Comparison of Proposed Culver City Drilling Regulations to Existing City Regulations and Approved County Community Standards District (CSD) and Settlement Agreement

Background and Context: Culver City's current oil drilling regulations (set forth in the Culver City Municipal Code [CCMC], Chapter 11.12, Oil, Gas and Hydrocarbons) were last updated in 2003 and regulate nonconforming oil and gas drilling activities within the entire City limits. In April 2013, Culver City released to the public the *Discussion Draft Oil Drilling Regulations for the Culver City Portion of the Inglewood Oil Field* (Discussion Draft Regulations), for public review and comment, to update and replace the City's current oil drilling regulations. The Discussion Draft Regulations focus on that northwesterly, 77.8-acre portion of the Inglewood Oil Field (IOF) that lies within the city limit of Culver City (or the City IOF). Overall, the IOF comprises approximately 1,000 acres that straddles both the City and the unincorporated area of Los County to the south the City IOF. The remainder of the IOF that lies within the unincorporated area of Los Angeles County is referred to as the County IOF.

In June 2014, the City Council of the City of Culver City adopted a resolution declaring its intention to initiate preparation of the Inglewood Oil Field Specific Plan (or City IOF Specific Plan) for the City IOF. The draft Specific Plan is based on the Discussion Draft Regulations, which were modified, in part, in response to comments. The proposed City IOF Specific Plan (if adopted) would regulate oil and gas drilling and associated activities only within the identified Specific Plan area boundaries (i.e. City IOF). If adopted, the City IOF Specific Plan and related Drilling Regulations would replace the City's existing 2003 oil-related regulations (CCMC Chapter 11.12) and establish the City IOF as the only area within the City where legal nonconforming oil-related activities may continue.

In October 2008, the Los Angeles County Board of Supervisors adopted the Baldwin Hills Community Standards District (CSD) establishing regulations for oil and gas production activities in the County IOF. A CSD is a supplemental district used by the County to address special issues that are unique to certain geographical areas within the unincorporated area of the County. Following the approval actions of the County Board of Supervisors, the City of Culver City and other parties joined together in a lawsuit challenging the environmental review of the CSD. In July 2011, a settlement of the litigation was reached, referred to as the Settlement Agreement, which provided for enhanced regulations to protect the public health and safety and the environment of the communities surrounding the IOF. Although the City of Culver City at one time considered developing cooperative regulations with the County, that did not occur, and the regulations set forth in the CSD and in the Settlement Agreement are only applicable to the County IOF, and do not apply to the City IOF.

Although the provisions of the City's Draft Drilling Regulations and Draft Specific Plan are unique to the circumstances of the City IOF, its surrounding community and desired level of City oversight, many of the reporting and monitoring requirements are nonetheless modeled, in part, from the County CSD regulations and Settlement Agreement.

<u>Comparison Table Key</u>: In order to assist with an understanding of the evolution of oil and gas drilling and production regulations within the IOF and to better illustrate the differences between the varied sets of regulation, a comparative assessment of Key Regulated Features is provided in the table below. The following is a key to assist with understanding and interpreting the information provided in the table:

10.5.17 Page 1 of 7

Column Description

- A ID No. Identification number provided as reference for locating each Key Regulated Feature within the table.
- **B**Key Regulated Feature. This heading and column entries refer to a particular aspect within at least one or more of the various regulation documents under comparison. Note that this is not an exhaustive list of all the key features within the proposed Culver City Drilling Regulations, nor is it limited to that features that may be more stringent than the County CSD. In addition, this is not a complete summary of all of the proposed Culver City regulations. Rather, the Key Regulated Features included in the table represent distinguishing factors within the proposed Drilling Regulations and points of interest raised through the public process.
- Culver City Draft Drilling Regulations. This column includes a summary overview of the key regulated features as they appear in the September 15, 2017 version of the Draft Drilling Regulations, which are included as Appendix C to the City IOF Specific Plan (Public Hearing Draft). Following most description summaries is a reference (in parenthesis) to the relevant Draft Drilling Regulations section number.
- **Existing Culver City Oil & Drilling Regulations**. This column includes a summary overview of the key regulated features as provided in Chapter 11.12 of the CCMC. Comparatively, the existing City regulations are limited in scope and non-specific about regulation of many key features/aspects of oil-related activities. This is evidenced by the frequent reference to "not addressed" under the summary description.
- E Los Angeles County Baldwin Hills Community Standards District (CSD). This column includes a summary overview of the adopted 2008 County CSD.
- **F** County CSD Settlement Agreement (2011). This column includes a summary overview of the terms under the accepted July 2011 Settlement Agreement.

Additional Notes:

Not Addressed –

When a particular issue or feature is not specifically regulated or identified as allowed or prohibited within a set of regulations, it is noted as "not addressed." While an agency may have other policies in place that might ultimately affect the regulation or oversight of that feature, for comparative purposes, it is simply noted as an area of oil-related uses/activities that is not specifically covered under those regulations.

Gray Text -

The description for some Key Regulated Features is shown in gray text under Column E (Los Angeles County Baldwin Hills Community Standards District). As discussed above, the Settlement Agreement established supplemental or modified provisions for some regulated features of the County CSD. For most regulated features that were affected by the Settlement Agreement, the Settlement Agreement provisions are additive (i.e., supplemental) to the CSD regulations. However, for several of the key regulated features, the Settlement Agreement sets forth a modified provision, often stricter than the original CSD regulation. When a Settlement Agreement provision establishes a regulation that differs, and otherwise changes rather than supplements, the CSD regulations, the relevant CSD description in Column E is shown in gray text to indicate that this regulation of this feature should defer to the Settlement Agreement provision summarized in Column F.

10.5.17 Page 2 of 7

A	В	С	D	E	F
ID No	Key Regulated Feature	Culver City Draft Drilling Regulations (from the City IOF Specific	Existing Culver City Oil & Drilling Regulations (Culver City Municipal Code	Los Angeles County Baldwin Hills Community Standards District (CSD)	County CSD Settlement Agreement (2011) (July 2011 Settlement Agreement provisions are
		Plan, Public Hearing Draft, dated September 15, 2017)	Chapter 11.12, last updated 2003)	(County IOF CSD regulations, adopted 2008)	additive to the 2008 CSD requirements)
1	Oil Drilling Permitting Steps	(1) Specific Plan; (2) Comprehensive Drilling Plan; (3) Annual Consolidation and Drilling Plan; (4) Drilling Use Permit; and (5) Monitoring and Reporting (Section 4)	(1) Oil Drilling Application; and (2) Oil Drilling Permit	(1) Oil Field Drilling Application; (2) CSD; (3) Annual Drilling Plan; and (4) Monitoring and Reporting	Not addressed
2	Maximum Number of (New) Wells	30 wells over a 15-year drilling period (through 2032) (Section 4); 2 to 3 wells per year (Section 31.B.1)	1 well per each 5 acres of oil-producing zone (no specified maximum)	600 wells over 20 years; 45 wells per year	500 new wells through 2028; 30 to 35 wells per year
3	Comparative Density of Wells (Note: well density is not specifically a regulated feature except under the existing City regulation. Representative well density is provided here for informational purposes.)	Approximately 1 well per every 2.6 acres (not specifically regulated)	1 well per each 5 acres of oil-producing zone	Approximately 1 well per every 1.5 acres (not specifically regulated)	Approximately 1 well per every 1.8 acres (not specifically regulated)
4	Bonus Wells	Not addressed (no bonus well provision)	Not addressed (no bonus well provision)	No bonus for well abandonment	For each well abandoned within 800 feet of Developed Area, allows drilling of 2 new additional wells outside of the 800-foot zone

10.5.17 Page 3 of 7

A	В	С	D	E	F
ID No	Key Regulated Feature	Culver City Draft Drilling Regulations	Existing Culver City Oil & Drilling Regulations	Los Angeles County Baldwin Hills Community Standards District (CSD)	County CSD Settlement Agreement (2011) (July 2011 Settlement
		(from the City IOF Specific Plan, Public Hearing Draft, dated September 15, 2017)	(Culver City Municipal Code Chapter 11.12, last updated 2003)	(County IOF CSD regulations, adopted 2008)	Agreement provisions are additive to the 2008 CSD requirements)
5	Setbacks	400 feet from Developed Area for new wells or redrilled wells; 75 feet from public roadways for new wells or redrilled wells; 500 feet from Developed Area and 200 feet from public roadways for tanks; exceptions to setbacks allowed subject to special review (Section 21.J)	300 feet from school/places of public assembly or major public street/sidewalk; 100 feet from the outer boundary of the parcel on which well is situated; tanks setback from property line 8 to 120 feet, depending on tank size	400 feet from developed areas for new or redrilled wells; 20 feet from public roadways for new or redrilled wells; 500 feet from any developed area for any new or replacement tank, and 200 feet from public roadways.	No change from CSD
6	Drilling Plan Supplements to Annual Drilling Plan	Supplement required for all Deep-Zone or Mid-Zone wells where Top Hole is within 800 feet of Sensitive Developed Area (broad definition of Mid-Zone based on depth, not specific geological zones) (Section 31.C)	Not addressed	Not addressed	Supplement required for Deep-Zone or Mid-Zone where Top Hole is closer than 800 feet of Sensitive Developed Area. (definition of Mid-Zone specifically limited to certain geographical zones)
7	Tanks	Limited to 5,000 barrels capacity per single tank; total maximum tank storage within oil field not to exceed 6 tanks or 24,000 barrels capacity (Section 15)	Limited to 6,000 barrels storage per each producing well	New tanks with capacity greater than 5,000 barrels allowed with approved CUP	Not addressed
8	Boilers	Not addressed	Steam boilers allowed	Not addressed	Not addressed
9	Sumps and Reservoirs (for Oil Storage)	Not allowed (Section 13)	Allowed subject to specific provisions	Sumps allowed subject to provisions	Not addressed

10.5.17 Page 4 of 7

A	В	С	D	E	F
ID No	Key Regulated Feature	Culver City Draft Drilling Regulations (from the City IOF Specific	Existing Culver City Oil & Drilling Regulations	Los Angeles County Baldwin Hills Community Standards District (CSD)	County CSD Settlement Agreement (2011) (July 2011 Settlement
		Plan, Public Hearing Draft, dated September 15, 2017)	(Culver City Municipal Code Chapter 11.12, last updated 2003)	(County IOF CSD regulations, adopted 2008)	Agreement provisions are additive to the 2008 CSD requirements)
10	Major Facilities	Not allowed (Section 14)	Not addressed	Connect to existing gas plant; some major facilities, such as steam drive plants, allowed; processing facilities allowed within closed systems and subject to limitations	Not addressed
11	Refineries, Tank Farms and Absorption Plants	Not allowed (Section 14)	Not allowed	Refining not allowed	Not addressed
12	New Technology and Clean Technology Assessment	Promptly implement new proven reasonable and feasible technologies that reduce environmental impacts to surrounding uses and the environment; annual Clean Technology Assessment required (Sections 11.B, 21.I and 31.B))	Not addressed	Use proven technological advances if they would further reduce environmental impacts to adjacent land uses	Identify availability and feasibility of new technology in Annual Plan, including feasibility of use of natural gas-powered drill rigs
13	Threshold to investigate release of Hydrogen Sulfide (H2S)	1 part per million (Section 21.C)	Not addressed	5 parts per million	Not addressed
14	Air Grab Samples	City may take air grab samples in response to gas release or complaints of odors. Operator responsible for costs (Section 21.C)	Not addressed	Not addressed	Not addressed
15	Fire Training and Equipment	Fire training required; oil operator required to pay for costs and expenses of training, drills, inspections and audits (Sections 9 and 12)	Field personal should know how to operate pumper apparatus and extinguishers	Emergency Response Plan required; fire inspection audits	Not addressed

10.5.17 Page 5 of 7

A	В	C	D	E	F
ID No	Key Regulated Feature	Culver City Draft Drilling Regulations	Existing Culver City Oil & Drilling Regulations	Los Angeles County Baldwin Hills Community Standards District (CSD)	County CSD Settlement Agreement (2011) (July 2011 Settlement
		(from the City IOF Specific Plan, Public Hearing Draft, dated September 15, 2017)	(Culver City Municipal Code Chapter 11.12, last updated 2003)	(County IOF CSD regulations, adopted 2008)	Agreement provisions are additive to the 2008 CSD requirements)
	Noise shall not exceed baseline levels	By more than 5 dBA during daytime hours (not limited to locations near Developed Areas) (Section 22.A)	Not addressed (subject to City Noise Ordinance)	By more than 5 dBA at any developed area	By more than 5 dBA at any developed area
17	Limit night-time noise	No more than 3 dBA above a one-hour baseline average at sensitive receptor (10 pm to 7 am) (Section 22.A)	Not addressed (subject to City Noise Ordinance)	Minimum nighttime equivalent level (7 pm to 7am)	No more than 3 dBA above one-hour baseline average at developed area (10 pm to 7 am)
18	Site-Specific Geotechnical Investigation	Required for grading in excess of 1,000 cubic yards and for permanent structures (Section 24.B)	Not addressed	Required for grading in excess of 5,000 cubic yards and permanent structures	Not addressed
19	Directional Surveys on Certain Wells	Survey required for wells where Top Hole or Bottom Hole is within 400 feet of an exterior boundary line of City-owned property (Section 42)	Survey required within 500 feet of any City-owned property	Not addressed	Requires a study of the technical feasibility and commercial reasonability of slant drilling
20	Well Stimulation Treatments, specifically Hydraulic Fracturing	Subject to City Council decision/direction (Section 32)	Not addressed	Not addressed	Study feasibility and potential impacts (groundwater and subsidence impacts) of fracturing operations
21	Limitation on Number of Drilling or Redrilling Rigs	No more than one (1) drilling or redrilling rig at any one time; and no more than two (2) reworking, maintenance and/or abandonment rigs in place at any one time (Sections 31.B and 33.A)	Not addressed	No more than three (3) drilling or redrilling rigs at any one time; and no more than eight (8) reworking rigs at one time	No more than two (2) drilling or redrilling rigs at any one time; no change to number of reworking rigs

10.5.17 Page 6 of 7

A	В	С	D	E	F
ID No	Key Regulated Feature	Culver City Draft Drilling Regulations	Existing Culver City Oil & Drilling Regulations	Los Angeles County Baldwin Hills Community Standards District (CSD)	County CSD Settlement Agreement (2011) (July 2011 Settlement
		(from the City IOF Specific Plan, Public Hearing Draft, dated September 15, 2017)	(Culver City Municipal Code Chapter 11.12, last updated 2003)	(County IOF CSD regulations, adopted 2008)	Agreement provisions are additive to the 2008 CSD requirements)
22	Landscaping	Need approved landscaping plan to visually screen oil operations and improve appearance of oil field and ensure compatibility of oil field with surrounding area; Annual review required; schedule determined with submittal of plan (Section 37)	Not addressed	Landscaping completed in phases over a two-to five-year period per pre-approved landscape plan	Complete installation of first two phases within nine months of approval Complete final phase of Plans within three years, in accordance with preapproved landscape plan
23	Visual Screening	Visual screening of oil field operations (and specifically tanks and oil-related equipment) from residential, recreational and institutional land uses and from adjacent public streets (Section 31 and 37)	Wells and equipment fully screened from adjacent private and/or public properties	Comply with screening/landscaping protocols (per the approved landscape plan) for areas near the outer boundary and along public streets that run through the oil field.	Not addressed
24	Well or Oil Field Amortization or Abandonment	Subject to City Council decision/direction (Section 57)	Not addressed	Well amortization and abandonment schedule required (based on useful economic life) for wells within the setback areas	County review of oil field closure triggered when production levels dip below specified threshold

10.5.17 Page 7 of 7