income model was used to determine the time required for ACI for the original capital investment by prior operators in those individual wells drilled in the City IOF since 1977. The use of the income model was limited to wells drilled since 1977 because historical data was incomplete or not available to determine income or capital investment for wells drilled prior to 1977. This analysis confirms that ACI for individual wells is typically achieved within a few years, although there is significant variability among individual wells. For the six production wells drilled in the City IOF since 1977, four wells achieved ACI within five years, while two wells generated returns that fell short of the targets. When individual wells are considered together, these results show that high returns from performing wells offset poor returns from marginal wells. These findings confirm that it is appropriate to aggregate individual wells to determine the time required for ACI for facilities

within the City IOF. The results for original investment in individual wells also confirm that the time required to achieve ACI for SPR's acquisition of the property is reasonable.

For wells drilled prior to 1977, operating economics were evaluated for different periods to determine the time required to achieve ACI in those historical periods. When wells drilled during various historical periods are aggregated, wells drilled prior to 1977 have similar economics as the individual wells evaluated with the income model. Even though capital investment between 1925 and 1977 occurred during a range of market conditions, the economic performance of these wells indicates that wells drilled prior to 1977 achieved ACI within the first several years of operation and well before 2016.

Finally, a sensitivity analysis was conducted to test the impact of potential changes in key baseline assumptions utilized in the income model to determine the time required to achieve ACI for SPR's acquisition of the City IOF. Within reasonable ranges of baseline assumptions, the ACI has a modest sensitivity to changes in SPR's acquisition cost, but ACI has little sensitivity to changes in the crude oil quality discount or the industry return on capital.

Proprietary information about the oil and gas operations in the City IOF was not available from SPR for the Amortization Study. While such information would have been helpful, it is not necessary for development of the income model used in the study. If SPR records were available, they would have been used for validation purposes and possibly to extend the analysis to historical periods prior to the availability of public data for the City IOF. Further, the Amortization Study took into account that SPR has provided no plan to the City that proposes a program for the future development of oil and gas operations in the City IOF.

DISCUSSION

Amortization of Nonconforming Uses and its Application

The City IOF is a long standing nonconforming use. From a land use regulation perspective, amortization is a method that may be used to eliminate pre-existing, nonconforming uses, usually within a phased or time-certain schedule. Under this method, a reasonable amortization, or "phase-out," period is determined based on a variety of factors, including economic analysis concerning the time period for the original capital investment to be amortized.

The Amortization Study prepared by Baker & O'Brien performs such an analysis. The financial analysis developed for the Amortization Study provides valuable insight into the investment and cost recovery factors for the original capital investment in the City IOF. The Amortization Study presents information the City may consider when identifying a reasonable and appropriate amortization period for termination of oil and gas operations located within the City IOF. As discussed above, the Amortization Study evaluated two scenarios and concluded that the original capital investment in the City IOF between 1925 and 2002 was recovered years ago, and that during 2020, the acquisition capital investment by SPR may have reached or will soon reach the point where the capitalized investment has amortized.

Land Use and Compatibility Considerations

- **Nonconforming Use Status:** The City IOF has operated as a nonconforming use under City's land use regulations for decades. It is the only area within the City where nonconforming oil-related activities have been allowed to continue. A long succession of operators, including SPR, have acquired the City IOF, or portions of it, knowing that it constituted a nonconforming use and that, as such, it is potentially subject to being terminated by the City through an amortization process.
- **Oil and Gas Production is an Obsolete Use in an Urban Community:** When the City IOF was originally established a century ago, immediate surrounding areas consisted of undeveloped open space. Surrounding areas have since been established with populated urban uses. Industrial oil-related activities in the context of an urban environment are considered by many to be incompatible with the surrounding residential neighborhoods and other nearby traditional urban community uses. Further, implementation of various open space/recreational amenities within the northern portion of the IOF, including the Stoneview Nature Center, the Park-to-Playa Trail, the Pedestrian Bridge of La Cienega and the City Park, reinforce the transition of that northerly corridor as a key regional recreational resource. As such, there is much more human interface with the adjacent oil field. As the surrounding community has evolved in a typical urban fashion, the oil field use has become an obsolete use and its presence is out of character within the current urban context.
- **Long-Range Objectives for the Oil Field:** Until otherwise changed, oil-related activities remain an allowed nonconforming use, per CCMC Section 17.610.010.D, and may continue, subject to the requirements set forth in CCMC Chapter 11.12. City actions since 2013 indicate a shift in policy toward a desire to reevaluate long-range objectives for the oil field area. It is not the purpose of the Amortization Study or any potential future amortization program to identify or assign future replacement uses for the City IOF. At such time that oil-related uses are removed, the property is eligible for development with conforming uses in its place. The consideration of a potential amortization program provides the opportunity to remove uncertainty surrounding the potential timing affecting a transition of uses away from oil and gas production so that any assessment of possible alternative uses can be initiated at the appropriate time.

Safety Considerations

- **Outdated and Aged Equipment and Infrastructure:** The most recent well within the City IOF was drilled 18 years ago, and approximately 70% of the wells are at least 50 years old. At least five of the wells were drilled during the 1920's, several of which have been non-productive and sitting idle for decades. The age of these wells suggests the infrastructure within the City IOF is very old and much of it installed prior to the adoption of more environmentally protective standards. This aged and outdated infrastructure is vulnerable to failure and poses a threat to public safety and protection of the environment. In addition, the lack of any recent drilling combined with the high number of wells that remain idle (as many as 12 idle wells as of May 2020), suggest a significant lack of investment and focus on the City IOF wells in comparison to other areas of the IOF that have experienced more recent active drilling, workovers and plugging and abandonment of wells within the last decade. This lack of active investment could potentially result in an increased vulnerability to the public health, safety and welfare and protection of the environment, as outdated systems deteriorate and fail.

- **Community Desire to Better Regulate, Minimize or Eliminate Oil Uses:** The range of public input received by the City concerning the future of the City IOF has been broad and varied. However, a consistent message has been a request for the City to prioritize the public health, safety and welfare of the community and develop a strategy for end-of-life considerations for the City IOF.
- **Concern for Seismic Safety:** Two major faults, the Newport-Inglewood Fault Zone and the Overland Avenue/Charnock Faults, are located in the vicinity of the City IOF. Although it is common for oil drilling to occur in locations that may be heavily faulted, there is a public safety concern due to the proximity of the oil activity, the faults and the urban community. One concern is that ongoing oil production operations will destabilize subsurface ground pressures that could contribute toward initiation of a seismic event along fault lines in the vicinity. A second concern is that the aged oil field infrastructure is vulnerable to damage should a seismic event occur, which puts the surrounding communities at risk of upset of the outdated facilities.
- **Expanding Technical Evidence Highlights Public Health and Safety Concerns:** Access to continued and expanding technical knowledge of oil and gas production activities continue to highlight concern for the effects of these activities, particularly in urbanized areas, and the relationship to public health and safety, as well as potential environmental consequences.

Urbanized Oil Activities Considerations

- **Shift in Community Tolerance for Long-Term Incompatibility of Urbanized Oil Drilling:** When the IOF Specific Plan process started well over seven years ago, the intent was to establish provisions by which oil-related uses might continue as a nonconforming use, at least for some interim period of time. In the intervening period, concerns regarding urbanized oil drilling proximate to residential neighborhoods have intensified. As a consequence, in June 2018, the City Council requested that more information be gathered to evaluate what end-of-life considerations are available for the City IOF and to compile analysis and information that could inform decisions in this regard.
- **Shift in Local and State Agency Support for Urban Oil Activity:** Recent years point toward a shift in the way that local, regional and even State agencies manage and regulate urban oil activity within the southern California region. For example, California Department of Conservation's California Geologic Energy Management Division ("CalGEM") is exploring rulemaking options that could affect the future of urban drilling. Los Angeles County, the City of Los Angeles and several other local agencies are conducting evaluations of the appropriateness of oil and gas activity within those urban areas.
- **Shift in Public Tolerance and Economic Demand for Non-Sustainable Industrial Practices and Non-Renewable Energy:** Within California, there is a strong trend (including legislative and regulatory support) to shift away from fossil-fuels in support of cleaner, renewable energy sources. Given these influences, the demand for oil will likely diminish over time. In anticipation of reduced demand for oil, it seems reasonable to anticipate that continued or additional investment in the City IOF is questionable.

Operational Considerations

- **Trend of Diminished Oil Production and Poor Field Efficiency:** CalGEM records demonstrate that oil production within the City IOF has been on the decline. This observation is supported by Baker & O'Brien's Capital Investment Amortization Study, which notes:
 1. SPR's 2020 Annual Drilling Plan (for the IOF) indicates that oil production between 2017 and 2019 declined by 6%. (See page 8 of the Amortization Study.)
 2. 211 barrels per day of crude oil produced from wells in the City IOF represented about 3.8% of the total 5,520 barrels per day of crude oil produced from the entire IOF in 2017. Yet by comparison, the number of wells within the City IOF represents roughly 10% of the total number of wells throughout the entire IOF. (See page 10 of the Amortization Study.) In addition, as of February 13, 2020, SPR has reported that only 22 of the 430 production wells are located within the City IOF, roughly 5% of the total.
 3. CalGEM records demonstrate that production fluids produced from the remaining wells in the City IOF are comprised of more than 98% water, and only less than 2% is crude oil. The extremely high water cut of the extracted production fluids is an indication that these are no longer high performance wells. Wells that have high water production rates are less efficient, much more costly to operate and result in lower rates of economic return. Wells with poor efficiency and low rates of return are customarily placed in idle status. (See pages 10, 28 and 29 of the Amortization Study.)
- **Compliance with Current City Code:** Oil-related activities are allowed to continue in the City IOF as a nonconforming use, per CCMC Section 17.610.010.D, subject to permitting requirements and regulation as set forth in CCMC Chapter 11.12. Since SPR acquired and assumed operation of the IOF in January 2017, the City has sought to establish a cooperative relationship with SPR to facilitate information-sharing and monitor compliance. Compliance becomes even more compelling when the operation under review is already recognized as a nonconforming use. Breakdown in compliance and communication has potential to exacerbate risk to the public health, safety and welfare and result in reduced protection of the environment. In addition, non-compliance serves to further expose issues of incompatibility with surrounding land uses.

OIL DRILLING SUBCOMMITTEE RECOMMENDATION

At its June 4, 2020 meeting, the Subcommittee considered how the financial analysis, findings and conclusions presented in the Amortization Study could be used to inform future decisions related to the Culver City portion of the Inglewood Oil Field, including options for a potential amortization program of oil and gas operations within the City, and made the following recommendations to the City Council:

1. Receive and consider the information contained in the Capital Investment Amortization Study;
2. Direct staff to study other factors relating to amortization and to develop and return back to Council with a framework that: (1) resolves the incompatibility of the nonconforming

oil-related uses, such as through an amortization program; and (2) identifies an appropriate period to phase out oil and gas activity;

3. Authorize the Oil Drilling Subcommittee to work directly with staff to develop details of this framework and potential amortization program; and
4. Provide direction to the Oil Drilling Subcommittee and City staff, as deemed appropriate, on objectives to be considered for the framework and potential amortization program.

FISCAL ANALYSIS

There is no fiscal impact from the presentation and discussion of this matter. However, implementation of the City Council's recommendation(s) may result in the need to allocate budget and staff resources, for which staff will develop a proposal and cost estimate and, if needed, return to the City Council to receive budget approval.

ATTACHMENTS

1. 2020-08-13_ATT_Capital Investment Amortization Study

MOTION

That the City Council:

1. Receive a presentation of the *Capital Investment Amortization Study for the Culver City Portion of the Inglewood Oil Field* and discuss how to utilize information presented in the Study; and
2. Provide direction to City staff, as deemed appropriate, to study other factors relating to amortization and to develop and return to City Council with a framework that: (A) resolves the incompatibility of nonconforming oil-related uses, such as through an amortization program; and (B) identifies an appropriate period to phase out oil and gas activity; and
3. Authorize the Oil Drilling Subcommittee to work directly with City staff to develop details for an amortization program for future consideration by the City Council; and
4. Provide other direction to the Oil Drilling Subcommittee and City staff, as deemed appropriate, on objectives to be considered for such framework and potential amortization program.