

## Jordan, Sherry

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**From:** Andrew Lynch <gandrewlynch@icloud.com>  
**Sent:** Friday, June 21, 2013 10:04 PM  
**To:** Jordan, Sherry  
**Subject:** Cracking regulations

Please incorporate Dr Williams' comments in the regulations that will govern oil extraction in the Culver Coty area. Fracking should not be an option until a full assessment can be completed.

Thank you.

Andrew Lynch and family

Sent from my iPhone

## Jordan, Sherry

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**From:** Dr Suzanne De Benedittis <makeccsafe@gmail.com>  
**Sent:** Friday, June 21, 2013 6:32 PM  
**To:** Jordan, Sherry  
**Subject:** CC Oil Field Regulations feedback/correct attachment  
**Attachments:** OFS--Culver City O&G revision 6-21-13 comments.doc

Oops! Am embarrassed, Sherry.

I was in such a hurry to get my feedback in before 5PM that I sent the wrong attachment. Here is the correct one. (Please destroy the other. They were some notes to myself.)

And thank you once again for all your efforts on our behalf!

Suzanne De Benedittis

----- Forwarded message -----

**From:** **Dr Suzanne De Benedittis** <[makeccsafe@gmail.com](mailto:makeccsafe@gmail.com)>  
**Date:** Fri, Jun 21, 2013 at 4:57 PM  
**Subject:** CC Oil Field Regulations feedback  
**To:** Sherry Jordan <[sherry.jordan@culvercity.org](mailto:sherry.jordan@culvercity.org)>

Thank you for all your benefits on our behalf!

To: City of Culver City Council & pertinent parties  
Re: Municipal Oil & Gas code revisions

Thank you for both the December 14<sup>th</sup> 2012 and the recent June 6<sup>th</sup> 2013 hearings.  
I appreciate your respect for our citizens and for the thoughtful research presented at these meetings.

To follow up on what I said that evening:

**Let's avoid costly mistakes and uphold California law by demanding a full EIR as a requisite procedure when permits are sought to assess feasibility of issuing them.**

Until full CEQA procedures are followed, specifically that an EIR be done on the land for which PXP/Freeport McMoran seeks drilling permits from Culver City, essential parts of the regulations would be essentially meaningless and a denial of your fiduciary duty to the Public.

1. As you know, the land in question has never been fully studied to assess if it can sustain the # of wells proposed and type of drilling intended. I trust that you & our legal representatives will avoid repeating earlier City Council's mistakes. See

<http://www.stanford.edu/~meehan/class/mitjan2000/davis.htm>

If I recall it cost us [the State's taxpayers], with the help of then Senator Kevin Murray, \$40,000,000.00 to buy back that unstable land (now the Scenic Overlook) in Culver City. This land was not even fit for housing. How can this fact be passed over re unconventional oil extraction procedures?

2. From the videos you saw June 6<sup>th</sup>, InSAR is showing instability in this contiguous oil field.

3. As you may know, USC has an "Induced Seismicity Consortium."

From what USC Professor Fred Aminzadeh admitted at the California Science Center Panel on June 8<sup>th</sup>, (a) seismic activity does impact shear strength; (b) induced seismicity (fractures under 3 Richter) does not of itself cause an earthquake; however, many of these can trigger an earthquake, thus should be prohibited. Let us not be the disaster from which the rest of the nation learns!

4. Given that three active earthquake lines traverse Culver City and the Inglewood oil field, it behooves us to honor the adage to "measure nine times, before cutting once." It would be a sad day in court to have its own citizenry suing the City for not making our safety primary, or worse yet to have a terrible tragedy befall us all, either because of premature decision making or lawmakers' fear of industry lawsuits. Let's avoid mistakes that could cost lives and hundreds of millions of dollars in damages.

**Together let's uphold California law by making it a preliminary requisite for obtaining permits in the updated Oil & Gas Ordinance that there be a full EIR done on the land by independents (such as Richard Meehan or David Hamilton) approved by the City and paid for by those requesting the permit; and that the resultant findings will indicate whether permits can be issued.**

I would like to thank you all, including Greenberg Lusker and the Aspen Group for standing in truth in 2010. With Judge Chalfant's ruling in favor of Culver City making its people's health and safety the priority, our City has the legal precedent to continue to do so.

May we all continue to cooperate for the Greater Good!

Respectfully,

Suzanne De Benedittis

June 21, 2013

**Let's avoid costly mistakes and uphold California law by demanding a full EIR.**

## Jordan, Sherry

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**From:** razzip1@ca.rr.com  
**Sent:** Friday, June 21, 2013 4:58 PM  
**To:** Jordan, Sherry  
**Subject:** Draft Discussion Oil Comments  
**Attachments:** CommentsDDraftOilRegs.docx

Sherry,

Comments To D\_Draft Oil Regs.

Paul Ferrazzi

**Paul V. Ferrazzi**

**Culver City Resident**

**CCSC**

**Comments to Discussion Draft Oil Drilling Regulations**

- i. The “Project” as described by Aspen Environmental Consultant, Sandra Alarcon Lopez, is being defined as a Regulatory Scheme instead of the Further Development and Expansion of the Inglewood Oil Field, specifically the 100 acres of surface area and not inclusive of the reserve area discovered using sonar geologic survey equipment in 2003 by Plains Exploration & Production, Inc., under residential and commercial Culver City.**

Is this an accurate description of the project? In this case, the project is being proposed as “Draft Drilling Regulations”, which the City describes as “a set of regulations.” The purpose of the “Draft Drilling Regulations” is to attempt to reduce the environmental impacts of future expansion and development at the Inglewood Oil Field through the establishment of permanent development standards, operating requirements and procedures.

A typical EIR evaluates the environmental impact of the proposed project. In this case the “Draft Drilling Regulations” by themselves will not result in any physical change of the environment.

The correctly defined project is actually the continuation and expansion of the Inglewood Oil Field into the reserve area under Culver City from the surface area. The potential business plan of the oil field operator, PXP now FCX, was described in the Los Angeles County EIR for the Baldwin Hills Community Standards District allows the project applicant to drill 53 wells a year, with the total number of 100 projected to be drilled in Culver City by 2028.

New well drilling operations would occur 24 hours a day, and take anywhere from seven to thirty days to complete. Wells could be drilled up to 10,000 feet deep.

In fact documents from PXP to David E. Cranston, attorney with Greenberg Glusker, dated November 9, 2005 “ City of Culver City-Subsurface Easement” described an unrealized unpermitted drilling project plan. It acknowledged the over 700 seven year subsurface mineral leases it had acquired from Culver City property owners. A Drilling Plan well path map (illegible in the copy provided in the letter from PXP) indicated the development project drilling would be started from a single well pad located in the Machado lease within the 100 acres of surface area of the oil field in Culver City into the residential subsurface area of Culver City. This lease area runs from the surface area of the oilfield under Ballona Creek along Jackson Avenue to Culver Boulevard and Duquesne Avenue under residential and commercial properties. There has never been directional well drilling done by the oil operator in the Machado Lease Pool before nor has horizontal high volume hydraulic fracturing, acidizing or other stimulation methods been used in this lease area.

The area of Culver City has been identified as a liquefaction zone.

The surface area of the oil field is zoned as Industrial the subsurface area of the Machado Lease includes Low Density Residential Multiple, Medium Density Residential Multiple and Commercial General, should a risk filled highly industrial process be permitted under residential homes and commercial businesses and Culver City’s infrastructure simply because it originates in the properly zoned surface area of Culver City?

Permits were issued by both the Division of Oil, Gas & Geothermal Resources and the City of Culver City in 2005 and again a very similar unrealized drilling plan in 2009 permitted by just DOGGR, (as the city had imposed a moratorium on new drilling) this project plan included the description of six new wells to be drilled from a single well pad in the Machado lease, four under Ballona Creek, (now recognized as a navigable waterway of the United States and under the aegis of the Army Corp of Engineers) into residential neighborhoods and two other wells very close to the banks of the creek at depths reaching 10,000 feet. This development project is described in internal PXP

documents as the Northwest Extension Deep Drilling Plan, this is the “Project” that should be being considered under CEQA by the City of Culver City.

CEQA undeniably permits and often requires EIRs for the analysis of new land use regulations. In fact, the definition of Project within the CEQA Guidelines specifically states that a “project” includes “enactment and amendment of zoning ordinances, and the adoption amendment of local General Plans or Elements thereof...” (CEQA Guidelines 15378.)<sup>1</sup> Thus, in some instances it is entirely appropriate to prepare an EIR on a zoning ordinance, specific plan or regulation. *See e.g., Stanislaus Natural Heritage Project v. County of Stanislaus*, 48 Cal. App. 4th 182, 202 (1996) (general plan amendment); *Rio Vista Farm Bureau Center v. County of Solano*, 5 Cal. App. 4th 351 (1992) (hazardous waste management plan); *City of Carmel-By-The-Sea v. Bd. of Supervisors*, 183 Cal. App. 3d 229 (1986) (rezoning); *Christward Ministry v. Superior Court*, 184 Cal. App. 3d 180 (1986) (general plan amendment).

However, when the zoning or other regulation could also encompass a development project, the “Project” analyzed by the EIR must be the development project, not the regulation. This is explicitly stated in the CEQA Guidelines:

Where the lead agency could describe the project as either the adoption of a particular regulation under subdivision (a)(1) or as a development proposal which will be subject to several governmental approvals under subdivisions (a)(2) or (a)(3), **the lead agency shall describe the project as the development proposal for the purpose of environmental analysis.** This approach will implement the lead agency principle as described in Article 4.

Guidelines § 15378(d) (emphasis added).

Simply put, if a general plan amendment, zoning ordinance or regulation for residential or commercial development, consists of numerous unrelated projects, with

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<sup>1</sup> The CEQA Guidelines are located at California Code of Regulation, Title 14, 15000 et. seq.. The Guidelines are binding on all public agencies. “At a minimum, however, courts should afford great weight to the Guidelines except when a provision is clearly unauthorized or erroneous under CEQA.” (*Laurel Heights Improvement Association v. The Regents of the University Of California* (1988) 47 Cal. 3d 376, 391 n.2.)



numerous unrelated project application and numerous different projects, then it is appropriate for the “Project” to be described as the regulation. *See, e.g., Rio Vista Farm Bureau, supra*, 5 Cal. App. 4th 351 (1992) (approving of regulations for siting hazardous waste facilities). But, if the specific plan or zoning ordinance is the first step of a development project, then the “project” must be described as the development project, not the regulation. *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo*, 172 Cal. App. 3d 151, 165 (1985); *See also, City of Carmel-By-The-Sea v. Bd. of Supervisors, supra*, 183 Cal. App. 3d at 242 & 244 (zoning change should analyze the development project).

In this case, oil drilling at the Inglewood Oil Field is conducted exclusively by PXP. The Drilling Regulations are designed to facilitate the future development of the oil field. The development of the oil field is subject to numerous governmental approvals, including, but not limited to, the approval of permits for different oil wells, pipelines, drilling plans, injection wells, drill pads, etc.... It is a very large development project, spanning over 17 years. As specified in Section 15378(d), the expansion of drilling at the Inglewood oil field is the proper project for environmental analysis under CEQA. The failure to properly identify the Project as the further expansion of drilling operations by PXP, will have a profound impact on the EIR Culver City undertakes and would constituted an abuse of discretion under CEQA.

This is not to say that the oil regulations cannot ultimately be the mitigation for the expansion of the drilling at the Inglewood Oil Field. Regulations are often a viable method for reducing and mitigating the impacts of a project. (See e.g., Guidelines § 15130(b)(5)(c).) However, the mitigation for the project just cannot be a substitute for the Project. The failure to properly describe the project as the expansion of the oil field over the next 15 years, constitutes an abuse of discretion.

**ii. Failure to Accurately Describe the Project as the Future Drilling of Over 100 Wells, Will Improperly Skew Public Comments and the Analysis of Alternatives.**

The importance of accurately describing the “project” has been thoroughly discussed in the case law. “The defined project and not some different project must be an EIR's bona fide subject.” *County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d 185, 200 (1977). An accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity. *McQueen v. Bd. of Dirs.*, 202 Cal. App. 3d 1136, 1143 (1988) (disapproved on other grounds in *Western States Petroleum Ass'n v. Superior Court*, 9 Cal. 4th 559 (1995).)

A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.

*County of Inyo*, 71 Cal. App. 3d at 193.

Improperly identifying the “Drilling Regulations” as the “project” will have a dramatic effect on the discussion of the project and alternatives. Instead of analyzing whether the City should permit further drilling of 50-100 oil wells in a densely populated urban environment, and how to mitigate the environmental impacts of such operations, the EIR and the public will be sidetracked off of what would be the best manner to regulate the increase in drilling and the types of drilling that should be allowed. The EIR cannot ignore the fundamental question of whether any additional oil well drilling should be permitted at all.

## Jordan, Sherry

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**From:** Dr Suzanne De Benedittis <makeccsafe@gmail.com>  
**Sent:** Friday, June 21, 2013 4:57 PM  
**To:** Jordan, Sherry  
**Subject:** CC Oil Field Regulations feedback  
**Attachments:** OFS--6-21-13 O&G Comments to Culver City .doc

Thank you for all your benefits on our behalf!

## OFS—Faith Communities Strategic Plan

1. Connect w Stella – explain, enroll & pray
2. Prep draft of mtg w HUMC Pastor
  - ⤴ Expected HM/AB1323 to pass; it did not – need to
  - ⤴ Call on MRT to carry out fiduciary duty
    - Science is now showing seismic--> earthquakes – therefore need to prohibit fracking (etc) in this field
    - Re Wells: independents need to check to assure that all abandoned wells have been properly plugged +
    - Sufficient funds to properly abandon all the other wells needs to be put in an escrow account by PXP/Freeport McMoran NOW.
    - As new wells are drilled, the funds required to plug them when depleted need to be put into the escrow fund also.
    - To assure sufficient funding, every 5 years, if the interest on the account is not sufficient to cover inflation PXP needs to add sufficient funds to maintain proper abandonment
3. Enroll Bill Wynn & Gene Rothman, Sr Karen & Stella to set up mtg w HUMC Pastor to enroll him & work together to design the plan to get all the 60 churches he is in contact with + all of our contacts on board to visit
  - ⤴ Perhaps we should list Churches & congregations & then visit MRT to assess if he will cooperate. . . . .
  - ⤴ Or enroll first, then go see him/

## Jordan, Sherry

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**From:** michelle weiner <michmobile2011@gmail.com>  
**Sent:** Friday, June 21, 2013 3:59 PM  
**To:** Rebecca Rona Tuttle; Jordan, Sherry  
**Cc:** FrackFreeCulverCity GoogleGroup; Lauren Steiner  
**Subject:** RE: [FFCC] Additional comment re. Culver City O&G Ordinance

I sent anail Ms Jordan endorsing Tom's doc with Stephen's addition. Grateful for you for putting it together.  
Michelle

Sent from my Windows Phone

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**From:** [Rebecca Rona Tuttle](#)  
**Sent:** 6/21/2013 2:46 PM  
**To:** [sherry.jordan@culvercity.org](mailto:sherry.jordan@culvercity.org)  
**Cc:** [FrackFreeCulverCity GoogleGroup](#); [Lauren Steiner](#)  
**Subject:** [FFCC] Additional comment re. Culver City O&G Ordinance

Dear Ms. Jordan:

As I explained when I appeared before you, the city attorney and others during a recent hearing, a significant factor inherent in oil and gas extraction, especially if this is increased, is greater wear and tear on the roads used by vehicles involved in these extraction processes. In the experience of other municipalities, the cost of additional maintenance has been staggering.

Therefore I recommend that the operator be mandated to reimburse the city for any road repair and associated costs above what would otherwise be expected. These figures no doubt can be ascertained by inspecting your records and taking into consideration any inflation.

Rebecca Rona

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**From:** [rebecca.rona@hotmail.com](mailto:rebecca.rona@hotmail.com)  
**To:** [sherry.jordan@culvercity.org](mailto:sherry.jordan@culvercity.org)  
**CC:** [stephen@sunstruction.com](mailto:stephen@sunstruction.com); [frackfrecc@googlegroups.com](mailto:frackfrecc@googlegroups.com); [laurensteiner57@gmail.com](mailto:laurensteiner57@gmail.com); [susan.heitman@ca.rr.com](mailto:susan.heitman@ca.rr.com)  
**Subject:** Comments re. Culver City O&G Ordinance  
**Date:** Fri, 21 Jun 2013 14:12:58 -0700

Dear Ms. Jordan:

My comments are in support of both Tom Williams's recommendations and Stephan Murray's recommendations. Clearly both individuals are highly knowledgeable regarding gas and oil extraction methods, health and safety, and reporting methods.

Ideally there would be no oil or gas extraction in any form in the Inglewood Oil Field. Clearly any form of oil or

gas extraction activity there is unsafe. However, if the city is intent on allowing extraction in some form, my suggestions follow.

I have attached Stephen Murray's comments here to ensure you realize which comments I am referencing.

In addition to Stephen and Tom's recommendations:

1. It is essential that there be an EIR that takes into consideration both the final Culver City ordinance and the oil company's proposed plans.

2. In slight contrast to Stephen's recommended definitions, I suggest avoiding the term "fracking" and instead using "land fracturing" to indicate what is fractured rather than the method by which the fracturing occurs, since there are a number of different processes by which this could take place. I would revise Stephen's definition as follows:

Land fracturing (or "fracturing") shall be understood to include "induced hydraulic fracturing," "hydrofracturing," "slickwater fracturing," "high volume gravel packing," any other similar terms and any methods that could be developed in the future, and shall include any high-pressure well stimulation methods, including but not limited to hydraulic, vapor, steam, or gaseous fracturing, acidization, and other high pressure stimulation methods related to the exploration for, or extraction and production of, fossil fuels. The term shall also refer to all processes and activities, including "horizontal" or "directional" drilling, related to the exploration for, or extraction and production of, fossil fuels.

3. Since oil and gas operations are clearly the greatest safety challenge faced by Culver City, it is essential to either create a section on the Culver City website devoted to fracturing that includes all the reports recommended by Stephen and Tom OR create a stand-alone website for this purpose. If the city website is employed, there should be a button on the homepage, making it obvious to website visitors how to easily access information. Regardless of whether the city website or a stand-alone website is employed, the city should make a point of reminding residents of the existence of this information by placing ads in the Culver City print and online publications on a quarterly basis.

4. Stephen has recommended that all residents who have sold their mineral rights be held financially accountable in some fashion. I disagree with this because these individuals were most likely unaware at the time of sale of the hazards of oil field operations. Instead, all who sell their mineral rights going forward, commencing with initiation of the new ordinance, shall bear these expenses. Anyone about to sell mineral rights shall as noted in the ordinance be forewarned about his or her potential liability.

Thank you for taking these recommendations into consideration.

Sincerely,

Rebecca Rona-Tuttle  
11659 McDonald St.  
Culver City, CA 90230  
(310) 486-4630

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You received this message because you are subscribed to the Google Groups "FrackFreeCC" group.

To unsubscribe from this group and stop receiving emails from it, send an email to

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To post to this group, send email to [frackfrecc@googlegroups.com](mailto:frackfrecc@googlegroups.com).

To view this discussion on the web visit <https://groups.google.com/d/msgid/frackfrecc/BAY165-W7DC912608A9A846F72415828F0%40phx.gbl>.

For more options, visit [https://groups.google.com/groups/opt\\_out](https://groups.google.com/groups/opt_out).

## Jordan, Sherry

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**From:** Forbes, Amy R. <AForbes@gibsondunn.com>  
**Sent:** Friday, June 21, 2013 3:56 PM  
**To:** Jordan, Sherry  
**Cc:** Rusch, Steve; Martini, John (JMartini@pxp.com); Salway, Candace (CSalway@pxp.com); Maynard, Gregg (GMaynard@pxp.com); Burke, Stephen (sburke@pxp.com); Dintzer, Jeffrey D.  
**Subject:** Freeport McMoRan Oil & Gas/Comments on Discussion Draft Oil Drilling Regulations  
**Attachments:** 101540308\_3.pdf; Forbes June 21 2013 Letter to Sherry Jordan.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Ms. Jordan, Attached please find the comments submitted on behalf of Freeport McMoRan Oil & Gas. I am also having hard copies sent by hand delivery this afternoon. Many thanks, Amy

Amy R. Forbes

### GIBSON DUNN

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333 South Grand Avenue, Los Angeles, CA 90071-3197  
Tel +1 213.229.7151 • Fax +1 213.229.6151  
AForbes@gibsondunn.com • www.gibsondunn.com

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**Jordan, Sherry**

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**From:** Tom Williams <ctwilliams2012@yahoo.com>  
**Sent:** Friday, June 21, 2013 2:49 PM  
**To:** Jordan, Sherry; Baker, Heather; Schwab, Carol  
**Cc:** Meghan Sahli Wells  
**Subject:** Comments on Discussion Draft Regulations  
**Attachments:** 062113CCPetRegsDiscDft Comts TW.doc

*See Attached for comments*

*Dr. Tom Williams  
4117 Barrett Road  
LA, CA 90032*

**DATE:** June 21, 2013

**TO:** Sherry Jordan, "Project Manager", Planning Division, City of Culver City  
**CC:** Meghan Sahli Wells  
Heather Baker  
Carol Schwab

**FROM:** Dr. Tom Williams, Sierra Club, Angeles Chapter, Cal-Nev Fracking Task Force

**SUBJECT:** Oil and Gas Ordinances and Specific Plan for Culver City Petroleum Management

**RE:** Comments on Discussion Draft Regulations

We have reviewed the voluminous and poorly organized "Discussion Draft" of "substantive regulations"; basic comment is "start-over" and we offer the following comments and attempted (we finally gave up) redraft of the discussion draft regulations below. Even though the City's regulations attempts to model those of the County, the County's regulations/ordinance suffer from the same issues and cover a very different setting compare to the conditions of the City.

We support general plan amendment for ALL petroleum development management within the City rather than preparation and processing of a SPECIFIC PLAN and a complete and thorough revision of the "substantive regulations" (=Discussion Draft) as circulated.

Some of the important comments/needs/additions required include:

- Clear statement of the City's rights and responsibilities for protection of the public health, occupational/public safety, natural resources, and environmental quality in regard to all petroleum related activities, facilities, and operations;
- Clear definition of relationship of existing regulations and those proposed as amended;
- Revise all definitions and add many others;
- Clear assignment of responsibilities for risks and impacts to BOTH Operators and Leasers/Owners of subsurface properties;
- Application of all surface-based requirements, liabilities, conditions, and assessments as comparable requirements for subsurface properties - including property taxes;
- Application to all fields/wells for the entire City, not just Machado or Specific Plan areas, or existing facilities;
- Clear and concise forms, process, and schedules for applicants to follow to submit the Plan, Programs, and Permits;
- Readily accessible, public notification system for all activities related to petroleum resources and include a Public Advisory Committee;
- Concept of Tiered relationships between the Comprehensive Plan, Annual Programs, and Permits is very good but they are not connected/tiered to each other;
- Require incorporation of all scattered "Plans", here below "Elements", with assignment to current Programs, not the Plan, and Elements to be exercised as conditions for Permits;
- Organize all fire, life, safety, spills, etc. under a single Element heading rather scattered throughout the regulations (same for water, geology, oil field facilities, wells, etc.)
- "Downhole" requirements for wells and field operations which have not been preempted by State, e.g., 100% cementing of inside/outside of wells to be abandoned;
- Prohibit all fixed derricks and tanks as they don't exist now and are no longer operational;
- Prohibit all Underground Injection Control Class II Disposal Wells;
- Organize all wells according to a technically based approach - exploration, exploratory well, producing well, injection well, monitoring wells, etc.);
- Same with geophysical surveys, new well drilling (including completions, stimulations, etc.) reworking, redrilling, idling, plugging (usually under reworking), and abandoning;
- Require all documents, monitoring, and reporting in hard copy and digital forms;

**COMMENTS AND REVISED DISCUSSION DRAFT PETROLEUM REGULATIONS  
FOR CULVER CITY UNIT OF INGLEWOOD OIL FIELD**

**NOTE: The following is City staff's initial Discussion Draft of the substantive regulations proposed for the Culver City portion of the Inglewood Oil Field. City staff intends to request, at a future public meeting, that the City Council, by resolution, initiate the preparation and processing of a SPECIFIC PLAN, in accordance with the procedures set forth in Culver City Municipal Code, Chapter 17.570, incorporating these substantive regulations.**

***Original Reordered TOC***

Section 1	Purpose and Intent Section
Section 2	Acronyms and Definitions
Section 3	Applicability
Section 4	Application Filing, Processing, Review and Fees
Section 6	Conditions on Assignment of Permit
Section 7	Condition Compliance
Section 5	Findings and Decision
Section 8	Expiration, Revocation or Modification of Permit
Section 57	Conflict of Provisions - Severability
Section 10	Construction and Grading Permits
Section 55	Complaints
Section 56	Community Outreach
Section 44	Duplicate Notices
Section 45	Inspection of Premises
Section 9	Other Administrative Items
Section 11	Operating Standards
Section 41	Other Standards
Section 12	Fire Operating Permit, Protection and Emergency Response
Section 20	Safety and Risk of Upset
Section 53	Safety Inspection, Maintenance, and Quality Assurance Program (SIMQAP)
Section 54	Compliance and Safety Audits
Section 21	Air Quality, Public Health and Climate Change
Section 22	Noise Attenuation
Section 23	Vibration Reduction
Section 24	Geotechnical
Section 25	Groundwater Monitoring
Section 26	Water Management
Section 27	Stormwater and Drainage Management
Section 29	Biological Resources
Section 30	Cultural Resources
<b>WELLS</b>	
Section 42	Directional Surveys Required on Certain Wells
Section 43	Filing Surveys Requirement
Section 46	Well and Production Reporting Section
Section 51	City Request for Review of Well Status Section
Section 47	Idle Well Testing and Maintenance
Section 48	<b>Injection Wells</b>
Section 31	Consolidation and Annual Drilling, Redrilling, <b>Well Abandonment, and Well Pad Restoration Plan</b>

COMMENTS - CULVER CITY PETROLEUM REGULATIONS

Dr. Tom Williams

- Section 33 Well **Rework**, Maintenance, and Abandonment Rigs
- Section 32 Hydraulic Fracturing
  
- Section 13 Sumps and Reservoirs Section
- Section 35 Well Cellars
- Section 15 Tanks
- Section 16 Location of Tanks
- Section 17 Piping and Electrical Equipment
- Section 18 Dikes and Retaining Walls Section
  
- Section 28 Storage of Hazardous Materials and Oil Field Waste Removal
  
- Section 14 Major Facilities Prohibited
- Section 34 Processing
  
- Section 19 Toilet and Wash Facilities Section
- Section 36 Lighting Section
- Section 37 Landscaping
- Section 38 Public Roadways and Private Road Construction
- Section 39 Signs
- Section 40 Equipment Removal and Maintenance
  
- Section 41 Other Standards
  
  
- Section 49 Abandoned Well Testing
- Section 52 Oil Field Abandonment Procedures
- Section 50 Well and Well Pad Abandonment Section

**RECOMMENDED TOC**

**Section 1 Purpose and Intent Section**

- A.
- B.
- C. **Protection**
  - Public Health and Safety**
  - Occupational Health and Safety**
  - Natural Resources**
  - Environmental Resources and Qualities**

**Section 2 Acronyms and Definitions**

Petroleum - all hydrocarbon liquids, liquefiable gases, and gases

**Section 3 Applicability**

- A. **Compatibility, Stringency, and Preemption**
- B. **DOGGR Permits and Regulations**
- C. **Existing County Community Standards District**
- D. **Existing City Conditions**
- E. **Existing Facilities and Field/Unit**
- F. **Future Field/Unit/Area**

**Section XX Severability**

- County
- Regional
- State
- Federal

**Section XX Plan, Programs, Permits, and Conditions**

**A. Submissions, Processing, Review and Fees**

- Plan 2014-2035
- Programs - 5-Year/Annuals
  - Five-Year Programs
  - Annual Updates
  - Elements

- Permits
  - Drilling
  - Use

- B. Program**
- C. Plans Coordination and Consistency**
- D. Permits**
- E. Findings and Decision
- F. Appeals**
- G. Compliance
- H. Conditions on Assignment of Plans
- I. Expiration, Revocation or Modification of Permit

**Section XX Owners, Leasors, and Leases**

- Surface Owners/Leasors**
- Subsurface Owners/Leasors**

**CITY FIELDS**

**Section XX Comprehensive Field/Unit**

- "City Field"
- Designated Field or Unit
- Areas, Pools, and Zones

**CITY WELLS**

- Section 31 Consolidation and Annual Drilling, Redrilling, **Well Abandonment, and Well Pad Restoration**

**Plan**

Compliance

**Section XX. Petroleum Permits**

**WELL CONSTRUCTION AND RECONSTRUCTION**

Drilling, Reworking, Deepening, Redrilling, and Abandonment

Section 4 Application Filing, Processing, Review and Fees

**Section XX. Planning Consistency**

Section 5 Findings and Decision

**Section XX. Extensions**

**Waivers**

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DOGGR

SC-AQMD

LA-RWQCB

**Section XX Periodic Reports and Conditions**

Section 42 Directional Surveys Required on Certain Wells

Section 43 Filing Surveys Requirement

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Section 51 City Request for Review of Well Status Section

**Section 9 Other Administrative Items**

Section 57 Conflict of Provisions

Section 45 Inspection of Premises

Wells

Field

Section 55 Complaints

Section 56 Community Outreach

**Section XX Petroleum-Exploration Permits**

**Surveys**

**Pads(Single Well) / Platforms \*Two or More Wells)**

Pads/Platforms  
Singular  
Multiple

**Temporary/Portable Facilities/Equipment and OPERATIONS**

**Construction - Drilling,  
Reconstruction - Reworking, Redrilling, and/or Deepening  
Completion**

**Section XX Conventional and Unconventional Construction and Reconstruction**

- Section 48 Injection Wells
- Section 47 Idle Well Testing and Maintenance
- Section 32 High Pressure Stimulation and Hydraulic Fracturing
- Section 33 Well Rework, Maintenance, and Abandonment Rigs

**Section XX Annual Petroleum-Production Permits**

**Section XX Permanent Facilities and Equipment**

**A. Wells**

**1. Types**

- Active Producer
  - Gases
  - Oil
- Active Injectors
  - Waters
  - Gases
- Idle
- Monitoring
- Disposal-Injector
- Abandoned Wells

**2. Well Designs**

- Bores
- Casings
- Cementing
- Mudding
- Perforations

**3. Section 35 Well Cellars**

Singular  
Multiple

**Above Ground/Head Works**

**4.**

**B. Section 41 Other Standards**

**C. Fixed Surface Field/Unit Facilities and Operations Procedures**

- Section 11 Operating Standards
- Section 14 Major Facilities Prohibited
- Section 34 Processing
- Section 13 Sumps and Reservoirs
- Section 15 Tanks
- Section 16 Location of Tanks
- Section 18 Dikes and Retaining Walls
- Section 17 Piping and Electrical Equipment
- Section 38 Public Roadways and Private Road Construction  
Ditches  
Detention Basins
- Section 28 Storage of Hazardous Materials and Oil Field Waste Removal  
**BioFarms**

**D. Miscellaneous Facilities**

- Section 19 **Sanitary and Hygiene** Toilet and Wash Facilities
- Section 36 **Lighting and Screening**
- Section 37 Landscaping
- Section 39 Signs

**Section XX. Removal/Abandonment**

- Section 40 Equipment Removal and Maintenance
- Section 49 Abandoned Well Testing
- Section 50 Well and Well Pad Abandonment
- Section 52 Oil Field Abandonment Procedures

**Section XX Public and Environmental Protective Plans Elements**

**EMERGENCY MANAGEMENT ELEMENT**

- Section 12 Fire Operating Permit, Protection and Emergency Response
- Section 20 Safety and Risk of Upset
- Section 53 Safety Inspection, Maintenance, and Quality Assurance Program (SIMQAP)
- Section 54 Compliance and Safety Audits

**AIR, NOISE, AND VIBRATION ELEMENT**

- Section 21 Air Quality, Public Health and Climate Change
- Section 22 Noise Attenuation
- Section 23 **Induced** Vibration Reduction

**WATER ELEMENT**

**Non-Degradation of Existing Water Resources and Beneficial Uses**

- Section 26 **Surface** Water Management
- Section 27 Stormwater and Drainage Management
- Section 25 Groundwater **Management Monitoring**

**GEOLOGY AND MINERAL RESOURCES ELEMENT**

- Section 24 Geotechnical  
**Geochemistry, Geophysics, and Geothermals**  
**Stratigraphy and Structural Geology**  
**Seismicity**  
**MicroSeismicity**  
**MacroSeismicity**

**OTHER ELEMENTS**

- Section 29 Biological Resources
- Section 30 Cultural Resources



**CURRENT STATUS DRAFT - 062113 FORMAT/HEADINGS TO BE REORDERED****SECTION 1. PURPOSE AND INTENT.**

The provisions in this Ordinance establish safeguards and controls for all activities and facilities related to drilling for and production of oil, gas, other hydrocarbons, and related waters within Culver City including, but not limited to, the following:

- A. Oil Operations are conducted in harmony with adjacent land uses;
- B. Cooperation with affected and adjacent government agencies in implementing all reasonable measures to reduce oil and gas operations impacts to the surrounding communities;
- C. Cooperation and coordination for multi-agency response to Oil Field emergency situations;
- D. Minimization or elimination of potential adverse impacts of Oil Operations by the implementation of area-specific regulations and mitigation measures;
- E. Before new Oil Operations activities are permitted, that existing Oil Operations facilities are in compliance with the requirements of this Ordinance;
- F. Minimization of Oil Field emergencies; in the event that an emergency occurs, regulations are in place to assist affected and adjacent government agencies in identifying all reasonable measures to reduce impacts to surrounding communities;
- G. Appearance of the Oil Field site is enhanced with landscaping and other property maintenance requirements; and
- H. New applications for oil and gas Drilling Use Permits address the consolidation of Oil Field facilities to reduce odor, visual, noise, safety, health, and environmental impacts from Oil Operations to surrounding land uses and City residents.
- I. Protection is maintained in perpetuity the City's public and occupational health and safety, natural resources, and communities' environmental resources and qualities.

**SECTION 2. ACRONYMS AND DEFINITIONS.****A. Acronyms.**

API – American Petroleum Institute  
 CalARP – California Accidental Release Prevention Program.  
 CARB – California Air Resources Board  
 CCMC – Culver City Municipal Code  
 CEQA – California Environmental Quality Act (PRC §§ 21000, *et seq.*) and the CEQA Guidelines (Title 14, CCR §§ 15000, *et seq.*)  
 dBA – decibel (measurement of noise level)  
 DOGGR – California Department of Conservation, Division of Oil, Gas and Geothermal Resources  
 EIR – Environmental Impact Report  
 EPA – United States Environmental Protection Agency  
 ERP – Emergency Response Plan  
 MND – Mitigated Negative Declaration  
 ND – Negative Declaration  
 NFPA – National Fire Protection Association  
 RWQCB – Regional Water Quality Control Board, Los Angeles Region  
 SIMQAP – Safety Inspection, Maintenance, and Quality Assurance Program  
 SCAQMD – South Coast Air Quality Management District  
 SWPPP – Stormwater Pollution Prevention Plan  
 SPCCP – Spill Prevention, Control, and Countermeasure Plan (40 CFR, Part 112)

**B. Definitions.** In addition to the definitions contained elsewhere in this Code, the following words and

phrases shall, for the purposes of this Ordinance, be defined as follows, unless it is clearly apparent from the context that another meaning is intended. Should any of the definitions be in conflict with any other provisions of the CCMC, these definitions shall prevail.

**Abandoned Well.**

**Abandonment.** The permanent plugging of a well, pipeline, or other facility in accordance with the requirements of DOGGR and the City, **and** the removal of all equipment related to the well, including the restoration of the drill site or well operation site as required by DOGGR and City's regulations.

**Annual Drilling Plan.** The Annual Drilling, Redrilling, Well Abandonment, and Well Pad Restoration Plan as set forth in Section 31.

**Blowout.** An uncontrolled release of gas, oil, or other well fluids from the well, **including through annular spaces between casings and bore holes, between cements and casings, between the cements and boreholes, and through the inner spaces of the casings.**

**Blowout Prevention.** The use of a mechanical, hydraulic, pneumatic or other device or combination of such devices, secured to the top of a well casing, including valves, fittings, and control mechanisms connected therewith which can be closed around the drill pipe or other tubular structures which completely closes the top of the casing and is designed for preventing blowout.

**Bottom Hole.** The underground location at which **the well bores** ~~drilling and well~~ terminate.

**Breakdown.** Any event that results in a violation of applicable SCAQMD rules as specified in SCAQMD Rule 430.

**California Environmental Quality Act (CEQA).** State law that requires the evaluation of a project's potential impact on the environment such as impacts to air quality, aesthetics, noise, as examples. CEQA is found in California Public Resources Code §§21000, et seq. and the CEQA Guidelines (Title 14, California Code of Regulations §§ 15000, et seq.), which provide guidance on the content, format, and process for preparing environmental reports.

**City.** The City of Culver City.

**City Council.** The City Council of the City of Culver City.

**Completion.**

**Community Development Director.** The Director of the Community Development Department of the City of Culver City, or his/her designee.

**Comprehensive Drilling Program Plan.** A long-range **program plan** consistent with this Ordinance, proposed by each Operator within the Oil Field, which describes and depicts the Oil Operations through the year ~~2028~~ **2035**.

**Confidential, Proprietary, or Trade Secret Information.**

**Construction.** *All activities related to the original creation of an oil, gas, and/or disposal well.*

**Deep Zone Well.** A well where the Bottom Hole is proposed in a deep zone (Nodular Shale, ~~and~~ ~~Sentous~~ zones, or other zones approximately 8,000 feet or deeper),

**Derrick Rig.** Any **portable** framework, tower, mast, or structure which is required or used in connection with drilling, redrilling, **reworking**, operating, or maintaining a well.

**Developed Area.** Any lot or parcel of land containing any residential, recreational (e.g. public park), institutional (e.g. school), commercial, industrial or office structures, or used for residential, recreational, institutional, commercial, industrial or office purposes. This definition does not include structures that serve the Operator's administrative and associated functions in the Oil Field.

**Directional Drilling / Well.**

**DOGGR.** *The Division of Oil, Gas, and Geothermal Resources within the Department of Conservation of the State of California.*

**Drilling.** The digging or boring into the earth for the purposes of exploring for, developing, extracting or producing oil, gas, or hydrocarbon substances from the earth or of injecting water, steam, or any other fluids, gases, or substance into the earth but does not include remediation efforts to clean-up or remove contamination.

**Drilling Project.** The erection of any **rig derrick**, or similar or related structure and/or use of any mobile equipment for the drilling, redrilling, **reworking**, maintenance, or deepening of any well hole. **A Drilling Project** ~~#~~ shall also include the installation and operation of pumps or similar equipment for the production of oil and gas or **injection** of water or other materials.

**Drilling Use Permit.** A City permit reviewed and processed in compliance with this Ordinance which is necessary to conduct any Drilling Project. ~~More than one Drilling Project may be approved under one~~ **Drilling Use Permit.**

Commented [tmy11]: Choose Rig or Derrick not both - RIG

**Drilling Equipment.** The ~~derrick~~ or rig, together with all parts of and appurtenances to such equipment or structure and, every piece of apparatus, machinery, or equipment used or erected or maintained for use in connection with drilling or redrilling, **reworking**, maintenance or deepening of any well hole.

**Drill Site.** ~~That portion of~~ Any land on which drilling equipment is placed, ~~stored, or~~ **and** utilized during the drilling, redrilling, **reworking**, maintenance or deepening of a well.

**Effective Date.** The effective date of the Ordinance establishing the provisions contained in this Ordinance.

**Emergency Management Element.**

**Emergency Response Plan.** A plan to handle anticipated emergencies as required by Section 5192 of Title 8 of the California Code of Regulations and the EPA requirements set forth in 40 Code of Federal Regulations 112, or with any emergency response regulations enacted or modified by the State of California or EPA or local agency, which are applicable to the Oil Field and which may be submitted as a separate stand-alone report or combined with other related plans or report.

**Enhanced Oil Recovery.** Any production method which involves the **injection** of water, gas, steam, or any other fluid or substance into the earth for the purpose of enhancing extracting oil or gas.

**Exploratory Well.**

**Field Rules.** Rules for the development and operations of oil fields **and units** as issued by the Division of Oil, Gas, and Geothermal Resources.

**Fire Chief.** The Fire Chief of the City of Culver City or the Chief's designee.

**Fluids.** A substance in which molecules move freely without a fixed shape, this includes any liquid or gas at ambient temperatures and pressures.

**Fracking.** See Hydraulic Fracturing.

**Gas.** Any substance, either combustible or noncombustible, which is produced in a natural state from the earth and which maintains a gaseous or rarefied state at ambient or standard temperature and pressure conditions. It shall also mean the gaseous components or vapors occurring in, or derived from, petroleum or natural gas.

**Horizontal Drilling or Well.**

**Hydraulic Fracturing.** A ~~Enhanced Oil Recovery~~ well completion and/or stimulation technique used in stimulating a ~~formation or~~ zone that involves the very high pressurized **injection** of hydraulic fracturing fluid **at equal or greater pressure levels than the zone's rock fracture pressure and proppant (such as sand)** into an underground geologic formation in order to fracture the **targeted zone formation**, thereby causing or enhancing the **zonal formation permeability e.g., zonal fracture permeability** and production of oil or gas from a well.

**Idle Well.** Any well that has not produced oil or gas or has not been used for **injection** for six consecutive months of continuous operation during the last **two (2)** or more years. An idle well does not include an active observation well.

**Inglewood Oil Field.** The approximate 1000-acre oil field located **partially** within the jurisdiction of the City of Culver City and **primarily within** the unincorporated area of the County of Los Angeles known as Baldwin Hills; ~~the "Oil Field" represents the Culver City Unit of the Inglewood Field.~~

**Injection Well.** Any well used for the purpose of injecting water, produced water, waste water, brine, hydrocarbons, steam, or any other **fluids, liquefied gases, or gaseous** substance as a means of enhanced oil recovery or disposal under the Underground Injection Control Program.

**Maintenance.** The diagnosis, repair or replacement of machinery, equipment, apparatus, structures, facilities, and parts thereof, used in connection with Oil Operations but requiring no **significant** physical changes to the casing, annular space, or bore as well as any other work necessary to reduce public health or safety hazards, other than drilling, redrilling, **deepening, or reworking**.

**Major Facilities.** Major facilities include refineries, tank farms or single tanks larger than 5,000 barrels, fractionation (such as distillation), absorption plants, gas plants, gas processing, bioremediation facility, steam drive plant, oil cleaning plant, carbon dioxide or other field gases separation or recovery plant, or water treating and processing facility. Major facilities are prohibited within the **City and any Oil Fields**.

**Mid-Zone Well.** A well where the Bottom Hole is located in a mid-zone (Rubel, Moynier, Bradna, and City of Inglewood zones or any other zone between approximately 3,500 to 7,999 feet deep).

**New Well.** A new well bore or well hole established at the ground surface or the deepening or redrilling of an existing well. An abandoned well that is redrilled shall be considered a new well.

**Odor Suppressant.** An organic emulsifier, or other compound, that is used to eliminate hydrocarbon odors by **changing or masking** ~~reducing~~ the odor-causing component of hydrocarbon materials. **Such suppressants shall be prohibited from use within the City.**

**Oil.** Crude oil **including natural gas liquids, up to API 60 gravity.**

**Oil Exploration.**

**Oil Field(s).** ~~Currently, in the City, an~~ The approximate 115-acre area of the Inglewood Oil Field that falls within the jurisdiction of the City of Culver City, and may be known as the Culver City Unit, ~~Unit.~~ **Other areas within the City may eventually become an extension as another unit of the Inglewood Field or a new Field.**

**Oil Operations.** Any activity undertaken in connection with the **exploration**, extraction, processing, production, storage, or transport of oil, gas, or other hydrocarbon substances, including, but not limited to, drilling, redrilling, **deepening, reworking**, operations, maintenance, repair, installation, construction operations, processing, enhanced oil recovery, bioremediation, well abandonment, remediation, clean-up, demolition, restoration, and revegetation.

**Operating Permit.**

**Operator.** A person, firm, corporation, partnership, association, or other business entity and its/their contractors and subcontractors that owns or holds the right to use the surface or subsurface of the land to extract oil, gas, and other hydrocarbon substances **and that is approved by the DOGGR.** In the event there are two or more persons or entities who qualify as Operators at any given time, then this term shall apply to all entities with regard to their respective operations. ~~Any Operator shall also be so designated by DOGGR. An Operator shall include any applicant who has applied for, received approval of, or acquired through transfer or assignment, a **Drilling Use Permit** or its equivalent.~~

**Outer Boundary.** The exterior surface limits of the Oil Field(s) within the City's jurisdiction ~~and contiguous with Developed Areas~~ **as projected to the surface from boundaries of unitized and the subsurface leases and areas of the Oil Field(s) beneath the City and Developed Areas and as designated and delineated by DOGGR.**

**Owner or Leaser.** **Any person, company, or trust possessing register title of ownership of subsurface/mineral rights either directly a separate right or indirectly through surface rights. All such rights shall be certified by the County of Los Angeles.**

**Permanent Structure.** Any building, facility, or equipment that is intended to or does remain in place for more than one year, and shall include all tanks.

**Petroleum.** The general term for all hydrocarbon fluids, gases, and intermediates **and other related materials, liquids, and gases.**

**Processing.** The activities required for oil, gas or other hydrocarbon ~~production~~ **extraction**, phase separation, and transport but does not include oil and gas processing activities identified in the prohibited Major Facilities defined above. Processing ~~may~~ **shall not** include ~~approved~~ unheated phase separation and dehydration of crude oil and gas and the storage, use, and treatment of separated waters produced from the well, the storage, handling, recycling, and transportation of such materials; and those processing operations required for water **injection** purposes.

**Produced Water.**

**Production.**

**Public Works Director/City Engineer.** The Director of Public Works/City Engineer of the City of Culver City or his/her designee.

**Pure Tones.** Any noise which is judged as audible as a single frequency or a set of single frequencies. Pure tones include but are not limited to noise from whistles, bells, fans or other mechanical devices that emit audible tones.

**Reconstruction.**

**Redrilling and Deepening.** **Any activities permitted under the Permit to Rework for deepening or redrilling a well.** Any drilling operation conducted through the surface opening of an existing well to deepen or sidetracking the existing well or to create a new bore hole diverting below the surface of the earth from an existing bore of an existing well.

**Reworking.** **Any activities permitted under the Permit to Rework for physical modifications of a**

**well.** Recompletion of an existing well, which includes operations such as liner replacements, plugging, gravel-packing, perforating, hydraulic fracturing, and acidizing but does not include deepening or sidetracking operations that extend beyond the existing well bore. ~~The equipment used for reworking are sometimes referred to as a workover rig and large hoists or cranes.~~

**Sensitive Developed Area.** A lot or parcel that contains a single or multi-family residence, park, school, or health care facility.

**Settlement.** The sinking of the land surface due to consolidation or compaction of the soil when the voids containing water or ~~gases~~ air are reduced, causing the soil particles to pack together more tightly and reducing the overall volume of soil.

**Shallow Well.** The Bottom Hole is less than 3,500 feet deep.

**Shallow-Zone Well.** *A well where the Bottom Hole is located in a shallow-zones or any other zone between approximately 500 to 3,500 feet deep).*

**Slant Drilling.** Non-vertical drilling, ~~directional drilling, or drilling~~ at a relatively significant angle of 7-15 degrees from vertical.

**Spill Contingency Plan.** *A plan for each "field" in compliance with AB 1960 implementation regulations required secondary containment features around fluid containers, regular testing and maintenance of tanks and pipelines, and maintenance of a detailed spill contingency plan.*

**Spill Prevention, Control, and Countermeasure Plan (SPCCP).** A plan required under 40 Code of Federal Regulations Part 112, or of any subsequently enacted and currently in effect EPA provisions. The SPCCP addresses the prevention, control, and mitigation of oil spills to avoid impacts to navigable waters. The SPCCP may be combined with the DOGGR/California required Spill Contingency Plan which are applicable to the Oil Field and may be submitted as a separate stand-alone report or combined with other related plans or report.

**Stimulation.**

**Subsidence.** Settlement or sinking of the ground surface due to extraction of petroleum or groundwater.

**Top Hole.** The surface location from which drilling is commenced *and production facilities are installed.*

**Uplift.** The rising or rebound of the ground surface.

**Well.** Any oil or gas well, or exploratory well or well for the discovery of oil or gas, or for the production of oil or gas, or any well on lands producing or reasonably presumed to contain oil or gas or any well drilled for the purpose of injecting fluids or gases for the purpose of increasing stimulating oil or gas production ~~recovery~~, repressuring or pressure maintenance of oil or gas reservoirs, or disposing of Oil Operations Field-waste fluids or any well drilled within or adjacent to an oil or gas pool for the purpose of obtaining water to be used in production stimulation or repressuring operations.

**Well Servicing.** Any maintenance work performed within any existing well which does not require or cause the permanent physical change of the well, casings, cement seals, plugs, or bore and which does not involve drilling, re-drilling, or reworking or issuance of DOGGR permits.

**SECTION 3. APPLICABILITY.**

*The City shall have a tiered system of regulations for both exploration and production of wells and field(s) based on the overall Plan for future development of all petroleum resources within the City that will be implemented through a series of five-year Annual Programs that in turn shall be updated annually with increasing availability of information, with new technologies, and with experience with the proposed and permitted wells and facilities for construction and reconstruction consistent with the Comprehensive Plan and Annual Programs, and with improved technologies reviews. All permits shall be reviewed and considered as to consistency with Programs and the Plan. These tiered guidelines and regulations shall reflect the City's unique community resources, the natural resources and setting, and the environmental quality and their protection.*

**A. Compatibility, Stringency, and Preemption**

*The regulations are focused on the protection of the health, safety, natural resources and environmental quality of the City area. Petroleum-related regulations and ordinances of the County of Los Angeles (Baldwin Hills Community Standards District)*

*Other regulations which may apply to petroleum development and production may apply where the City has not included such, but the City's regulations are considered to be equal or more stringent than those of other parties. Thereby the City's regulations shall be considered most appropriate for the protection of the City's health, safety, natural resources, and environmental quality.*

*The State of California has designated the DOGGR as the State's responsible agency for the exploration and production of petroleum. However, the DOGGR has recognized that its regulations and underlying legal foundations may not be adequate to appropriately regulate, enforce, and report on development and exploitation of petroleum resources in the unique conditions that may pertain to the City's communities, resources, and environmental quality. The State has preempted certain elements and has left others to local jurisdiction's better considerations of local conditions. Similarly DOGGR has implemented regulations which shall provide a minimum of protection consistent with the general geological and industrial conditions of the State as a whole while allowing locally focused improvements.*

**B. DOGGR Permits and Regulations**

The Division of Oil, Gas, and Geothermal Resources of the Department of Conservation of the State of California

**C. Existing County Community Standards District**

**D. Existing City Conditions**

**1. Comprehensive ~~Petroleum Plan Drilling Program~~ *Petroleum Program(s) Drilling Plan*.** Prior to the submittal by any Operator of their first application for a Drilling Use Permit or an Annual *Petroleum Program(s) Drilling Plan* under this Ordinance, the Operator shall submit for review and approval by the City Council, a **Comprehensive Petroleum Drilling Plan (The Plan)** in accordance with the provisions of Section XX.

*The Plan shall guide the development and updating of Annual Petroleum Programs and the issuance of permits.*

**2. The initial Plan and Program shall describe and reflect existing City Conditions, existing petroleum development, and proposed first year's petroleum programs and expected further four years developments.**

**3.**

**E. Existing Facilities and Field/Unit**

**1. The Plan shall provide an inventory, status, and documentation for all petroleum facilities and equipment within the City**

- a. *Surface operating facilities and equipment*
- b. *Subsurface operating facilities and equipment*
- c. *Surface and subsurface idled facilities and equipment*
- d. *Surface and subsurface abandoned facilities and equipment*
- e. *Existing petroleum related facilities, structures, and wells are limited and were and are limited to those east of Ballona Creek and Jefferson Ave.*

**2. Existing operating petroleum related facilities, structures, and wells are limited and were and are limited to those east of Ballona Creek and Jefferson Ave.**

**3. Existing facilities and their relationships with all geological and petroleum resources and facilities may go beyond the City's jurisdiction.**

**F. Future Field/Unit/Area**

*Petroleum resources are currently known are restricted to about "115 acres" for the Culver City Unit/Pool/Area of the Inglewood Field. While the actual productive geological formations may extend well beyond the surface area of 115 acres.*

1. *The Plan shall include all portions of existing fields or new fields, units, and areas for petroleum related exploration and production activities.*
2. *If new fields are to be developed, existing or prospective operators may extend existing or delineate new fields which shall require updating of the then current Plan and appropriate Program(s) for the extension or new field, play, pool, or unit.*
- 3.

G. ~~Annual Petroleum Drilling Program.~~ At the beginning of each year of the ~~Plan~~~~Comprehensive Drilling Program~~ period, the operator(s) shall submit for review and consideration approval by the Community Development Director, an ~~Annual Petroleum Program~~~~(the Program) Drilling Plan~~ and its updates accordance with the provisions of Section XX.

H. Drilling Use Permit. An application for a Drilling Use Permit shall be required for any Drilling Project. All Drilling Use Permits shall comply with the approved Comprehensive Drilling Plan and relevant Annual Petroleum Drilling Program. A Drilling Use Permit shall only be issued for drilling in accordance with this Ordinance. Drilling without a Drilling Use Permit is prohibited.

**SECTION 4. APPLICATION FILING, PROCESSING, REVIEW, Transfer AND FEES.**

*A clear process must be described for filing of the Plan, Programs, and permits' applications and their contents, for the review/considerations, for approvals, and all that relates to the process.*

*Plan - general organization through 2035  
Programs with all the "Elements"  
Permits - construction and operations*

**A. Filing for Plan, Programs, and Permits**

**COMPREHENSIVE PETROLEUM PLAN**

A. *The Comprehensive Drilling Plan complies with the provisions of this Ordinance and all other applicable provisions of the CCMC and is consistent with but may be more stringent than the requirements of DOGGR..*

**ANNUAL PETROLEUM PROGRAMS**

*The Annual Petroleum Program(s) may be approved, with or without conditions, only after first making all of the following findings, and any additional findings as determined by the City Council to be necessary to protect the public health, safety and welfare, the natural resources, and the environment of the City.*

**. DRILLING USE PERMITS FILING.**

*The Drilling Use Permit(s) may be approved, with or without conditions, only after first making all of the following findings, and any additional findings as determined by the City Council to be necessary to protect the public health, safety and welfare, the natural resources, and the environment of the City.*

Y. *The Application for Drilling Use Permits complies with the provisions of this Ordinance and all other applicable provisions of the CCMC and is consistent with but may be more stringent than the requirements of DOGGR..*

New Drill  
Rework Redrill Deepening  
Conversions - Producer Injector

Inactive - Idle Abandoned  
Annual Operations and Maintenance

- Z. Reactivation of an abandoned well shall require the filing and approval of a new Drilling Use Permit application by the Community Development Director. *[WHY IS THIS PUT IN HERE????]*

**1. Forms and Attachments**

**2. Submissions**

Program 2014-2035  
Plans - 5-Year/Annual  
Elements  
Permits

- 3. ~~Comprehensive Petroleum Plan Drilling Program.~~ *A* ~~The Comprehensive Petroleum Plan Drilling Program~~ shall cover the period of Petroleum Operations through the year ~~2028~~ **2035**, shall be filed by each Operator for review and **consideration** approval by the City Council, prior to the approval of any Annual Drilling Program Plans or issuance of any Drilling Use Permit, . The ~~Comprehensive Plan Drilling Program~~ **within the existing field in the City** shall include:

- a. Maximum number of wells proposed to be drilled or redrilled through ~~2028~~**2035**, which shall not exceed a total of 30 wells;
- b. Location, extent and depth of the oil-producing formations and zones;
- c. Scope, location, depth and extent of the Drill Sites;
- d. Type and nature of the oil recovery methods;
- e. Size, type and location of the **exploration and production** structures and ~~Drilling~~ equipment to be utilized in connection with ~~Petroleum~~ **Oil** Operations;
- f. Description of the number and location of existing wells and equipment used in existing ~~Petroleum~~ **Oil** Operations;
- g. Additional information as may be required by the Community Development Director to demonstrate compliance with this Ordinance; and
- h. **Periodical** revisions to the ~~Comprehensive Petroleum Plan Drilling Plans~~ **to be** reviewed and **considered for approval** by the City Council in the same manner as the initial ~~Comprehensive Drilling Plan~~ **Drilling Plan**.
- i. ~~The Operator shall establish all~~ Evidence in support of the findings required by Section 5 (Findings and Decision), below.

- 4. ~~Annual Petroleum Program Drilling Plans.~~ At the beginning of each year of the ~~Comprehensive Plan Drilling Program~~ period, an **Annual Petroleum Program Drilling Plans and any updates** shall be filed by each Operator in accordance with the provisions of Section 31. The first Annual ~~Petroleum Program (The Program or Programs) Drilling Plans~~ may be included along with the ~~Comprehensive Plan Drilling Program~~ for Council considerations.

- a.
- b.

- 5. **Drilling Use Permit.** An application for a Drilling Use Permit shall be completed, filed, and processed in compliance with this Ordinance prior to the commencement of any Drilling ~~activity~~ **Project** and shall comply with the provisions **and conditions** of the ~~Plan Comprehensive Drilling Plan~~ and the ~~Annual Program Drilling Plans~~ **Plan**. The application package shall include all information specified in the application, **information, inclusions, and updates as required by the Plan and the Program(s)**, and any additional information required by the Community Development Director in order to conduct a thorough review of the proposed Drilling ~~activities~~ **Project**.

- a.
- b.

- 6. **Annual Use Permit.** *An application for a Use Permit or renewal shall be completed, filed, and processed in compliance with this Ordinance prior to the commencement of operating year and*



*shall comply with the provisions and conditions of the Plan, the Program, and prior permits, if oertinent. The application package shall include all information specified in the application, information, inclusions, and updates as required by the Plan and the Program(s), and any additional information required by the Community Development Director in order to conduct a thorough review of the proposed petroleum operations activities.*

- a.
- b.

**B. PROCESSING**

1. **Programs, Plans, and/or Permits and Environmental Conditions.** As a condition of approving any ~~Comprehensive Petroleum Plan~~ ~~Drilling Plan~~ or ~~Annual Petroleum Programs Drilling Plan~~, or granting any ~~Drilling Use Permit~~, the City Council or ~~Community Development Director~~, as applicable, may modify any of the requirements, standards, thresholds or mitigation measures of this Ordinance, or plan or study required by this Ordinance, or impose additional requirements, standards, thresholds or mitigation measures as determined by the City Council or ~~Community Development Director~~, as applicable, to be necessary to adequately protect the public health and safety and the environment from Oil Operations, **Activities, and/or Facilities**. ~~The City Council or Community Development Director, as applicable, may also determine that certain requirements, standards, thresholds or mitigation measures in this Ordinance should be waived or lessened in order to avoid unintended environmental impacts.~~

- a.
- b.

~~2. SECTION 57~~ **CONFLICT OF PROVISIONS.**

In the event of any conflict between this Ordinance and any other provisions of the CCMC, this Ordinance shall prevail. ***If conflicts appear between sections and subsections of this ordinance, the more stringent conditions shall prevail and the subordinate section shall be revised and updated during the next appropriate scheduled review for the Plan and/or Program.***

- a. County
- b. Regional
- c. State
- d. Federal
- e. Severability

**C. REVIEW**

1. **Findings and Decision Sec 5.**

The **Comprehensive Petroleum Drilling Plan (the Plan)** may be approved, with or without conditions, only after first making all of the following findings, and any additional findings as determined by the City Council to be necessary to protect the public health, safety and welfare, the natural resources, and the environment of the City.

- a. The ~~Comprehensive Drilling Plan~~ complies with the provisions of this Ordinance and all other applicable provisions of the CCMC ***and is consistent with but may be more stringent than the requirements of DOGGR.***
- b. Reasonable and feasible measures ***are*** identified and required to reduce and minimize potentially significant impacts from the Oil Operations, **Activities, and Facilities**.
- c. The Oil Operations described in the ~~Comprehensive Drilling Plan~~ will not be detrimental to the public interest, health, safety, or general welfare, the natural resources or the environment, or injurious to persons, property, or improvements in the vicinity of and areas surrounding the Oil Field(s).
- d. **Programs**

2. **Plan, Programs Approval and Permit Issuance.**

- a. The ~~Comprehensive Plan Drilling Plan~~ shall be reviewed and ***considered approved*** by the City Council in accordance with the Findings set forth in Section 5.
- b. All ~~Annual-Program(s) Drilling Plan~~ shall be reviewed and ***considered approved*** by the Community Development Director in accordance with the provisions set forth in Section 31.
- c. All ~~Drilling Use Permits~~ shall be reviewed and ***considered approved*** by the Community Development Director in accordance with the provisions of this Ordinance.

- d. No ~~Drilling Use Permit~~ shall be issued, nor shall any construction permits be issued, until all permit fees are paid in full, **all bonds, indemnifications, and other guarantees are in place and effective**, and all existing Oil Operations are in substantial compliance with all conditions of existing **Plan, Programs and Drilling Use Permits** and all provisions of this Ordinance.
- e. **All Annual Use Permits shall be reviewed and considered by the Community Development Director in accordance with the provisions of this Ordinance.**
- f. **No Annual Use Permit shall be issued, nor shall any construction permits be issued, until all permit fees are paid in full, all bonds, indemnifications, and other guarantees are in place and effective, and all existing Oil Operations are in substantial compliance with all conditions of existing Plan, Programs and Permits and all provisions of this Ordinance.**

### 3. Appeals

**Any applicant for Plan, Programs, and/or permits may appeal the decision of the Director to the City Council within 30 days of receipt of such decision.**

### 4. Compliance

**Any applicant or permittee for Plan, Programs, and/or permits shall compliance with all conditions and requirements within a timely period of the decision of the Director to the City Council and such compliance shall be deemed as acceptance of all conditions and requirements within 30 days of receipt of such decision. The Operator shall comply with the Compliance Management Element of the appropriate Annual Petroleum Program or as modified by the permit process.**

### 5. Transfers and Assignments (Sec.6)

**Any applicant or permittee for Plan, Programs, and/or permits may transfer an application or permit by proper and timely notice to the Director for review, consideration, referral to Council, and decision. The current applicant or permittee shall continue activities and compliance with all conditions and requirements until a decision of the Director or the Council has been attained. The Director and/or Council may require additional conditions and documentation prior to or during the transfer or reassignment is completed.**

- a. No **Drilling Use Permit** issued pursuant to this Ordinance may be assigned or otherwise transferred by the **existing** Operator without first obtaining consent to the proposed assignment or transfer from the Community Development Director. In the event the Operator desires to transfer its rights to a **prospective** new Operator, the **existing** Operator shall notify the Community Development Director of the proposed transfer and shall submit in writing the following information:
  - (1) the name and address of the ~~proposed~~ **prospective** new Operator,
  - (2) the **prospective** Operator's interest in the Drilling Project,
  - (3) the proposed date of the transfer,
  - (4) the name, address, phone number and email address of the ~~proposed~~ **prospective** new Operator's agent designated for service of notices,
  - (5) written acknowledgement by the ~~proposed~~ **prospective** new Operator that it will be bound by, and will comply with, all provisions of this Ordinance and all conditions imposed in connection with any permits, consents or approvals granted pursuant to this Ordinance,
  - (6) any acknowledgement or approval by DOGGR of the new operator's status,
  - (7) information from the ~~proposed~~ **prospective** new Operator that will satisfy the financial responsibility required by this Ordinance, **and**
  - (8)
- b. Prior to the Community Development Director's consideration of an assignment, a new application for a **Drilling Use Permit** shall be filed ~~by~~ and the **prospective** new Operator shall be required to comply with all conditions and requirements, which are in effect at the time of **the application and** assignment.
- c. Any existing **Drilling Use Permit**, which has been assigned or transferred contrary to the provisions of this Ordinance, shall be subject to revocation by the Community Development Director.
- d. as a condition to receiving approval for a transfer, a prospective new Operator must demonstrate, to the satisfaction of the Community Development Director, a complete understanding of and ability to

fully comply with all provisions of this Ordinance (including but not limited to an ability to comply with all of the insurance, indemnification and other financial responsibility requirements). No later than 90 days after the assignment or transfer, the **prospective** new Operator shall provide the Community Development Director

- e. with evidence that all new Operator's personnel have received training and are capable of fully complying with all safety and environmental protection requirements.
- f. The Community Development Director may impose reasonable conditions in connection with any approval of a proposed assignment or transfer, and any such approval will not be effective unless and until the ~~proposed~~ **prospective** new Operator(s) accepts such conditions in writing **and provides all financial guarantees and arrangements.**

**6. EXPIRATION, REVOCATION OR MODIFICATION OF PERMIT. (Sec.8)**

- a. A **Drilling Use Permit** shall expire 90 days from the date of approval if actual ~~drilling~~ **Oil Operations** have not commenced, unless otherwise specified in the Permit.
- b. If drilling or other substantial work on a well ceases for a period of 180 days, as determined by the Community Development Director, Operator shall abandon the drilling and the **Drilling Use Permit** for that well shall expire.
- ~~c. Reactivation of an abandoned well shall require the filing and approval of a new **Drilling Use Permit** application by the Community Development Director. **[WHY IS THIS PUT IN HERE????]**~~

- c. A time extension for the expiration period set forth in Subsections 15.14.035.A and 15.14.035.B, herein above, may be requested in writing by the Operator, accompanied by the required filing fee. The burden of proof is on the Operator to establish, with substantial evidence, that the Drilling Use Permit should be extended. Upon determination that the Operator has made a good faith effort to commence actual drilling operations, the Community Development Director may extend the time to establish an approved **Drilling Use Permit**.
- d. A **Drilling Use Permit** may be **suspended**, revoked or modified by the Community Development Director in reliance on written or oral testimony or other information which, by a preponderance of evidence, shows it is in the interest of the public health, safety or general welfare or for the protection of the natural resources and the environment, to revoke or modify the Permit.
  - 1) The Community Development Director shall hold a public hearing to determine if the Permit granted in compliance with the provisions of this Ordinance should be revoked or modified. Written notice shall be mailed at least 21 days before the public hearing to the Operator and property owner, as identified in the records of the Los Angeles County Assessor, unless a more current source of this information is known.
  - 2) The Community Development Director's decision to revoke or modify a **Drilling Use Permit** may be appealed to the City Council by submitting a written request for appeal with the City Clerk within 15 calendar days after the decision date identified in the notice of decision. The appeal shall specifically state the pertinent facts of the case and the basis for the appeal. Appeals shall be accompanied **by the filing fee established by the City Council Fee Resolution.**
  - 3) **???????????** Upon notification to the Operator and surface and/or subsurface property owners/leasors of a revocation or modification hearing, the **Drilling Use Permit** shall be automatically **suspended**. When necessary, in order to protect public health or safety or the environment, an **authorized City official** may order all or any portion of the operations formally authorized by the **Drilling Use Permit**, to cease during the time of suspension.

**e. Revocation or Modification of Permit (Sec.8)**

**D. FEES AND PENALTIES.**

- 1. **Costs of Implementing Monitoring and Enforcing Conditions.**  
 The Operator shall be fully responsible for all reasonable costs and expenses incurred by the City or any City contractors, consultants, or employees, in documenting, implementing, monitoring, or enforcing this Ordinance, including but not limited to, costs for permitting, permit condition implementation, mitigation monitoring, reviewing, compiling, storing, and verifying information contained in reports and plans,

undertaking studies, research and inspections, administrative support, fire training and equipment, emergency response and including the fully burdened cost of time spent by City employees on such matters. Funds from the Draw-Down Account may be used to pay for such costs.

**Plan, Program, and Permit Applications and Renewal Fees.** *All City activities related to petroleum exploration, development, production, and operations within the City shall be fully funded by fees and assessments on the Owners and Operators of mineral rights development within the City.*

- a. The Operator shall pay to the City:
    - 1) A fee for the processing of the Comprehensive Petroleum Plan Drilling Plan.
    - 2) A fee for the processing of each Annual Petroleum Programs Drilling Plans.
    - 3) A permit fee for the Drilling Use Permit or transfer of ownership, payable at the time of filing the application.
    - 4) **A permit fee for the Annual Use Permit or transfer of ownership, payable at the time of filing the application.**
  - b. The fees set forth in this Section shall be established by a resolution of the City Council ~~per Section 9.G.~~
  - c. All permit fees, as required in this Ordinance, shall constitute a lien on the surface and subsurface premises where the drilling is occurring to the extent of the Operator's interest **and lease conditions** therein.
  - d. The permit fees, as required in this Ordinance, are in addition to any other applicable fees required by the CCMC.
2. **Schedule of Fees.** The City may, from time to time, adopt a schedule of fees to be charged to the Operator for various activities that will be undertaken by the City pursuant to this Ordinance, including, but not limited to, the processing of ~~the Plan-Comprehensive Drilling Plans, Program(s) Annual Drilling Plans and Drilling-Use Permit~~ applications as set forth in Section 4, Abandonments, review of plans and studies, annual inspections, and any enforcement actions for Well sites, Oil Operations, facilities, and other equipment related to oil and gas activities.
3. **Draw-Down Account.**
- a. The Operator shall maintain an account with the City from which actual costs will be billed and deducted for the purpose of expenses involved in the City's considerations, review, processing, assessment, monitoring and enforcement of the **Plan, Programs, and Drilling Use Permit(s)** (hereinafter "Draw-Down Account").
  - b. The Draw-Down Account will be used for covering the expense of verification of the information contained in any required applications or reports, enforcement, permitting, audits, mitigation monitoring, undertaking studies, research and inspections, administrative support, fire training and equipment, the hiring of independent consultants, and the fully burdened cost of time spent by City employees on such matters, as those costs are defined in the City's User Fees and Charges schedule as adopted by resolution of the City Council.
  - c. The initial amount to be deposited by the Operator shall be determined by the **City's Chief Financial Officer** based on the overall cost and scope of the proposed **Plan, Programs, and Drilling Use Permit**.
  - d. Withdrawals from the Draw-Down Account must be approved by the City's Chief Financial Officer.
  - e. Whenever withdrawals from the Draw-Down Account have reduced the balance to less than 50 percent of the initial amount deposited, the Operator shall deposit supplemental funds within 30 days of the date of written notification to bring the Draw-Down Account to at least 75% of the initial amount deposited. There is no limit to the number of supplemental deposits that may be required.
  - f. The City's Chief Financial Officer may, from time to time, increase the minimum amount of supplemental funds to account for inflation or the City's experience in obtaining funds from the Draw-Down Account or as to the adequacy of the funds to cover the expenses.
4. **Bond and Insurance Requirements.** No Drilling Use Permit **nor approval of the Plan or Programs** shall be issued pursuant to this Ordinance, unless the Operator(s) and Owner(s)/Leasor(s) has complied with and satisfied all bond and insurance requirements established by resolution of the City Council, which may be periodically updated. These insurance requirements shall be in addition to all other indemnification, insurance and performance security required by federal, state, and **other** local regulations and permits.

**5. Indemnification.**

- a. The Owners/Leasors (surface and subsurface), Operator, and any approved assignee and transferee, shall indemnify, defend (with legal counsel approved by the City) and hold harmless the City, and its elected and appointed officials, officers, employees, agents, contractors and consultants from any and all claims, demands, actions, judgments, damages, injuries, losses, lawsuits and liabilities, including court costs, judgments and attorneys' fees, arising from or in any manner connected to:

- (1) the approvals of any Plans, **Programs**, or other submittals, including the **Drilling Use Permit**; and
- (2) construction, implementation or operation of the Drilling Project covered by the **Drilling Use Permit** and any **Oil Operations**, or activities related thereto.

***[Remediation should not be included under other administrative and financial aspects]***

- b. Operator and subsurface leasors/owners shall be jointly and severally responsible for the investigation, assessment, removal, treatment and remediation (collectively, "Remediation") of any substance, including, but not limited to, petroleum substances and hazardous substances (as defined in 42 U.S.C. Section 9601(14), discharged, dispersed, released, or escaped into soils, water or groundwater from or in connection with any Drilling Project, or the Oil Operations. Such Remediation shall be conducted in full compliance with all applicable City, county, regional, state and federal laws, ordinances, rules, regulations, requirements, directives and orders whatsoever, present or future, and at Operator's sole cost and expense. If Operator fails to take any action required pursuant to this Section, the City may, but shall not be obligated to, take all actions it deems appropriate with respect to the discharged, dispersed, released, or escaped substance. **Operator shall reimburse the City for all expenses reasonably incurred in connection with their above described actions including, but not limited to, all direct and indirect costs relating to the Remediation. This has been stated before** Operator's obligations under this Section extend to all properties impacted by Operator's Drilling Project, Oil Operations and other activities related thereto.

6. **Penalty for Violation of Conditions.** At the discretion of the Community Development Director, taking into account the nature of the violation, the Operator may be subject to an amount not less than \$1000 or more than \$10,000 per day per violation. A written notice with a description of the associated penalty and required timeframe for addressing the violation will be sent to the Operator and surface and subsurface land owners/leasors in the event of a violation. The penalties set forth in this Section are not exclusive, but shall be in addition to any other remedies available for a violation of the CCMC.

***Plan, Program, and Permit Applications and Renewal Penalties All City activities related to petroleum exploration, development, production, and operations within the City shall be fully funded by fees and assessments on the Owners and Operators of mineral rights development within the City.***

- a. ***The Operator shall pay to the City penalties for non-compliance with this Ordinance and conditions included therein as determined by the Director.***
- b. ***The penalties set forth in this Section shall be established by a resolution of the City Council.***
- c. ***All penalties, as required in this Ordinance, shall constitute a lien on the surface and subsurface premises where the drilling is occurring to the extent of the Operator's interest and lease conditions therein.***
- d. ***The penalties, as required in this Ordinance, are in addition to any other applicable fees, other penalties, and other financial requirements by the CCMC.***

**SECTION XX OWNERS, LEASORS, AND LEASES**

***All mineral rights and/or subsurface properties owners shall have financial and other rights and responsibilities similar to those of surface property owners within the City.***

- A. ***Prior to submission of any application for petroleum-related permits, the Operator shall submit a listing of such properties and ownerships involved in the petroleum activities subject to this ordinance and copies of all related leases for the field(s), well locations and routes, and related activities.***
- B. ***Such leases and the leasors shall clearly identify and delineate the lease boundaries within the City's***

**boundaries. Where the subsurface lease boundaries may not be coincident with surface property boundaries, the Operator shall clearly provide the delineations of both properties and the owners/leasers of both surface and subsurface properties along with pertinent up-to-date contact information.**

## **SECTION XX COMPREHENSIVE PETROLEUM PLAN**

**The Comprehensive Petroleum Plan (The Plan) shall be developed and submitted to the City for review, consideration, and decisions prior to submission of any Annual Petroleum Program**

### **A. Plan Contents**

#### **1. FILING SURVEYS REQUIREMENT. - 43**

a. A surface survey shall be prepared by a land surveyor or civil engineer registered in the State of California and qualified to prepare such surveys and ~~The surveyor or civil engineer~~ shall place a certification on the survey maps stating: "I hereby certify that I am a registered land survey (or civil engineer) of the State of California; that this map consisting of (#) sheet(s) is a true and complete survey as shown and was made by me or under my direction on (date); and accurately reflects the requirements contained in Section 43 of this Ordinance."

b. and shall which indicates the location and number of well heads within the Oil Field, and a plat of each sub-surface directional survey,

c. The survey shall be based on the City's GPS coordinate system and be in AutoCAD format (latest version).

d. A digital copy of the survey shall also be submitted.

## **SECTION 42. DIRECTIONAL SURVEYS REQUIRED ON CERTAIN WELLS.**

Whenever Operator drills, re-drills, or deepens any well, or well hole, and the Top Hole or Bottom Hole location is within 400 feet of any exterior boundary line of any City- owned property, the Operator shall make, record and keep true and accurate sub- surface directional surveys of such well or well hole, with stations at not more than 100 foot intervals in such well or well hole. The result of each survey shall be fully and accurately shown on a plat, which shall be submitted to the Community Development Director. Each plat shall include:

**A.** The exterior boundaries of the property on which such well or well hole has been or is being drilled, re-drilled or deepened; and, if such property is part of, but less than the whole of, a larger parcel of land owned, leased or controlled, or operated or to be operated, as a single drilling or operating unit of lease, the exterior boundaries of such larger parcel.

**B.** The location of such well or well hole on the surface in relation to such boundaries.

**C.** The sub-surface location of the point of cementing each string of casing.

**D.** The sub-surface location of the lowest point in such well or well hole, from which production of oil, gas and/or other hydrocarbon substances is procured or obtained.

**E.** The continuous and entire course of the well hole, as surveyed, shall be presented accurately on one plat.

#### **2. WELL AND PRODUCTION REPORTING 46**

Operators proposing well drilling operations on the Oil Field shall provide annual Production Reports to the Community Development Director on the well production within the area of the field under the jurisdiction of the City as well as the overall field. This reporting shall include all copies of all DOGGR Forms 110 and 110B during the previous 12 months; amount of oil and gas produced by well number; number and mapped location of

all wells (active, injection); the number and mapped location of abandoned and idle wells, including date each well was idled or abandoned; and any other information requested by the City.

**3. CITY REQUEST FOR REVIEW OF WELL STATUS. 51**

- a. The Community Development Director shall periodically request reviews and status of the Operator's wells in the Oil Field.
- b. In addition, the **Director** may submit to DOGGR a list of wells that should be plugged and abandoned as specified in Public Resources Code Section 3206.5 or any subsequently enacted state law related to a local jurisdiction's right to request state-agency review of idle wells.
- c. The failure of the Community Development Director to submit a request to DOGGR for a well to be plugged or abandoned shall not result in a waiver of the right to request that the well be plugged and abandoned in the future.

Commented [tmyl2]: First Use of Director for CD Director - PREFERRED

**DUPLICATE NOTICES. 44**

The Operator shall file with the Community Development Director a duplicate notice of all notices required by any State regulatory agency.

DOGGR

SCAQMD

LARWQCB

**INSPECTION OF PREMISES. 45**

Any City official shall have the right and privilege, at any time, to enter upon any property owned or operated by the Operator within the City for the purpose of making inspections.

Wells

Field

**COMPLAINTS. 55**

All complaints related to Oil Operations received by the Operator shall be reported on the same business day to the Community Development Director and Fire Chief. Notification of complaints relating to immediate life safety issues shall be made to the affected emergency response agencies no later than 30 minutes after receiving the complaint. In addition, the Operator shall maintain a written log of all complaints and provide that log to the Community Development Director and Fire Chief and other interested parties (i.e. community groups or other interest groups) as identified by the City on a quarterly basis. Depending upon the nature of the complaint, the Operator shall report the complaint to SCAQMD, DOGGR, and any other appropriate agencies with oversight authority regarding the complaint at issue. If the complaint is received after normal business hours, it shall be reported to the Community Development Director and Fire Chief and the agencies at the opening of the next business day.

**COMMUNITY OUTREACH. 56**

Operator shall hold community meetings on an annual basis to provide updates on Oil Operations.

**SECTION 9. OTHER ADMINISTRATIVE ITEMS.**

- D. **Written Consent Requirement.** Prior to the issuance of any **Drilling Use Permit**, a covenant and agreement, on a form provided by the Community Development Director and in form and substance acceptable to the City Attorney, acknowledging and agreeing to comply with all terms and conditions established herein, shall be signed by the Operator and the subsurface owners/lessors and recorded in the County Recorder's Office. The covenant and agreement shall run with the subsurface and **surface???** lands and shall be binding on any subsequent **Operators**, owners, lessors, and tenants or occupants of the Oil Field. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Community Development Director **along with the Programs and/or permits**. Such agreement shall include indemnity obligations consistent with the terms set forth in Sections 15.14.040(C)(1) and 15.14.040(C)(2) above.
- H. **Periodic Review.** *[This is not another financial or administrative issue put with Plan or Programs]*
1. The Planning Division *[First mention of Pla.Div.]* shall conduct a comprehensive review of the provisions of this Ordinance at least every five years to determine if the provisions of this Ordinance are adequately protecting the public health, safety, and general welfare. Such reviews shall, among other things, consider whether additional provisions should be added, appended, or removed. A primary goal of the periodic review shall be to evaluate whether proven technological advances that would further reduce impacts of Oil Operations on neighboring land uses should be incorporated into the provisions of this Ordinance. *[This needs to be included as part of the Plan or Program(s) reviews]*
  2. Each review shall include a report by the Community Development Director, which shall be prepared after public notice and opportunity for public comment. The report shall include a comprehensive analysis of the effectiveness of the provisions of this Ordinance, and shall review and consider enforcement activity, operational records, and any other issues relating to Oil Operations. The report, at the option of the City, may include a survey of the residents near the Oil Field regarding noise, odors, vibrations, and other issues requested by the Community Development Director. A draft of the report shall be provided to the public, the Operator for review and comment. All comments on the draft report from the public, **stakeholders**, and the Operator shall be submitted to the Community Development Director in writing and will be considered, if timely received, before the report is finalized. The final report shall include a recommendation as to whether the Community Development Director should prepare proposed amendments to this Ordinance for submission to the City Council.
  3. At the discretion of the Community Development Director, reviews of this Ordinance may be conducted more frequently than every five years. Without limiting such discretion, the Community Development Director shall consider whether an early review should be undertaken if more than three material violations occur within any 12-month period.
  4. The initial review shall occur no sooner than three years and no later than five years after the Effective Date, unless the Community Development Director determines that such initial review shall occur at an earlier time pursuant to Subsection 3 above.

## SECTION XX CITY FIELDS

*The Ordinance shall apply to all existing and future fields, units, pools, plays, and/or areas within the City and shall not be limited to only the existing portion of the Inglewood Field beneath the City.*

*Furthermore, the future and existing fields shall include all areas with sedimentary rocks containing any hydrocarbons above the intact and unweathered igneous and metamorphic rocks beneath the sedimentary rocks.*

### A. The Plan

*The Plan shall apply to all existing fields and any future designated fields within the City boundaries. The Plan must include an inventory and compilation of all then currently known and accessible geological and petroleum information within and beyond the then known field(s). After the initial submittal, periodical updates shall be made as a minimum every five years and before any new field, unit, or area is proposed within the City's boundaries.*

**Designated Field or Unit  
Areas, Pools, and Zones**



B.

**SECTION XX CITY WELLS**

**SECTION 7. CONDITION COMPLIANCE ~~ELEMENT PLAN~~ (CCE, Part of PROGRAM).**

- A. The Operator shall prepare a **Condition Compliance Element Plan** that details how and when measures will be implemented to ensure effective implementation of all requirements of this Ordinance. ~~Within 30 days~~ ~~As part of the approval of each~~ ~~Annual Petroleum Program Drilling Plan~~, the Operator shall submit a **draft CCE Condition Compliance Plan** to the Community Development Director for review and approval **along with the pertinent Program and shall update the CCE as needed for the approved Program within 15 days of approval.** The following provisions ~~shall~~ ~~also~~ be addressed:
1. A detailed description of the steps the Operator shall take to assure compliance with all provisions of this Ordinance, including but not limited to, all of the monitoring programs for noise, vibration, odors, etc., called for by this Ordinance. The Operator shall fully comply and shall ensure that all employees and contractors fully comply with all provisions of the approved **CCE Condition Compliance Plan**.
  2. All timelines and review procedures identified in the ~~CCE-Condition Compliance Plan~~. If specific timelines cannot be met as approved, the Operator shall not proceed until it has reached an agreement with the City on the best approach for implementing a requirement of this Ordinance or the Condition Compliance Plan.
  3. Updates as necessary and submitted to the Community Development Director for approval. The Operator shall respond to any request for additional information within 30 days of receiving such request, unless extended by the City.
  4. Monitoring of ~~the CCE operations~~ ~~Compliance~~, at the City's discretion and on a project-by-project basis as the City may require the Operator to fund one or more persons to monitor compliance with this Ordinance (hereafter "On-Site Monitor"). The number of On-Site Monitors shall be determined by the City Council and shall take into account the scope of the **pertinent Program and Permit(s)** ~~project~~. The On-Site Monitor(s) shall be selected by and shall report to the Community Development Director. The responsibilities of the On-Site Monitor(s) shall include:
    - a. On-site, day-to-day monitoring of construction or drilling and re-drilling activities as determined by the City;
    - b. Ensuring the Operator and all employees, contractors and other personnel has knowledge of and are in compliance with all applicable provisions of this Ordinance;
    - c. Evaluating the adequacy of drilling and/or construction measures, and proposing improvements to the Operator and their respective contractors, and the City;
    - d. Requiring correction of activities that are in violation of any provision of this Ordinance or are determined to be unsafe or dangerous conditions; and
    - e. Reporting to and maintaining prompt and regular communication with the various City agencies with oversight responsibility at the project site or Oil Field(s), other appropriate agencies, such as DOGGR and SCAQMD, and with the Operator and personnel responsible for Operator's contractor performance and compliance.
- I. **Other Agency ~~DOGGR~~ Records.** Operator shall provide to Community Development Director copies of all documents submitted to DOGGR regarding the Oil Field and any wells related thereto.

**SECTION 10. CONSTRUCTION AND GRADING PERMITS.**

Operator shall be required to obtain the following construction and grading permits:

- A. A construction permit for the erection of any structure on the permitted premises. Plans of any permanent structure to be constructed must be submitted to the Community Development Director and City's Building Safety Division prior to a construction or grading permit being issued.
- B. A grading permit from the City's Department of Public Works for all grading, except as defined in

the Grading Guidelines as adopted by the Los Angeles County Department of Public Works. Grading design and grading plan preparation shall conform to the requirements of the Los Angeles County Grading Guidelines. A site specific geotechnical investigation and hydrologic analysis may be required by the City or as described in Sections 15.14.115.B and 15.14.130, respectively.

- C. The permits required by this Ordinance are in addition to any other applicable permits required by the CCMC, including, but not limited to, building, electrical, fire and public works permits.

## SECTION AA OPERATING FACILITIES, OPERATIONS, AND STANDARDS

### SECTION 11. OPERATING STANDARDS.

- A. General.** The drilling, operation and maintenance of any well or related facilities, and all other *well and field* operations of the Operator shall at all times be carried on in a lawful manner, in accordance with modern approved methods and practices, which protect the public health and safety, the natural resources of the City, and the environment.
- B. New Technology.** Proven feasible technological improvements which are capable of reducing the environmental impacts of drilling, redrilling, reworking, maintenance, and operations to surrounding land uses, shall be promptly implemented to the extent such technology is commercially available. As part of the Annual Petroleum Program Drilling Plan, in accordance with Section 31, Operator shall submit a **Clean Technology Assessment** identifying technologies which have been achieved in practice in North America which are capable of reducing impacts in the following areas: air quality (including without limitation electrified and natural gas-powered drill rigs, green-completion, fugitive emissions collections, etc.), groundwater quality, spill and upset prevention and containment, odors, aesthetic, noise and climate change. Such technology shall be implemented in connection with wells identified in the Annual Petroleum Program Drilling Plan unless Operator demonstrate the technology is not technologically feasible or is not commercially available.
- C. Compliance with Laws and Regulations.** The Operator shall comply with all applicable laws, regulations, and standards of any local, state or federal agency or of API related to drilling, redrilling, reworking, maintenance, and production operations. In the event there are any inconsistencies between any such regulations and the provisions of this Ordinance, the more stringent requirement shall apply.
- D. Nuisance Requirements.** In the event the Oil Operations or any related work on the permitted surface and subsurface premises is determined by the Community Development Director to be a nuisance as defined in Chapter 9.04 of the CCMC, the City shall provide 18-hours' notice to the Operator that Oil Operations shall be suspended in a safe and controlled manner and such suspension shall continue for a length of time which is reasonable under the circumstances. Notwithstanding the foregoing, the City may require Oil Operations to be suspended immediately in the event that the City determines that such operations are causing an imminent endangerment to public health or safety or to environmental quality.
- E. Maintenance of Premises.** Operator shall keep and maintain all of the permitted premises in a clean, healthy and sanitary condition and environmentally compliant condition in a manner consistent with the type of operation authorized, and shall fully comply with all requirements of City ordinances and regulations with respect to property maintenance.

### SECTION 14. MAJOR FACILITIES PROHIBITED.

No Major Facilities shall be constructed within the City of Culver City. Construction activities shall be limited to those necessary for new production and **injection** wells and associated equipment (tanks, pipes, piping components, etc.) that are needed to support access to such wells and equipment, or as needed for emergency construction activities, such as repairs after earthquakes, floods, or landslides or other catastrophic events.

### SECTION 13. SUMPS AND RESERVOIRS.

- A.** It shall be unlawful for any person, firm or corporation to construct or cause to be constructed, to use or cause to be used, or to maintain or cause to be maintained, any permanent earthen-based sump or

reservoir hereafter constructed or erected, for the purpose of storing petroleum or flammable liquids, unless such sump is constructed as follows:

- ~~1. All earth sumps maintaining a fluid level more than one foot above the natural ground level at the lowest point shall have the inner sides entirely lined with not less than three inches of concrete or masonry construction;~~
- ~~2. The earth filled walls of such sumps or reservoirs shall be constructed in such manner as will meet the requirements of the Public Works Director/City Engineer;~~
- ~~3. The level of the fluid of such sumps or reservoirs shall not be allowed or permitted or suffered, regardless of cause thereof, to rise above a point 12 inches below the lowest top point of the enclosing walls of each sump or reservoir, and such point shall be marked with a gauge or marker at least four inches square, located at a point accessible for gauging, and the top of such gauge shall not be below the top of each sump or reservoir; and~~
- ~~4. Temporary sumps may be constructed, maintained and used during the period of drilling a well for the normal purposes of mud usage or storage, walls of which shall be of substantial earth construction, and the fluid level of which shall not be allowed to rise above a point six inches from the top.~~

- ~~B. The construction of all sumps or reservoirs shall be prohibited meet the requirements of the Building Official.~~
- ~~C. It shall be unlawful for any person, firm or corporation to set fire to, or to burn, or to cause or permit any other person to set fire to or to burn, any petroleum or liquid with petroleum contents in any sump hole, open pool or reservoir, or to permit oil so situated on premises belonging to such, person, firm or corporation, to be burned.~~
- ~~D. All sumps are prohibited and only appropriate steel tanks shall be permitted for the containment and temporary storage of oils and/or oil water before removal to an appropriate regulated site. that are used, installed, or maintained for use in connection with any well, and which have not been used for 90 days for the operation of the drilling, redrilling, reworking or maintenance of such well or any other well in the vicinity, shall be cleaned out, and all oil, rotary mud, and rubbish removed.~~
- ~~E. Each sump of any depth shall have a fence erected and continuously maintained that encloses the sump. This provision shall not apply to sumps that are attended at all times while drilling, redrilling, reworking and maintenance operations.~~

**SECTION 15. TANKS.**

- ~~A. **API Standards.** All tanks and appurtenances shall be temporary (<60 days) and constructed in accordance with the API Standards for temporary tanks Nos. 12-B, 12-D, 12-F, API 650, API 620 and as amended, and in accordance with current Fire Code, DOGGR, California Division of Industrial Safety, EPA Standards, applicable provisions of Title 14 of the California Code of Regulations Section 1774, and applicable CalARP Program requirements.
 
  1. The provisions of this Section shall not apply to drums and/or liquid totes constructed in accordance with the regulations of the Interstate Commerce Commission.
  2. The venting provisions shall not apply to any container of 110 gallons capacity or less; providing, however, that whenever it is essential for fire safety, vents shall be maintained on containers which are permanently installed.
  3. No unroofed tanks shall be used.~~
- ~~B. **Compliance with California Fire Code.** Above ground tanks shall be installed and maintained in accordance with the provisions of the California Fire Code and other applicable regulations, including foam fire protection systems when required by the Fire Chief.~~
- ~~C. **Vapor Recovery.** Oil, wash, and produced water tanks shall be vapor tight and shall be equipped with a vapor recovery system.~~
- ~~D. **Tank Piping, Valves, Fittings, and Connections.** All new tank piping, valves, fittings, and connections including normal and emergency relief venting, shall be installed and maintained in accordance with current API standards to the satisfaction of SCAQMD and DOGGR.~~

~~**E. Leak Detection and Control Plan.** Within 180 days of the Effective Date, or at such later date as may be approved by the City's Fire Chief, for good cause shown, the Operator shall design, implement, and comply with a Leak Detection and Control Plan, to be submitted to and approved by the Fire Chief, for controlling and detecting tank bottom leaks on all existing and new tanks. The Operator may use a combination of methods including but not limited to diversion walls, dikes, tank foundations of concrete or gravel, and a tank bottom leak detection system in compliance with Title 14 of the California Code of Regulations Section 1773, or subsequently enacted state regulations regarding tank bottom leaks. The Operator shall document its approach for identifying, monitoring, and correcting tank leaks and submit this information to the Community Development Director and Fire Chief as specified in the **Drilling Use Permit**.~~

~~**F. Baseline Inspection.** Prior to the operation of a newly constructed tank(s), an internal inspection of the tank(s) shall be conducted by the Fire Chief to establish baseline.~~

~~**G. Dikes and Walls Surrounding Storage Tanks.** The Operator shall construct and maintain dikes or walls around all storage tanks, clarifying tanks, or tanks used in connection with the production of oil. Dikes and walls shall be constructed and maintained to meet the standards of the NFPA and current DOGGR requirements. (See also Section 18, Dikes and Retaining Walls, and Section 20, Safety and Risk of Upset)~~

~~**H. Pressure Monitoring and Venting.** See Section 21.E.~~

**SECTION 16. LOCATION OF TANKS.**

~~**A.** Oil storage shall be limited to a maximum of 5,000 barrels for each producing Well. A single tank shall not exceed 5,000 barrels in capacity.~~

~~**B.** Storage tanks shall be located in conformity with the following table and as per NFPA 30 requirement, whichever is more stringent, with measurements to be taken from the shell of the tank. Where the configuration of the property will not permit the spacing requirements as identified on the following table, deviations from such requirement may be made on the written approval of the City's Community Development Director, Building Official and Fire Chief.~~

<b>Tank Capacity in 42-Gallon Barrels</b>	<b>Distance from Nearest Tank</b>
1 to 266	2 feet
267 to 720	3 feet
721 to 1,600	5 feet
1,601 to 2,854	6 feet
2,855 to 5,000	7 feet

~~**C.** No activity that creates an open flame shall be conducted within 100 feet of a storage tank containing flammable liquids. Where the area under ownership or control of the person, firm or corporation proposing to install or maintain any such tank does not permit the 100 foot spacing, as specified above, the location of any such tank shall be designated by the Building Official and Fire Chief except that in no case shall the distance between any tank containing petroleum or any products, or any flammable liquids and a steam boiler or open flame be less than 25 feet.~~

~~**D.** No new storage tank shall be constructed closer than 500 feet from any Developed Area, or closer than 200 feet from a public road. No building shall be constructed within 50 feet of any oil storage tank. Whenever feasible, new tanks will be located such that they are not visible from residences, parks or other public areas. No tanks will be placed on ridgelines.~~

**SECTION 18. DIKES AND RETAINING WALLS.**

- A. It shall be unlawful for any person to use or cause to be used, or to maintain or cause to be maintained, any surface storage tank or containers located outside of any building, and in which flammable liquids, petroleum or its liquid byproducts, or liquefied petroleum gases are, or may be, placed or stored, unless such existing surface storage tank or container is surrounded by impervious lined or coated masonry or reinforced concrete walls, or dikes, so designed, constructed and maintained as to confine at least 110 percent capacity of the largest existing tank or container within such masonry or reinforced concrete walls or dikes consistent with NFPA 30 requirements.
1. Such walls or dikes shall be increased for each additional tank or container of smaller capacity located within the same vicinity by 10% of the capacity of such additional tank or container.
  2. Such walls or dikes shall not be required for tanks of less than 2,000 gallons capacity, except where in the opinion of the Fire Chief and Public Works Director/City Engineer a hazardous condition exists.
- B. Any existing surface storage tank or container located inside of any building and in which flammable liquids are, or may be, placed or stored shall be surrounded by masonry or reinforced concrete walls or dikes so designed, constructed, and maintained as to confine the total capacity of all such tanks or containers within such masonry or reinforced concrete walls or dikes.
- C. See also Section 20.E, Secondary Containment.

**SECTION 17. PIPING AND ELECTRICAL EQUIPMENT.**

- A. The Operator shall prepare, submit for approval, maintain and implement a **Pipeline Management Plan** for the Community Development Director that complies with the California Fire Code and DOGGR regulations.
- B. All pipe and pipe fittings, including valves, gauge glass fittings, and other similar appurtenances used in connection with any well and/or Oil Field equipment or other facilities ~~derrick, loading rack or tank~~, shall be designed, installed and maintained to safely withstand the pressure to which they may be subjected.
1. All valves directly controlling the flow of flammable liquids and gas from wells, equipment, facilities and existing tanks shall be of the rising stem or self-indicating type, or other type commonly used in Oil Operations, which is equally adequate or efficient. This provision shall not apply to valves less than two inches in diameter.
  2. Gauge glass fittings for tanks and for containers, sample cocks and other similar fittings intended or used for the purpose of drawing off flammable liquids or gases from tanks and/or containers, in any quantity shall be constructed of some metal having a melting point equal to steel or higher. Brass fittings shall not be used.
  3. Gauge glass fittings shall be equipped with automatic ball checks.
- C. Any system of piping connected to a positive acting pump shall be equipped with an automatic pressure relief valve or suitable means to relieve the pressure of any such system and prohibit such pressure from exceeding 125% of the normal safe working pressure of the piping system or pump, whichever is the lower pressure.
- D. All electrical equipment proposed to be used or used in connection with any permit issued hereunder shall conform to the State Electrical Safety Orders of the Industrial Accident Commission, current California Electrical Code and DOGGR regulations.
- E. See also Section 20.E.2, Secondary Containment.

**SECTION 38. PUBLIC ROADWAYS AND PRIVATE ROAD CONSTRUCTION**

- A. **Road Transport - Deliveries and Take-Aways.** Within 60 days of the Effective Date, the Operator shall prepare and submit to the Community Development Director for review and consideration for approval the Operations Transportation Plan including private onsite roads and road transport through the City to and from Oil Operations facilities and activities

In the event deliveries of new drilling and production equipment or the removal of old derelict or abandoned equipment and facilities the transport vehicles would use approved Plan designated City roads; use of oversize vehicle trips shall be approved by the Public Works Director/City Engineer prior to transport and based on the approved Plan. The Drilling Project traffic shall be prohibited during peak hours and from residential roadways at all time to the maximum extent possible.

- B. Construction of Private Roads.** Roads and other excavations shall be designed, constructed, and maintained to provide stability of fill, minimize disfigurement of the landscape, prevent deterioration of vegetation, maintain natural drainage, and minimize erosion. Prior to construction of any new road, the Operator shall submit notices of such to the Public Works Director/City Engineer for review and comparisons with the approved Transportation Plan. The Operator shall thereafter comply with all provisions of the approved private road use and construction elements of the Plan. All new private access roads leading off or to any surfaced public street or highway shall be paved with asphalt or concrete not less than three inches thick for the first 50 feet of said access road from the public street or highway.

Earthen Ditches

Detention Basins

**SECTION 28. STORAGE OF HAZARDOUS MATERIALS AND OIL FIELD WASTE REMOVAL.**

- A. Storage and Management of Hazardous Materials.** The Operator shall comply with all provisions of Subchapter 9.03.100, et seq. of the CCMC relating to Hazardous Materials Disclosure Requirements, Business Plans, and Inspections.
  - 1. The Operator shall prepare, update, and submit for approval a **Oil Operations Materials and Waste Management Plan** either as a separate plan or combined as a separate element in another related plan. The Plan shall include but not be limited to sources and storage of hazardous materials and oily waste generation, conservation and reuse measures, recycling measures, and treatment/disposal of all wastes generated by Oil Operations
  - 2. Hazardous materials shall be stored upon delivery to any Oil Operations in the Oil Field
  - 3. Hazardous materials shall be conveyed and processed before use according
  - 4. Hazardous materials during use shall be managed
- B. Waste Discharge and Collection.** No drilling, redrilling, reworking or maintenance waste (“Drilling Waste”) shall be discharged into any sewer, storm drain, irrigation systems, stream, creek, street, highway or drainage canal. No Drilling Waste shall be discharged on the ground, except for the proper use of active drilling sumps and mud pits.
  - 1. Drilling muds and other materials directly related to drilling but not completion or production
  - 2. Drilling Waste shall be discharged into portable steel tanks compliant with API standards and collected in portable steel bins compliant with US Department of Transportation standards. All Drilling Waste shall be disposed of in compliance with all applicable City, regional, State, and Federal rules and regulations.
  - 3. Drilling Waste materials, that are not intended to be injected into a Class II Well as permitted by DOGGR, shall be removed from the Oil Field no later than 30 days following the completion of the drilling operation that generated the waste.
  - 4. Drilling Waste materials, that are intended to be injected into a Class II Well as permitted by DOGGR, shall be removed from the Oil Field no later than 30 days following conclusion of the drilling, completion, rework, and production operations that generated the waste.
- C. Recycling Plan.** Within 180 days of the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown, the Operator shall prepare a Recycling and Removal Plan to be prepared, reviewed, and considered for approval by the Public Works Director/City Engineer and shall identify how recycling will be incorporated into its operations, including debris generated during construction, all Oil Operations; use mulching, composting, and grass-cycling on landscaped areas; design and allocate recycling collection and storage space; create an employee participation recycling program; and conduct employee and neighborhood education through a series of brief educational sessions to demonstrate how employees and neighbors can further contribute to

recycling and conservation.

- D. The Removal Element of the Plan shall identify methods of loading, transport, and ultimate receiving locations for all waste from the Oil Field.

**BioFarms**

**MINOR FACILITIES**

**SECTION 19. TOILET AND WASH FACILITIES.**

The Operator shall be required to provide a portable toilet for temporary employees on the permitted premises, within 200 feet of the work site for any Oil Operation. Sanitary toilet and washing facilities shall be installed at any site where employees are permanently stationed. Temporary and permanent facilities shall be maintained in a clean and sanitary condition at all times and appropriately screened from public view.

**SECTION 36. LIGHTING.**

Outdoor lighting shall be restricted to only those lights that are required by the CCMC for the lighting of building exteriors, drilling, and redrilling rigs and for safety and security needs. In addition, the Operator shall comply with the following provisions:

- A. Screening.** All new point lighting sources within the Oil Field shall be screened and directed to confine direct rays to the Oil Field and to prevent offsite spillover of lighting to surrounding residential, recreational, other Sensitive Developed Areas, and public areas.
- B. Lighting Plan.** A detailed **Lighting Plan** shall be prepared for each new permanent structure and for portable equipment and facilities located for more than 15 days and submitted to the Community Development Director for review and consideration. No work may be commenced on such permanent structure until the Lighting Plan has been approved by the Community Development Director. The Lighting Plan shall include any measures requested by the Community Development Director

**SECTION 37. LANDSCAPING.**

- A. Landscaping Plan.** Within 180 days of the Effective Date or at such later date as may be approved by the Community Development Director, for good cause shown, Operator shall submit a **Landscaping Plan** to be reviewed and approved or conditionally approved by the Community Development Director. The Plan shall be designed to: (1) specify landscaping and fencing that will be used to visually screen the Oil Operations and related equipment and facilities from Developed Areas or adjacent public streets; (2) improve the visual appearance of the existing Oil Field; and (3) ensure compatibility with the surrounding environment. The Plan shall be reviewed by the Operator on an annual basis to determine if modifications to the Plan are required and report its findings to the Community Development Director. Such findings and proposed modifications to the Plan shall be submitted to the Community Development Director for review and considered for approval. Operator shall comply with all provisions of the approved Plan.
- B. Irrigation.** Landscaping shall be irrigated and maintained to ensure that landscaping provides sufficient screening.
- C. Inspection and Maintenance.** All landscaping and vegetation shall be routinely inspected (on at least a monthly basis) and maintained in a neat, clean and healthful condition, including proper watering, pruning, weeding, removal of litter, fertilizing, and replacement of plants as needed. Litter shall also be removed on a regular basis when necessary.

**SECTION 39. SIGNS.**

- A. Perimeter and Entrance Identification Signs.** Identification signs, at intervals acceptable to the Community Development Director, shall be posted and maintained in good condition along the

Outer Boundary line fence, along the fences adjoining the public roads that pass through the Oil Field and at any entrance to the Oil Field. Each sign shall prominently display current and reliable emergency contact information that will enable a person to promptly reach, at all times, a representative of the Operator who will have the expertise to address any potential problem and recommend a corrective course of action. Each sign shall also have the telephone number of the Community Development Department and the number of SCAQMD that can be called if odors are detected. Identification signs shall be installed within 60 days of the Effective Date or at such later date as may be approved by the Community Development Director, for good cause shown.

- B. **Rigs and Derricks.** A sign shall be placed on each derrick that displays the name and number of the well being drilled or operated and the name of the Operator. Letters of the sign shall be at least two inches in height and fully visible from two opposite sides of the derricks.
- C. **Fire Prevention.** The Operator shall post the permitted premises with signage as required by the Fire Chief, in accordance with the California Fire Code, including, but not limited to, appropriate "No smoking" signs, with letters at least four inches in height.
- D. **Other Required Signs.** All identification signs, warning signs, no trespassing signs, and other signs required by City, regional, State and Federal regulations shall be properly posted and maintained in all required locations and in good condition.
- E. **Well Identification Signs.** Per California Fire Code, well identification signs shall include name of the owner or Operator, the well name and well number, and a telephone number where a responsible party can be reached at any time. Each well identification sign shall be posted and maintained in good condition at each well location to the satisfaction of the Fire Chief.
- F. **No Littering Signs.** "No littering" signs shall be prominently posted and maintained in good condition on all Oil Field entrance gates. Such signs shall be installed within 60 days of the Effective Date or at such later date as may be approved by the Community Development Director, for good cause shown.
- G. **City Approval.** The location, type face, design and quality of all signs shall be subject to approval by the Community Development Director. All such signs shall be maintained in good condition and replaced when necessary.

**SECTION 31. CONSOLIDATION AND ANNUAL DRILLING, REDRILLING, Well Abandonment, and Well Pad Restoration Plan.**

- A. **Consolidation.** The Operator shall consolidate **well drilling operations** within the Oil Field to reduce impacts to surrounding land uses.
- B. **Annual Drilling, Redrilling, Well Abandonment, and Well Pad Restoration Plan.** The Operator shall develop an Annual Drilling, Redrilling, **Well Abandonment and Well Pad Restoration Plan**, (the "**Annual Drilling Plan**"). The **Annual Drilling Plan** shall be submitted each year of the **Comprehensive Drilling Plan** period for review and approval by the Community Development Director. The **Annual Drilling Plan** shall describe all drilling and related activities and provide a schedule to avoid over concentration of such activities in any particular year and in any one area. No drilling, redrilling or abandonment activity may be commenced, nor shall any **Drilling Use Permit** be issued for any drilling or redrilling activity, unless it is described in an approved **Annual Drilling Plan** or an amendment thereto. The **Annual Drilling Plan** shall include the following:
  1. The maximum number of wells to be drilled or redrilled on an annual basis, which shall be no more than two wells per year for the first two years; if in any year thereafter, the Community Development Director determines that this Ordinance is protective of health, safety, and general welfare of the public, then three wells per year may be drilled, until such time that the Community Development Director determines otherwise;
  2. No more than one drilling rig in place at any one time;
  3. Approximate location of all wells proposed to be drilled or redrilled. This information shall also include proposed and existing wells in the Los Angeles County portion of the Inglewood Oil Field to the



extent such wells may result in overconcentration of impacts to Culver City neighborhoods;

4. Approximate location of all proposed new well pads, including their size and dimensions;
  5. Estimated target depth of all proposed wells and their estimated Bottom Hole locations;
  6. A narrative of the steps that have been taken to maximize use of existing well pads, maximize use of redrilled wells, and maximize the consolidation of wells. Where well consolidation is not proposed, sufficient detail, as determined and requested by the Community Development Director, shall be provided for the City to review the extent to which well consolidation is not technically feasible and commercially reasonable;
  7. Location of all proposed well Abandonments in accordance with DOGGR integrity testing program of idle wells;
  8. Location of all well pads proposed to be abandoned and restored;
  9. A proposed schedule and phasing of the drilling, redrilling, well abandonment, well pad abandonment, and restoration activities;
  10. A topographic vertical profile showing proposed location of new wells that reflects local terrain conditions and that addresses the potential visibility of existing and proposed wells and other production facilities from areas outside the Oil Field;
  11. Location of specific landscaping and/or fencing used to visually screen the Oil Operations and related equipment from residential, recreational, and institutional land uses or adjacent public streets, and to improve the visual appearance of existing Oil Field operations. If no landscaping is proposed, an explanation as to the infeasibility of screening particular operations and/or equipment;
  12. A description of all grading that will be conducted, which shall be considered the **annual grading plan** for the Oil Field;
  13. Inventory of wells within drilling setbacks, see Section 21.J;
  14. Availability and feasibility of the use of natural gas-powered drill rigs or other technology capable of reducing environmental impacts (See Clean Technology Assessment, at Section 31.B); and
  15. Identify and report on condition of all existing wells within 1,000 feet of any proposed **injection** wells.
- C. Deep-, Mid-, and Shallow-Zone Supplements.** As described in Section 21.J.2, the Deep-, Mid-, and Shallow Zone(s) Supplement(s) to the **Annual Drilling Plan** may be required for all Deep-, Mid-, and/or Shallow Zone Wells where the Top Hole is within 800 feet of a Sensitive Developed Area. The Supplements shall include a Study and Supplement of the technical feasibility of Slant or Directional Drilling to locate the Top Hole of any such well more than 800ft away from any Sensitive Development Area. The Study shall justify the proposed surface location, and provide sufficient detail regarding the feasibility of locating the Top Hole away from a Sensitive Developed Area to mitigate potential impacts while still reaching the targeted Bottom Hole location. The Operator shall provide the Community Development Director with any additional information requested in order to complete review of the Supplement. If any information regarding Slant/Directional Drilling is confidential, the City will enter into an agreement with the Operator to protect such information. The Community Development Director shall review and consider Supplements within 45 calendar days of submission to the City. The Community Development Director shall either approve the plan or provide a list of supplemental information and/or deficiencies within the 45-day timeframe.

The Operator may drill any wells approved under the **Annual Drilling Plan** regardless of the status of the City's review of the Supplements. Similarly, the Operator may drill any wells approved under a Supplement regardless of the status of review and approval of the **Annual Drilling Plan**. Changes to well pad locations as a result of the review of the Supplements shall not require resubmittal of the **Annual Drilling Plan** or delay any drilling under the **Annual Drilling Plan**, beyond the time necessary to implement such changes.

## **DRILLING**

## **COMPLETION**

### **SECTION 32. HYDRAULIC FRACTURING.**

Hydraulic Fracturing is prohibited until DOGGR or the State Legislature adopts comprehensive regulations that

will adequately protect the public health and safety, the natural resources, and the environment and its quality in the City.

### SECTION 33. WELL REWORK, MAINTENANCE AND ABANDONMENT RIGS.

Commented [tmyl3]: NOT DERRICKS

- A. No more than two rigs used for drilling, re-drilling, reworking, maintenance and/or abandonment shall be present within the Oil Field at any one time, unless an emergency condition requires additional rigs.
- B. With the exception of emergencies, well reworking, maintenance and abandonment rig operations shall not be allowed after 7:00 p.m. or before 7:00 a.m., nor on Saturdays, Sundays or legal holidays.
- C. Rigs used for rework, maintenance and abandonment shall be removed from the Oil Field within seven (7) days following the completion of reworking, maintenance and abandonment operations unless the rig will be used on another well at the Oil Field within five (5) days.

### SECTION 35. WELL CELLARS.

All well cellars shall be inspected and reconstructed in accordance with the most current API standards and DOGGR requirements, whichever are more restrictive. In addition, the Operator shall comply with the following provisions:

- A. **Cellar Fluids.** Well cellars shall be kept free of all oil, water, or debris at all times. During drilling, re-drilling, reworking and maintenance, the cellar shall be kept free of excess fluids by a pump that discharges into a waste tank, mud pit, vacuum truck, or other approved disposal system.
- B. **Access to Multi-Well Cellars.** All multi-well cellars exceeding three feet in depth and 25 feet in length shall have two means of entrance and exit and an additional exit for every 50 feet in length thereafter. At least one means of entrance or exit for all multi-well cellars of 25 feet in length shall be a stairway constructed to California Division of Industrial Safety standards.
- C. **Single-Cellar Covers.** All single cellars shall be covered with open grating and have no openings larger than three inches at any point. Covers shall be capable of supporting vehicle weight or guardrails shall be erected to prevent vehicle access.
- D. **Cellar Ladder Openings.** All openings for ladders through grating shall be designed to allow exit from underside without obstruction and shall be kept free of storage of any type. Said openings shall not be less than 24 inches on either side.
- E. **Cellars Replacement Plan.** Within 180 days of the Effective Date, or at such later date as may be approved by the Community Development Director, for good cause shown, the Operator shall prepare and submit to the Cellars Replacement Plan and shall include in addition to others the following:
  1. An Inventory of all cellars, existing, abandoned, and buried and their current status.
  2. Standard cellar design and remediation program for existing active cellars and reabandonment of buried and abandon cellars.

### SECTION 41. OTHER STANDARDS.

- A. **Security.** All unmanned entrances to the Oil Field shall be equipped with sliding gates that shall be kept closed at all times except when authorized vehicles are entering or leaving the field. The Operator shall have a security guard on duty 24 hours per day.

*[Confused - Does not refer to well or clusters of wells. Impractical to have 24/7 guards on single well]*

- B. **Fencing.** All portions of the oil and gas drilling operations shall be enclosed with a fence compliant with DOGGR regulations codified at California Code of Regulations Title 14, Article 3, sections 1778 and 1779,

or as may be subsequently amended by the state. *[Only applies to drilling operations not to petroleum operations or*

C. **Storage of Equipment.** There shall be no storage of material, equipment, machinery or vehicles which are not intended for prompt use in connection with Oil Operations. Any equipment that is not intended for prompt use shall be removed from the Oil Field.

*[Undefined prompt and use of oil field]*

D. **Painting.** Within two years of the Effective Date, or at such later date as may be approved by the Community Development Director for good cause shown, all Oil Operations-related structures visible from public roadways and surrounding properties shall be painted or otherwise surfaced or textured with a color that is compatible with Developed Areas and has been approved by the Community Development Director. The painting or other surfacing of structures shall be maintained in good condition.

*[All sites within CC would be subjected to this requirement - modify to all need to be painted]*

## SECTION XX CONVENTIONAL AND UNCONVENTIONAL WELL/FIELD CONSTRUCTION AND RECONSTRUCTION

### EXPLORATORY

### PRODUCTION

### SECTION 48. INJECTION WELLS.

Existing **injection** Wells must comply with all DOGGR requirements, including sealing and casing integrity, prior to use. **Injection Wells** shall be properly Abandoned according to DOGGR requirements.

### SECTION 47. IDLE WELL TESTING AND MAINTENANCE.

The Operator shall comply with Title 14, Section 1723.9 of the California Code of Regulations regarding testing and maintenance of idle wells, or subsequently enacted state regulations regarding testing and maintenance of idle wells. The Operator shall carry out all additional tests, remedial operations, and mitigation measures required by DOGGR if any idle wells do not meet the test standards.

### MONITORING

## SECTION AA WELL AND FIELD ABANDONMENT AND REMOVAL - 40, 49, 50, 52

### SECTION 40. EQUIPMENT REMOVAL AND MAINTENANCE.

A. **Abandoned and Unused Equipment Removal Plan.** For projects within the Oil Field, within 180 days of the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown, the Operator shall submit an **Unused or Abandoned Equipment Removal Plan** to the Public Works Director/City Engineer for review and approval. The Plan shall include an inventory of all unused or abandoned equipment identifying all parts, equipment and machinery that is no longer in service and is not intended for prompt use in connection with Oil Operations. All existing facilities that have reached the end of their useful economic life shall be properly decommissioned and removed from the Oil Field within one year from the Effective Date and, thereafter, all new facilities that have reached the end of their useful economic life shall be properly decommissioned and removed from the Oil Field within one year. The Operator shall file a quarterly compliance report to the Public Works Director/City Engineer. Equipment and materials not necessary to Oil Operations as identified by the Public Works Director/City Engineer shall be promptly removed from

view of Sensitive Developed Areas.

- B. Revegetate Equipment Removal Areas.** Areas not slated for future use, as identified in the **Annual Drilling, Redrilling, Well Abandonment, and Well Pad Restoration Plan**, shall be restored and revegetated within 90 days of termination of use, unless such restoration and revegetation would interfere with fire safety or access to Oil Operations, as determined by the Fire Chief.
- C. Equipment Maintenance.** All actively-used equipment, improvements, facilities, and other personal property or fixtures shall be maintained in good condition to the satisfaction of the Public Works Director/City Engineer.

#### SECTION 49. ABANDONED WELL TESTING.

The Operator shall conduct quarterly testing of abandoned wells for hydrocarbon vapor leaks. The first quarterly testing shall be completed within 120 days of the Effective Date. The procedures and equipment for such testing shall be reviewed and approved by the Public Works Director/City Engineer. Abandoned wells that are found to be leaking hydrocarbons shall be reported to the Public Works Director/City Engineer and

DOGGR within 12 hours of the abandoned well testing. DOGGR shall determine if the well needs to be re-abandoned. If directed by DOGGR, the Operator shall re-abandon the well in accordance with DOGGR rules and regulations. Any abandoned well that is not found to be leaking hydrocarbon vapors for eight consecutive quarters (after a hydrocarbon leak is found), shall thereafter be tested on annual basis and such test results shall be submitted to the Public Works Director/City Engineer.

#### SECTION 50. WELL AND WELL PAD ABANDONMENT.

Wells which remain idle for five years shall be subject to review by the Community Development Director, Fire Chief, and DOGGR to determine if the well should be abandoned, unless Operator can show that the well will go back into production within >>>> 180 days. Idle wells shall be abandoned within 180 days of receiving an order from the Fire Chief or DOGGR to abandon. If DOGGR orders the Operator to plug and abandon any wells, the Operator shall commence promptly and proceed diligently with the plugging and Abandonment operations in accordance with DOGGR rules and regulations and the terms of the DOGGR permit to plug and abandon the well. The Operator shall also file DOGGR form titled "Notice of Intention to Abandon/Re-Abandon a Well" with the Fire Chief and the Community Development Director. Well Abandonment may commence once all necessary permits and approvals are obtained. All wells abandoned at the Oil Field shall utilize a total of 150-foot cement surface plug.

If the well pad associated with the well Abandonment does not contain other production, **injection**, or idle wells, and will not be used for future drilling, then the Operator shall promptly abandon the well pad consistent with the following provisions:

- A. Closure of Sumps.** The Operator shall clean out all sumps, cellars, and ditches, and level and fill all sumps and depressions pursuant to DOGGR requirements. If sumps are lined with concrete, bottoms and walls shall be broken up and removed. Sumps shall be closed in accordance with RWQCB and California Department of Toxic Substances Control requirements.
- B. Well Pad Site Cleanup.** The Operator shall leave the site entirely free of oil, rotary mud, oil-soaked earth, asphalt, tar, concrete, litter, debris, and other substances to the satisfaction of DOGGR and the Community Development Director, and in compliance with federal requirements.
- C. Contaminated Materials.** All contaminated soils and materials within the well pad boundaries shall be removed and treated or disposed of in accordance with all local, regional, State, and Federal regulations.
- D. Well Pad Revegetation.** The well pad shall be revegetated following the requirements identified in the revegetation recommendations of the Special Status Species and Habitat Protection Plan to the satisfaction of the Community Development Director.

**SECTION 52. OIL FIELD ABANDONMENT PROCEDURES.**

Within 180 days prior to permanent facility shut down, the Operator shall submit an Abandonment Plan to DOGGR and shall submit to the Community Development Director for review and approval a timeline for facility removal, site assessment, and remediation as necessary. The Operator shall begin abandonment of the site no later than 20 days after the Director's approval of the timeline, and shall provide to the Director quarterly updates on the abandonment process until such time as the Oil Field is abandoned and remediated. Immediately following permanent shut down of the facility, all facilities within the Oil Field shall be removed; the site shall be recontoured and revegetated in accordance with a City-approved plan within one year of shutdown. The Operator shall post a performance bond in an amount determined by the Community Development Director to ensure compliance with all provisions of this Section and the Operator and landowners shall continue to pay property taxes at the rates assessed during Oil Operations until all site restoration work has been fully completed, as determined by the Community Development Director. The Operator, Operator and landowners shall be jointly and severally liable for compliance with this Section. A partial closure of the facility, if feasible, shall be permitted as an interim step to full closure.



~~to and approved by the Fire Chief, for controlling and detecting tank bottom leaks on all existing and new tanks. The Operator may use a combination of methods including but not limited to diversion walls, dikes, tank foundations of concrete or gravel, and a tank bottom leak detection system in compliance with Title 14 of the California Code of Regulations Section 1773, or subsequently enacted state regulations regarding tank bottom leaks. The Operator shall document its approach for identifying, monitoring, and correcting tank leaks and submit this information to the Community Development Director and Fire Chief as specified in the Drilling Use Permit.~~

~~**F. Baseline Inspection.** Prior to the operation of a newly constructed tank(s), an internal inspection of the tank(s) shall be conducted by the Fire Chief to establish baseline.~~

~~**G. Dikes and Walls Surrounding Storage Tanks.** The Operator, shall construct and maintain dikes or walls around all storage tanks, clarifying tanks, or tanks used in connection with the production of oil. Dikes and walls shall be constructed and maintained to meet the standards of the NFPA and current DOGGR requirements. (See also Section 18, Dikes and Retaining Walls, and Section 20, Safety and Risk of Upset)~~

~~**H. Pressure Monitoring and Venting.** See Section 21.E.~~

**SECTION 16. LOCATION OF TANKS.**

~~**A.** Oil storage shall be limited to a maximum of 5,000 barrels for each producing Well. A single tank shall not exceed 5,000 barrels in capacity.~~

~~**B.** Storage tanks shall be located in conformity with the following table and as per NFPA 30 requirement, whichever is more stringent, with measurements to be taken from the shell of the tank. Where the configuration of the property will not permit the spacing requirements as identified on the following table, deviations from such requirement may be made on the written approval of the City's Community Development Director, Building Official and Fire Chief.~~

<b>Tank Capacity in 42-Gallon Barrels</b>	<b>Distance from Nearest Tank</b>
1 to 266	2 feet
267 to 720	3 feet
721 to 1,600	5 feet
1,601 to 2,854	6 feet
2,855 to 5,000	7 feet

~~**C.** No activity that creates an open flame shall be conducted within 100 feet of a storage tank containing flammable liquids. Where the area under ownership or control of the person, firm or corporation proposing to install or maintain any such tank does not permit the 100 foot spacing, as specified above, the location of any such tank shall be designated by the Building Official and Fire Chief except that in no case shall the distance between any tank containing petroleum or any products, or any flammable liquids and a steam boiler or open flame be less than 25 feet.~~

~~**D.** No new storage tank shall be constructed closer than 500 feet from any Developed Area, or closer than 200 feet from a public road. No building shall be constructed within 50 feet of any oil storage tank. Whenever feasible, new tanks will be located such that they are not visible from residences, parks or other public areas. No tanks will be placed on ridgelines.~~

**SECTION 13. SUMPS AND RESERVOIRS.**

~~**A.** It shall be unlawful for any person, firm or corporation to construct or cause to be constructed, to use or~~

cause to be used, or to maintain or cause to be maintained, any permanent earthen-based sump or reservoir hereafter constructed or erected, for the purpose of storing petroleum or flammable liquids, unless such sump is constructed as follows:

- ~~1. All earth sumps maintaining a fluid level more than one foot above the natural ground level at the lowest point shall have the inner sides entirely lined with not less than three inches of concrete or masonry construction;~~
- ~~2. The earth-filled walls of such sumps or reservoirs shall be constructed in such manner as will meet the requirements of the Public Works Director/City Engineer;~~
- ~~3. The level of the fluid of such sumps or reservoirs shall not be allowed or permitted or suffered, regardless of cause thereof, to rise above a point 12 inches below the lowest top point of the enclosing walls of each sump or reservoir, and such point shall be marked with a gauge or marker at least four inches square, located at a point accessible for gauging, and the top of such gauge shall not be below the top of each sump or reservoir; and~~
- ~~4. Temporary sumps may be constructed, maintained and used during the period of drilling a well for the normal purposes of mud usage or storage, walls of which shall be of substantial earth construction, and the fluid level of which shall not be allowed to rise above a point six inches from the top.~~

- ~~B. The construction of all sumps or reservoirs shall be prohibited meet the requirements of the Building Official.~~
- ~~C. It shall be unlawful for any person, firm or corporation to set fire to, or to burn, or to cause or permit any other person to set fire to or to burn, any petroleum or liquid with petroleum contents in any sump hole, open pool or reservoir, or to permit oil so situated on premises belonging to such, person, firm or corporation, to be burned.~~
- ~~D. All sumps are prohibited and only appropriate steel tanks shall be permitted for the containment and temporary storage of oils and/or oil water before removal to an appropriate regulated site. that are used, installed, or maintained for use in connection with any well, and which have not been used for 90 days for the operation of the drilling, redrilling, reworking or maintenance of such well or any other well in the vicinity, shall be cleaned out, and all oil, rotary mud, and rubbish removed.~~
- ~~E. Each sump of any depth shall have a fence erected and continuously maintained that encloses the sump. This provision shall not apply to sumps that are attended at all times while drilling, redrilling, reworking and maintenance operations.~~

**SECTION 18. DIKES AND RETAINING WALLS.**

- ~~A. It shall be unlawful for any person to use or cause to be used, or to maintain or cause to be maintained, any surface storage tank or containers located outside of any building, and in which flammable liquids, petroleum or its liquid byproducts, or liquefied petroleum gases are, or may be, placed or stored, unless such existing surface storage tank or container is surrounded by impervious lined or coated masonry or reinforced concrete walls, or dikes, so designed, constructed and maintained as to confine at least 110 percent capacity of the largest existing tank or container within such masonry or reinforced concrete walls or dikes consistent with NFPA 30 requirements.
 
  1. Such walls or dikes shall be increased for each additional tank or container of smaller capacity located within the same vicinity by 10% of the capacity of such additional tank or container.
  2. Such walls or dikes shall not be required for tanks of less than 2,000 gallons capacity, except where in the opinion of the Fire Chief and Public Works Director/City Engineer a hazardous condition exists.~~
- ~~B. Any existing surface storage tank or container located inside of any building and in which flammable liquids are, or may be, placed or stored shall be surrounded by masonry or reinforced concrete walls or dikes so designed, constructed, and maintained as to confine the total capacity of all such tanks or containers within such masonry or reinforced concrete walls or dikes.~~

**XX.** See also Section 20.E, Secondary Containment. 34



**SECTION XX PIPING AND ELECTRICAL EQUIPMENT (17)  
PROCESSING. (34) PIPELINES**

- D. Removal by Pipeline Only.** All oil, gas, and other hydrocarbon substances, except propane, produced from any well within the Oil Field shall be shipped and transported through pipelines, except in case of an emergency or when access to a pipeline becomes unavailable. If the Operator provides documentation satisfactory to the Fire Chief that any pipeline through which oil or gas is currently transported is unavailable for the safe transportation of said products due to maintenance problems with the pipeline, or lack of sufficient capacity within the pipeline to handle the volume of oil and gas needing transportation, or because the owner or operator of such pipeline elects to discontinue transporting oil or gas through such pipeline, then the Operator shall, within 180 days of the date the existing pipeline becomes unavailable, seek to acquire a private right of way or easement, or shall file an application for a right of way, easement, encroachment permit, or franchise for the construction of a replacement pipeline and shall diligently prosecute such application until such pipeline is completed. During any emergency situation, or during such time as any existing pipeline becomes unsafe or unavailable, oil and gas may be transported by truck for up to 180 days as allowed by the Fire Chief until the emergency situation is resolved or until a replacement pipeline is permitted and constructed in compliance with all applicable laws and regulations. In addition, the Operator shall coordinate with emergency service providers to alert them regarding the emergency and provide an oversight mechanism to ensure prompt resolution.
- E. Pipelines.** The Operator shall comply with the following provisions:
1. New pipelines that remove oil or gas from the Oil Field shall be buried below the surface of the ground;
  2. All pipelines that are not enclosed within a fence, and all pipelines (whether or not fenced) which are located within **500 feet** of any residential, commercial, cultural, educational, religious or government building, shall be placed underground or covered with materials approved by the Fire Chief. Said covers shall be maintained in a neat, orderly, and secure manner;
  3. Any and all water or brine produced during pipeline construction shall either be injected in accordance with DOGGR requirements, or disposed of in accordance with other local, state or federal regulations. Documentation of compliance with this Section shall be submitted to the Public Works Director/City Engineer;
  4. New pipeline corridors shall be consolidated with existing pipelines or electrical transmission corridors where feasible; and
  5. Upon completion of pipeline construction, the site shall be restored to the approximate previous grade and condition to the satisfaction of the Public Works Director/City Engineer.
- F. Active Pipeline Plot Plan.** Within one year of the Effective Date, or at such later date as may be approved by the Fire Chief, for good cause shown, the Operator shall prepare and submit to the Fire Chief a pipeline **plot plan** depicting the location of all active and inactive pipelines and all abandoned in-place pipeline regulated or know by the California Department of Transportation or California State Fire Marshall and owned or used by the Operator that are located within and to outside destinations from the Oil Field, including waste water, and trunk and gathering line to transport crude oil, gases or hydrocarbon substances. In addition, the Operator shall submit to the Fire Chief an **ALTA** survey indicating the exact location of all such pipelines, their franchise status, daily maximum flows, and maximum pressures. New pipelines or relocation of existing pipelines shall require the submittal of a revised plot plan within 30 days of installation of the pipelines, or at such later date as may be approved by the Fire Chief, for good cause shown.

**~~SECTION XX PIPING AND ELECTRICAL EQUIPMENT (17)~~**

- A.** The Operator shall prepare, submit for approval, maintain and implement a **Pipeline Management Plan** for the Community Development Director that complies with the California Fire Code and DOGGR regulations.
- I. Transportation Risk Management and Prevention Plan.** Within 180 days of the Effective Date, or at such later date as may be approved by the Public Works Director/City Engineer, Operator shall prepare and submit to the Public Works Director/City Engineer for review and consideration a **Transportation Risk Management and Prevention Plan**, which shall include, but is not limited to, the following:
1. Identification of transportation routes of crude oils, produced water, propane, butane and natural gas liquids for all Oil Operations;
  2. Provisions for conducting biennial comprehensive audits of the carriers to assure satisfactory

records, driver hiring practices, driver training programs, programs to control drug and alcohol abuse, safety incentive program, satisfactory vehicle inspections and maintenance procedures and emergency notifications;

3. Provisions for conducting biennial comprehensive audits of the carriers to assure satisfactory records, driver hiring practices, driver training programs, programs to control drug and alcohol abuse, safety incentive program, satisfactory vehicle inspections and maintenance procedures and emergency notifications;
  4. Provisions for allowing only carriers that receive a satisfactory rating under the above audit;
  5. Truck loading facilities, procedures, and checklists for ensuring that loading rack operator(s) and truck driver(s) both conduct and document in writing, visual inspections of the truck before loading and after completing the loading;
  6. Provisions for requiring transporters to use only carriers with vehicle monitoring system for governing or monitoring vehicle speed;
  7. Provisions for requiring transporters to use carriers with cellular phones for shipments; and
  8. Any other additional information required by the Public Works Director/City Engineer.
- G. Machinery Enclosures.** The Operator shall maintain existing enclosures around existing machinery with moving parts consisting of a fence, screening, or physical housing. Said enclosures shall be installed in compliance with the CCMC.
- H. Opening Protections.** The Operator shall cap, close, or protect the openings in all oil wells, test holes, and similar excavation to prevent injury or accidents.

#### SECTION XX PIPING AND ELECTRICAL EQUIPMENT (17)

- A.** The Operator shall prepare, submit for approval, maintain and implement a **Pipeline Management Plan** for the Community Development Director that complies with the California Fire Code and DOGGR regulations.
- B.** All pipe and pipe fittings, including valves, gauge glass fittings, and other similar appurtenances used in connection with any well and/or Oil Field equipment or other facilities ~~derrick, loading rack or tank~~, shall be designed, installed and maintained to safely withstand the pressure to which they may be subjected.
1. All valves directly controlling the flow of flammable liquids and gas from wells, equipment, facilities and existing tanks shall be of the rising stem or self-indicating type, or other type commonly used in Oil Operations, which is equally adequate or efficient. This provision shall not apply to valves less than two inches in diameter.
  2. Gauge glass fittings for tanks and for containers, sample cocks and other similar fittings intended or used for the purpose of drawing off flammable liquids or gases from tanks and/or containers, in any quantity shall be constructed of some metal having a melting point equal to steel or higher. Brass fittings shall not be used.
  3. Gauge glass fittings shall be equipped with automatic ball checks.
- C.** Any system of piping connected to a positive acting pump shall be equipped with an automatic pressure relief valve or suitable means to relieve the pressure of any such system and prohibit such pressure from exceeding 125% of the normal safe working pressure of the piping system or pump, whichever is the lower pressure.
- E.** See also Section 20.E.2, Secondary Containment.

#### SECTION XX ELECTRICAL EQUIPMENT (17)

- D.** All electrical equipment proposed to be used or used in connection with any permit issued hereunder shall conform to the State Electrical Safety Orders of the Industrial Accident Commission, current California Electrical Code and DOGGR regulations.

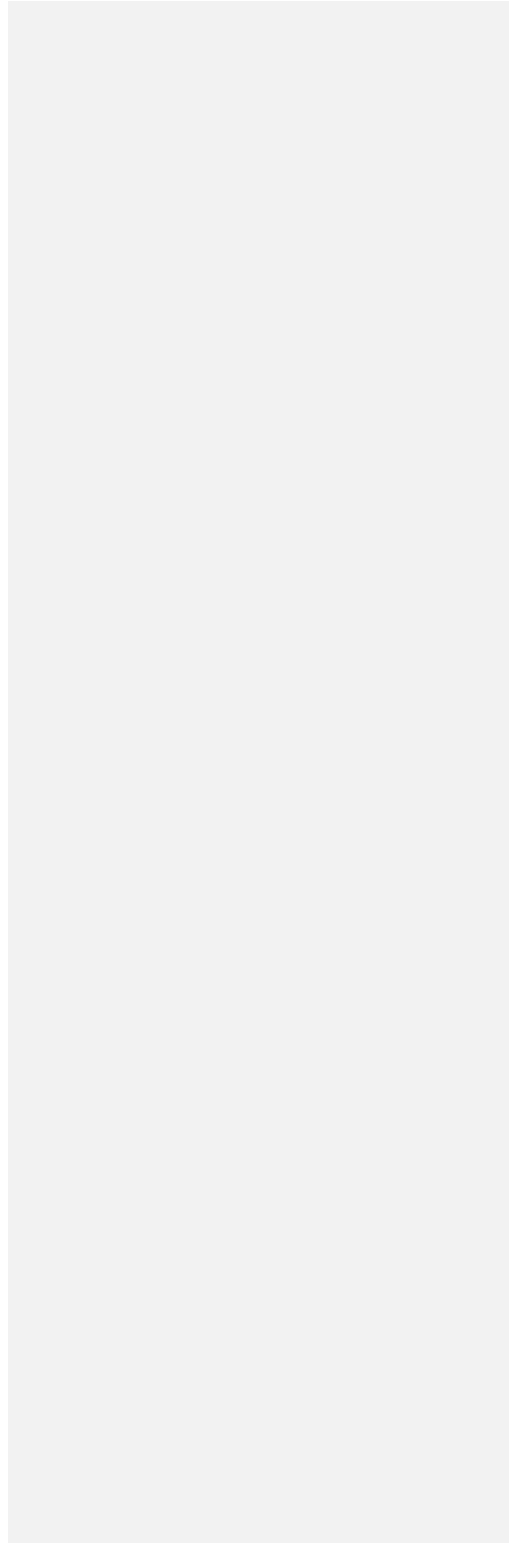
#### SECTION 19. TOILET AND WASH FACILITIES.

The Operator shall be required to provide a portable toilet for temporary employees on the permitted premises, within 200 feet of the work site for any Oil Operation. Sanitary toilet and washing facilities shall be installed at

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**Dr. Tom Williams**

any site where employees are permanently stationed. Temporary and permanent facilities shall be maintained in a clean and sanitary condition at all times and appropriately screened from public view.



The following elements would be parts of the five-year Annual Petroleum Programs and required as conditions for all permits.

**SECTION XX EMERGENCY MANAGEMENT ELEMENT (12+2+53+54)**

**A. FIRE OPERATING PERMIT, PROTECTION AND EMERGENCY RESPONSE (12)**

**1. Operating Permit.**

Operator shall submit applications for and obtain Annual Operating Permits, in accordance with the current California Fire Code and the Comprehensive Operations Plan. The Operator shall submit a Comprehensive Operations Plan, either separately or combined with the Comprehensive Drilling Plan along with the first Annual Operating Plan. The Comprehensive Operations Plan may include all elements herein (Sec. 12, 20, ) related to the Fire Chief's areas of interests as determined y the Fire Chief or the Community Development Director.

**Commented [tmyl4]:** This should be combined with all emergency, fire, spill etc requirements in one section

**2. On Site Fire Equipment.** Fire extinguishing equipment shall comply with all applicable fire and safety regulations, including, but not limited to, NFPA Standards, Industrial Risk Insurers (IRI) guidelines, and API Industrial Labor Relations and shall be maintained in accordance with the requirements of the Fire Chief.

**3. Fire Training and Equipment.** Operator shall be responsible for costs and expenses incurred by the City, up to \$25,000 annually (to be adjusted annually each July 1st to reflect the increase in the Consumer Price Index for all Urban Consumers, Los Angeles/Riverside/Orange County Area, as established by the U.S. Department of Labor for the period from March of the preceding year through March of the current year), for training and equipment, including hazardous materials training, oil/gas fire suppression and spill and release containment training, and other related specialized training and equipment as requested by the Fire Chief. In accordance with the provisions of Section 9.A, the Draw-Down Account shall be used to fund such training and equipment when requested by the Fire Chief and approved by the City's Chief Financial Officer.

**4. Fire Prevention Maintenance.**

- a. The Fire Chief may require the immediate cessation of all operations of the Operator whenever, in the Chief's judgment, an imminent fire hazard exists.
- b. The Fire Chief may also require emptying, transfer, or removal of petroleum and/or flammable materials from any facility or equipment to such location as the Chief deems advisable while such hazard exists.
- c. The Operator shall not allow flammable liquids or waste materials to flow or remain on the surface of the ground, whether on any other premises, public or private.
- d. No person shall smoke or possess a burning object within 25 feet of any oil/gas-related equipment or facilities containing petroleum or any products thereof, or any flammable liquids.

**5. Audit of Fire Fighting Capabilities.** The Fire Chief shall require an annual review, audit, and demonstration of fire-fighting capabilities as per the most recent NFPA requirements, California Fire Code, City Fire Code and Regulations, California Code of Regulations and API requirements. Issues addressed shall include, but not be limited to: fire monitor placements, fire-related water capabilities, fire detection capabilities and fire foam requirements. The audit shall also include a list of any current violations on record and a corrective action plan, which shall identify each non-compliance item or other matter to be addressed, describe the corrective action to be taken, and provide a timeline for the completion of each such corrective action. The audit results and corrective action plan shall be submitted to the Fire Chief for approval. The Operator shall submit to the Fire Chief monthly updates on the corrective action plan until such time as all corrective actions have been completed. The Operator shall complete any corrective action within the approved time limits called for in the plan.

**6. Spill Containment Plan and Response Personnel, Training and Equipment.**

- a. The Operator shall conduct annual spill containment response training and shall at all times have available onsite sufficiently trained personnel with an adequate amount of properly maintained equipment and/or facilities so that a spill of the entire contents from the largest oil tank on the Oil Field can be responded to and contained immediately to reduce the likelihood that the spill reaches a catch basin. The content of the spill containment response training and location of spill, resources



**1. Blowout Prevention.**

Operator shall not drill a well without equipping such well with adequate blow out prevention equipment, installed and maintained as required by DOGGR and with all safety orders of the State Division of Industrial Safety for drilling and production. Upon cementing of the surface string of casing and prior to drilling out the shoe of said string, blowout prevention equipment, tested and approved by DOGGR, shall be installed in accordance with the most current DOGGR requirements. Such equipment shall be capable of being operated from the driller's station and from another remote station. Redrilling, **reworking** and maintenance operations shall be equipped with blowout prevention equipment at the onset of operations in accordance with the most recent requirements of DOGGR. Blowout prevention equipment shall be maintained in good condition and shall be required to be tested at intervals as requested by DOGGR. Blowout prevention flanges and kill valves at the casing head shall be kept free of fluids to allow for routine inspection at any time.

**2. Well Casings.**

Operator shall equip the well with casings of sufficient strength and with safety devices in accordance with DOGGR requirements.

**3. Safety Precautions.**

Operator shall comply with all of the current safety precautions required by any State agency or the City.

**4. Belt Guards.**

Belt guards shall be required over all drive belts on drilling, redrilling, **reworking** and maintenance equipment. Guarding shall be in compliance with Title 8 of the California Code of Regulations, Section 6622, or as may be subsequently amended.

**5. Secondary Containment for Oil.**

The Operator shall ensure that all existing oil tanks and all new tanks have secondary containment (berms and/or walls) that can contain at least 110 percent of the largest oil tank volume for as long as necessary to respond and clean up a tank spill, in order to reduce the likelihood of oil spills entering the retention basins. In the event the Public Works Director/City Engineer determines that it would be infeasible to provide 110 percent containment for a particular existing oil tank, the Operator shall provide containment at a level determined by the Public Works Director/City Engineer to be feasible.

- a. All retention basins in the Oil Field or proposed basins shall be adequately sized, and maintained to handle a 100-year storm event plus a potential spill of the volume of the largest tank that would drain into each basin consistent with NFPA 30 requirements.
- b. All above ground piping in the Oil Field that contains or could contain oil shall be protected by basins or secondary containment measures (berms and/or walls). All new piping shall be above ground and shall have alarm sensors or another comparable system for immediately detecting leaks. All above ground piping shall be visually inspected for leaks on a daily basis. All existing underground piping shall be tested for leaks on an annual basis. Any pipes found to be leaking shall be promptly replaced with new piping meeting the requirements of this Ordinance.

**6. Basins.**

All retention basins used in Oil Operations shall be adequately sited, inspected, maintained and operated to the satisfaction of the Public Works Director/City Engineer. The Operator shall demonstrate to the satisfaction of the Public Works Director/City Engineer that the retention basins in the Oil Field satisfy the 100-year storm event requirements of Subsection E.1.

**C. SAFETY INSPECTION, MAINTENANCE, AND QUALITY ASSURANCE PROGRAM (SIMQAP) (53)**

Within 180 days of the Effective Date, Operator shall submit to the Community Development Director and Fire Chief for review and approval, a detailed SIMQAP that covers all existing and proposed Oil Operations. The Operator shall ensure that all persons working on the site fully comply with the SIMQAP, and shall provide for involvement of City staff and the City's On-Site Monitor in all inspections. The following provisions relate to the SIMQAP:

**1. SIMQAP Review and Revisions.**

The Operator shall periodically review and update the plan to incorporate changes in procedures, and

new safety and maintenance technologies. The Operator shall review and revise the plan at least every five years or more frequently if the Operator determines changes are necessary, or if requested by the Community Development Director or the Fire Chief. Revisions to the SIMQAP shall be submitted to the Community Development Director and the Fire Chief for their review and approval. The Operator shall respond to any request for additional information within 30 days of receiving such request, unless extended by the City.

**2. SIMQAP Requirements.**

The SIMQAP shall include but not be limited to the following:

- a. Inspection of construction techniques;
- b. Regular maintenance and safety inspections;
- c. Periodic safety audits;
- d. Corrosion monitoring and leak detection; and
- e. Inspections of all trucks carrying hazardous and/or flammable material prior to loading.

**3. Worker Notification.**

The Operator shall ensure that all personnel comply with all provisions of the currently approved SIMQAP.

**4. Inspections.**

The SIMQAP shall provide for involvement of City staff and the City's On-Site Monitor in all inspections required by this section.

**D. COMPLIANCE AND SAFETY AUDITS (54)**

At the discretion of the Community Development Director, the Operator may be required to fund a comprehensive third-party Compliance and Safety Audit of all or a portion of the Oil Operations within the jurisdiction of the City. The audit will ensure the safety of Oil Operations and compliance with all federal, state, regional and local laws, rules and regulations. The third-party auditor shall be approved by the Community Development Director and the Fire Chief. In addition to auditing compliance with agency rules and regulations, there shall also be a Comprehensive Facilities Safety Audit for Oil Operations, including all wells and facilities. In addition to the physical condition of the site, operations and procedures manuals for employees and equipment shall be reviewed, as well as manuals addressing emergency planning and procedures.

The results of the Compliance and Safety Audits, together with correction action plans for any non-compliance items or unsafe conditions found in the audit, shall be submitted to the Community Development Director and Fire Chief. The corrective action plan shall identify the non-compliance and unsafe items, describe the corrective action to be taken, and provide the timeline for each element of the corrective action. The Operator shall be in violation of the provisions of this section if the Operator fail to complete any corrective action called for by the corrective action plan within the approved time limits specified in the plan, and be subject to penalties as set forth in Section 9.F. The Operator shall submit to the Director monthly updates on the corrective action plan until such time as all corrective actions have been completed.

**SECTION XX AIR QUALITY, NOISE, AND VIBRATIONS ELEMENT (21+22+23)**

The Operator shall at all times conduct Oil Operations in accordance with the best available technology, safety devices and measures for the prevention of the release, escape, or emission of dangerous, hazardous, harmful and/or noxious gases, vapors, odors, substances, or greenhouse gases. The Operator shall prepare, submit, update, and receive approval for an Oil Air Compliance Plan which may be included as part of the Comprehensive Development Plan and which shall comply with the following provisions:

**A. AIR RESOURCES (21)**

1. **Emission Offsets.** The Operator shall obtain emission offsets or RECLAIM credits as defined and required by SCAQMD Regulations for all new or modified emission sources that require a new or modified SCAQMD permit. Proof of SCAQMD review and approval shall be submitted to the Community Development Director.
2. **Odor Minimization Plan.** Operator shall submit an **Odor Minimization Plan or Element** to be reviewed and approved or conditionally approved by the Community Development Director. The Community

Development Director may consult with the SCAQMD as needed in its review of the Plan. The Plan shall be designed to ensure public health and safety, provide detailed information about the Drilling Project(s), Oil Field and Oil Operations; specify the number, type and location of monitors that will be used; provide detailed information concerning the reliability of the instrumentation, frequency of calibration and other similar information; and address all issues relating to odors from Oil Operations. Matters addressed within the plan shall include setbacks, signs with contact information, logs of odor complaints, method of controlling odors such as flaring and odor suppressants, and the protocol for handling odor complaints. The Plan shall be reviewed by the Operator on an annual basis to determine if modifications to the Plan are required and report findings to the Community Development Director. Such findings and proposed modifications to the Plan shall be submitted to the Community Development Director for review and approval. Operator shall comply with all provisions of the approved Plan.

### 3. Air Monitoring.

#### a. Program/Element.

Operator shall submit an Air Monitoring Plan or Element to be reviewed and approved or conditionally approved by the Community Development Director. The Air Monitoring Plan shall include any measure requested by the Community Development Director. The Plan shall be designed to ensure public health and safety through the reduction in air toxics and odorous emissions and reduce greenhouse gas emissions from Oil Operations. The Plan shall also specify the number, type and location of monitors that will be used, and provide detailed information concerning the reliability of the instrumentation, frequency <<<< of calibration and other similar information. The Air Monitoring Plan shall also be designed to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations within the Oil Field, and endeavor to determine and distinguish the source of emissions, to the extent feasible, using available and affordable monitoring technology. Additionally, air monitoring may also be required, as requested by the Community Development Director, along the Outer Boundary of the Oil Field to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations in the portion of the Inglewood Oil Field under the jurisdiction of Los Angeles County. During drilling, redrilling, **reworking** or maintenance operations, the Operator shall monitor for hydrogen sulfide and total hydrocarbon vapors as specified in the approved Plan. Hydrogen sulfide shall also be monitored using fixed or mobile monitoring equipment in response to odor complaints from the public or when onsite odors are encountered by operating personnel. Total hydrocarbon vapors shall be monitored, so as to exceed the requirements of SCAQMD Rules 1148 and 1173, using monitoring equipment at locations surrounding the wells, tanks, piping, piping components, etc. at the locations and frequencies, no less frequent than quarterly, that shall be based on air quality modeling and/or specified in the approved Plan. The approved monitors shall provide automatic alarms that are triggered by the detection of hydrogen sulfide or total hydrocarbon vapors at levels designated in the approved Plan. For drilling, redrilling, **reworking** operations, or maintenance monitors, the alarms shall be audible and/or visible to the person operating the drilling, redrilling, **reworking**, operating, or maintenance equipment. When specified alarm levels are reached, the following actions shall be taken:

- 1) At a hydrogen sulfide concentration of equal to or greater than one part per million but less than 10 parts per million, the Operator shall, immediately, and not later than 30 minutes after the alarm, investigate the source of the hydrogen sulfide emissions and take immediate corrective action to eliminate the source. The corrective action taken shall be documented in the drilling, redrilling, **reworking** and maintenance log, or applicable inspection and maintenance logs. If the concentration is not reduced to less than one part per million within 30 minutes of the first occurrence of such concentration, the Operator shall shut down the drilling, redrilling, **reworking** or operations or other source in a safe and controlled manner, until the source of the hydrogen sulfide emissions has been eliminated, unless shutdown creates a health and safety hazard.
- 2) At a hydrogen sulfide concentration equal to or greater than 10 parts per million, the Operator shall immediately commence the shutdown of the drilling, redrilling, or **reworking** operations or other source in a safe and controlled manner until the source of the hydrogen sulfide emissions has been eliminated, unless shutdown creates a health and safety hazard. The corrective action taken shall be documented in the drilling, redrilling, or **reworking** log, or applicable inspection and maintenance logs. When an alarm is received, the Operator shall immediately notify, and provide access and the right to investigate the event as necessary to all agencies >>>>>>> with jurisdiction over the Oil Field, including, but not limited to, the Culver City Fire Department, the Los Angeles County Fire Department - Health Hazardous Materials Division, DOGGR, and SCAQMD.





to alarm and notify the Operator if any release occurs. In the event of an alarm, the Operator shall immediately take corrective action to reduce the tank pressure. The corrective action shall be documented in the applicable inspection and maintenance log. The Operator shall notify the Fire Chief and SCAQMD within 24 hours if the pressure in any tank covered by this Subsection ever exceeds such tank's relief pressure or if the hatches on the tank(s) have lifted and allowed gas to vent to atmosphere. Within seven calendar days after any tank vapor release, the Operator shall submit a report of the incident to SCAQMD as a breakdown event pursuant to Rule 430, and shall provide the Fire Chief with a written report of the event and the corrective measures undertaken and to be undertaken to avoid future oil tank vapor releases. The Operator shall make any changes to such report that may be required to obtain approval from the Fire Chief and SCAQMD, shall promptly institute all corrective measures called for by the report, and shall report the completion of the corrective measures to the Fire Chief and the Community Development Director within one week of their completion.

7. **Odor Collection for Drilling, Reworking, and Redrilling Operations.** The Operator shall use an odor collection/treatment system on the mud shaker tables and well heads for all drilling, reworking, and redrilling operations to ensure that no odors from such operations can be detected at the Outer Boundary of the Oil Field. In addition, a proximity switch shall be installed at the tank relief outlet (vent) to alarm and notify the Operator if any release occurs. The odor collection/treatment system used shall be approved by the Community Development Director and shall eliminate rather than suppress or mask odors.
8. **Closed Systems for Produced Oil and Water.** The Operator shall ensure all stimulation and produced water and oil associated with production, processing, and storage, except produced water and oil used for sampling only, are contained within closed systems, as defined in the current California Fire Code, at all times.
9. **Off-Road Diesel Construction Equipment Engines.** No "off-road" diesel construction equipment shall be used within the Oil Field and all equipment shall comply with the following provisions:
  1. Utilize CARB/EPA Certification Tier 4 or better certified engines for engines below 750 horsepower and Tier 3 engines for engines at or above 750 horsepower or other methods approved by CARB as meeting or exceeding the Tier 3 or Tier 4 standards.
  2. Utilize a CARB Verified Level 3 diesel catalyst. The catalyst shall be capable of achieving an 85 percent reduction for diesel particulate matter. Copies of the CARB verification shall be provided to the Community Development Director. Said catalysts shall be properly maintained and operational at all times when the diesel engines are running. CARB Verified Level 3 catalysts are not required for engines that meet Tier 4 standards.
10. **Drill Rig Engines.** All drilling, redrilling, reworking and maintenance rig diesel engines shall comply with the following provisions:
  1. Utilize CARB/EPA Certification Tier 2 or better certified engines or other methods approved by CARB as meeting or exceeding the Tier 2 standard.
  2. Utilize second generation heavy duty diesel catalysts capable of achieving 90 percent reductions for hydrocarbons and for particulate matter smaller than 10 microns. Said catalysts shall be properly maintained and operational at all times when the diesel engines are running.
  3. Utilize natural gas-powered drill rigs or other engine technologies that are capable of reducing environmental impacts in comparison to the requirements set forth in Subsections 15.14.100.I.1 and 15.14.100.I.2, hereinabove, when such technologies have been determined to be feasible and commercially available through a Clean Technology Assessment in the **Annual Drilling Plan**.
11. **Drilling, Redrilling, and Reworking Setbacks.** The following setbacks shall apply within the Oil Field for drilling or reworking:
  1. **Drilling.**
    - a. At least 400 feet from Developed Areas.
    - b. At least 75 feet from any public roadway.
    - c. The well hole setbacks prescribed in this subsection may be reduced at the discretion and approval of the Community Development Director if it can be determined the setback reduction will not be detrimental to public health, safety or general welfare.
    - d. As part of the **Consolidation and Annual Drilling, Redrilling, Well Abandonment, and Well Pad Restoration Plan** (Section 31.B) the Operator shall provide an inventory of existing wells

that encroach into the setback area specified above. Said inventory shall also include a schedule for properly abandoning the wells encroaching into the setback area, based upon their respective current productive life without redrilling.

2. **Slant Drilling.** The Operator shall employ slant drilling whenever feasible to do so in order to locate the Top Hole as far from Sensitive Developed Areas as may be reasonably necessary to mitigate impacts.
  - a. **Deep-Zone Wells.** If the Operator intends to drill Deep-Zone Wells where the Top Hole is closer than 800 feet to a Sensitive Developed Area then the Operator shall prepare and receive approval for a **Deep-Zone Supplement** to the **Annual Drilling Plan**, as required by Section 31.C.
  - b. **Mid-Zone Wells.** If an Operator intends to drill Mid-Zone Wells where the Top Hole is closer than 800 feet to a Sensitive Developed Area then the Operator shall prepare and receive approval for a **Mid-Zone Supplement** to the **Annual Drilling Plan**, as required by described in Section 31.C.
  - c. **Shallow-Zone Wells.** If an Operator intends to drill **Shallow-Zone Wells** where the Top Hole is closer than 800 feet to a Sensitive Developed Area then the Operator shall prepare and receive approval for a **Shallow-Zone Supplement** to the **Annual Drilling Plan**, as required by described in Section 31.
  
12. **Fugitive Dust Control Plan.** Within 120 days following the Effective Date, or at such later date as may be approved by the Public Works Director/City Engineer for good cause shown, Operator shall submit a Fugitive Dust Control Plan/Element to the Public Works Director/City Engineer for review. The plan shall comply with all requirements of SCAQMD Rule 403 and shall cover all existing operations and any future projects that may or may not require a grading permit. The Operator shall review the plan every five years and incorporate any modifications deemed necessary due to amendments to SCAQMD Rule 403 or as required by the City. Any revisions to the Fugitive Dust Control Plan shall be reviewed and approved by the Public Works Director/City Engineer. The plan shall include consideration of the following measures, other measures listed in SCAQMD Rule 403, Tables 1 through 3, and other measures at the discretion of the Public Works Director/City Engineer.
  - a. Application of water at least every four hours, or more frequently if conditions so require, to the area within 100 feet of a structure being demolished, to reduce vehicle trackout, and to other actively disturbed areas within a construction site;
  - b. Application of CARB-precertified, or equivalently effective, non-toxic soil binders to disturbed areas upon completion of demolition;
  - c. Application of water to disturbed soils after demolition is completed or at the end of each day of cleanup;
  - d. Prohibition against demolition activities when wind speeds exceed 25 mph;
  - f. Requirement of minimum soil moisture of 12% for earthmoving by use of a moveable sprinkler system or a water truck. Moisture content can be verified by lab sample or moisture probe;
  - g. Requirement that all trucks hauling dirt, sand, soil, or other loose materials are to be tarped with a fabric cover and maintain a freeboard height of 12 inches;
  - h. When backfilling, mix backfill soil with water prior to moving, dedicate water truck or high capacity hose to equipment, minimize drop height from loader bucket and empty loader bucket slowly;
  - i. Requirement of paved interior roads to be at least 100 feet long, 12 feet wide per lane and edged by rock berm or row of stakes, or addition of four-foot shoulder for paved roads;
  - j. Limit vehicular traffic to established paved and unpaved roads and parking areas;
  - k. Requirement that maximum speed on unpaved roads be limited to 15 miles per hour;
  - l. Implementation of watering three times a day for active unpaved roads, or more often as necessary to ensure that no visible emissions occur during unpaved road travels. As an alternative to watering, unpaved roads may be treated with CARB-precertified, or equivalently effective, non-toxic soil binders in a manner and at a frequency based on manufacturer recommendations;
  - m. Application of CARB-precertified, or equivalently effective, non-toxic soil binders annually to unpaved parking areas;
  - n. Application of CARB-precertified, or equivalently effective, non-toxic soil binders, or daily watering, or installation of temporary coverings to storage piles;
  - o. Application of CARB-precertified, or equivalently effective, non-toxic soil binders on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days);

- p. Planting of tree windbreaks, consistent with the approved Landscaping Plan, on the windward perimeter of construction projects if adjacent to open land;
- q. Planting of vegetative ground cover in disturbed areas, consistent with the approved **Landscaping Plan**, as soon as possible;
- r. Installation of a track-out control device to reduce mud/dirt track out from unpaved truck exit routes that exit onto City streets, that may be any or a combination of the three following options: (a) wheel washers where vehicles enter and exit unpaved areas onto paved roads, or requirement to wash off trucks and any equipment leaving the site each trip; (b) pipe-grid track-out- control device; or (c) installation of gravel bed track-out apron (three inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes). Additionally, any visible track-out onto City streets caused by Oil Operations will be swept using water-based sweepers at least once a day; and
- s. Limit construction projects or schedule them to the extent possible so that they are not concurrent to prevent grading at multiple locations within the Oil Field.

**13. Inspection and Maintenance Program Information.**

Upon request, the Operator shall make available for inspection by City staff all required SCAQMD, CARB, and EPA inspection and maintenance program records. This requirement applies to all sites subject to SCAQMD, CARB, and EPA inspection and maintenance programs within City limits.

**14. Greenhouse Gas Recordkeeping and Cap and Trade Program Information.**

Upon request, the Operator shall make available for inspection by City staff all required CARB and EPA greenhouse gas inventories and inventory verifications that include emission from activities within the Oil Field, and CARB Cap and Trade program compliance documentation.

**B. NOISE ATTENUATION (22)**

All Oil Operations shall be conducted in a manner that implements and is consistent with the best available measures for the prevention of excessive, annoying or unusual noise, and shall comply with the following provisions:

**1. Noise Limits.**

- a. All Oil Operations on the Oil Field shall comply with the noise provisions of the CCMC Title 9, Chapter 9.07 (Noise Regulations). In the event there are any inconsistencies between Chapter 9.07 and the provisions of this Ordinance, this Ordinance shall take precedence for Oil Operations.
- b. Hourly, A-weighted equivalent noise levels associated with well drilling, redrilling, **reworking** and maintenance shall not elevate existing baseline levels by more than five dBA during daytime hours (7:00 am to 10:00 pm).
- c. Operator shall limit the night time (10:00 p.m. to 7:00 a.m.) noise levels at any sensitive receptor to no more than three dBA above a one-hour baseline average for the defined nighttime period. If Operator violates the above noise requirements, Operator shall identify the source of the noise and take steps necessary to assure compliance with this subsection.
- d. If well drilling, redrilling, **reworking** and maintenance operations elevate nighttime baseline noise levels by more than 10dBA for more than 15 minutes in any one hour, as independently verified and determined by the City, the Operator, in consultation with the City, shall identify the cause and source of the noise and takes steps to avoid such extended periods of noise elevation in the future.
- f. Noise produced by Oil Operations shall include no pure tones when measured beyond the Outer Boundary or, for other locations, as determined by the Public Works Director/City Engineer.

**2. Backup Alarms.**

Backup alarms on all vehicles operating within the Oil Field shall be disabled between the hours of 8:00 p.m. and 8:00 a.m. During periods when the backup alarms are disabled, the Operator shall employ alternate, low-noise methods for ensuring worker safety during vehicle backup, such as the use of spotters.

**3. Quiet Mode Drilling Plan.**

All Drilling Projects shall include the preparation and approval of a Quiet Mode Drilling Plan that would apply between the hours of 6:00 p.m. and 8:00 am. The Plan shall be submitted at the time of application or at such later date as may be approved by the Community Development Director, for good cause shown. All Oil Operations shall be conducted in conformity with the Plan that has been reviewed and approved

by the Community Development Director. The Plan shall be reviewed by the Operator on an annual basis to determine if modifications to the Plan are required and report findings to the Community Development Director. Such findings and the modified Plan shall be submitted to the Community Development Director for review and approval. Operator shall comply with all provisions of the approved Plan. The Plan shall include, but is not limited to the following:

- a. Installation of noise barriers.
- b. **Oil Drilling and Operations** personnel shall take particular care when standing back while tripping out of hole to ensure that there is minimal clanging of pipe.
- c. While tripping in the hole, steps shall be taken to ensure that the blocks are completely stopped prior to latching the elevators.
- d. Whenever latching the elevators, personnel shall lay the pipe in the elevators and latch slowly and as quietly as possible.
- e. When picking up drill pipe or casing personnel shall use the high line, and try to prevent hitting the pipe against the cat walk and v-door.
- f. Rubber shall be required on the v-door when picking up pipe.
- g. Personnel shall place rubber or wood on the catwalk when rolling pipe off the pipe racks onto the catwalk.
- h. Steps shall be taken to minimize any banging of pipe on the catwalk by careful use of the forklift.
- i. Hammering on or racking of pipe shall be not permitted.
- j. Operation of the well cellar pump shall not be permitted.
- k. Yelling to other on-location personnel shall not be permitted. Site personnel and the **driller** shall communicate with walkie talkies.
- l. Horns shall not be used to give signals.
- m. Any other additional information required by the Community Development Director.

**4. Engines.**

Critical grade or better exhaust muffler systems shall be used to reduce noise from diesel drilling rig engines. All other equipment powered by internal combustion engines shall use residential grade or better exhaust muffler systems to reduce noise.

**5. Equipment Servicing.**

All noise producing Oil Field equipment shall be regularly serviced and repaired to minimize increases in pure tones and other offensive noise output over time and to ensure that tonal and other offensive noise from worn bearings, metal-on-metal contact, valves and other equipment does not cause perceptible tonal or other offensive noise at the Outer Boundary or any neighboring property. The Operator shall maintain an equipment service log for all noise- producing equipment, which shall be subject to inspection by the City.

**6. Deliveries.**

- a. Except as provided in Section 22.E.2, deliveries shall not be permitted after 8:00 p.m. and before 7:00 a.m. except in cases of emergency. Deliveries on Sundays or legal holidays shall not be permitted after 8:00 p.m. and before 9:00 a.m., except in cases of emergency.
- b. Deliveries within 500 feet of any residential property shall not be permitted after 5:00 p.m. and before 7:00 a.m. except in cases of emergency. Deliveries on Sundays or legal holidays shall not be permitted after 5:00 p.m. and before 9:00 a.m., except in cases of emergency or as approved by the Community Development Director.

**7. Time Limits for Construction.** Construction of permanent structures shall not be permitted after 7:00 p.m. and before 7:00 a.m., or during Saturdays, Sundays, or legal holidays, except in cases of emergency or as approved by the Community Development Director.

**8. Construction Equipment.** All construction equipment shall be selected for low- noise output. All construction equipment powered by internal combustion engines shall be properly muffled and maintained. The Operator shall maintain an equipment service log subject to inspection by the Public Works Director/City Engineer.

**9. Construction Equipment Idling.** Unnecessary idling of construction equipment internal combustion engines is prohibited.

10. **Worker Notification.** The Operator shall instruct employees and subcontractors about the noise provisions of these regulations prior to commencement of each and every drilling, redrilling, reworking, construction and maintenance operation, and shall annually certify to the Public Works Director/City Engineer that such employees and subcontractors have been properly trained to comply with such >>>>>>>>> noise provisions. The Operator shall prominently post quiet mode policies at every drilling and redrilling site.
11. **Monitoring.** The Operator shall employ an independent qualified acoustical engineer, approved by the Public Works Director/City Engineer to install equipment to continuously monitor and digitally record noise levels at and near the Oil Field or Drilling Project location. Such monitors shall be placed at locations and for the frequency and duration identified by the Public Works Director/City Engineer and shall include adjacent sensitive receptor locations and at locations where complaints were received regarding Drilling Project activities. The results of all monitoring shall be submitted to the Public Works Director/City Engineer on a quarterly basis. The monitoring required by this subsection shall be implemented no later than 180 days following the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown.

**C. VIBRATION REDUCTION (23)**

All Oil Operations shall be conducted in a manner that minimizes vibration, and shall comply with the following provisions:

1. Vibration levels from Oil Operations shall not exceed a velocity of 0.25 mm/s over the frequency range 1 to 100 Hz at the Outer Boundary.
2. Should vibration levels at any time exceed the thresholds specified above, or should the Operator otherwise fail to comply with all of the provisions specified herein, the Operator shall immediately notify the City and shut down the source of drilling and redrilling found to be in non-compliance with the thresholds specified in this Ordinance, and no new drilling or redrilling activities may be commenced or approved until the Operator has taken all steps necessary to assure future compliance with the thresholds and other provisions. The foregoing remedies are not exclusive, but shall be in addition to any other remedies available for a violation of the CCMC.
3. The Operator shall hire an independent qualified engineer, approved by the Public Works Director/City Engineer, to install equipment to continuously monitor and digitally record vibration levels at the Outer Boundary. Such monitors shall be placed at locations selected by the Public Works Director/City Engineer. The results of all such monitoring shall be submitted to the Public Works Director/City Engineer on a quarterly basis.



conclusions and recommendations regarding the need for continued surveying and reports. If an annual study is not approved, the Operator shall promptly take such actions as are necessary to obtain approval. This requirement may be waived by the Public Works Director/City Engineer if the Operator can demonstrate that this requirement is being implemented and has been approved for other parts of the Oil Field. However, the Operator must conclusively show that the annual ground movement studies apply to the Oil Field within the jurisdiction of the City in order for this requirement to be waived.

**E. Ground Movement Threshold Limits.** In the event that the annual monitoring surveys indicate that ongoing ground movement, equal to or greater than 0.6 inches or a lesser value determined by the Public Works Director/ City Engineer, at any given location is occurring in an upward or downward direction in the vicinity of or in the Oil Field, the Operator shall review and analyze all claims or complaints of Subsidence or Settlement damage that have been submitted to the Operator or the City by the public or a public entity in the 12 months since the last ground movement survey. Based on this information, the Operator shall prepare a report that assesses whether any of the alleged subsidence damage was caused by Oil Operations and submit said report to DOGGR and the Public Works Director/City Engineer.

1. No further drilling or re-drilling shall be commenced or approved, and all existing drilling shall immediately cease if required by the Public Works Director/City Engineer, until the cause of the movement has been determined.
2. If the Operator's operations are the cause or a contributing factor no further drilling or re-drilling shall be commenced or approved, and all existing drilling shall immediately cease if required by the Public Works Director/City Engineer, until a remedy, such as adjustments in ground water flood operations, has been >>>>>>> fully implemented to alleviate the ground movement to the satisfaction of DOGGR and the Public Works Director/City Engineer.
3. **Injection** pressures associated with secondary recovery operations shall not exceed reservoir fracture pressures as specified in California Code of Regulations Title 14, Division 2, Section 1724.10, and as approved by DOGGR.

**F. Fault Investigation Report.** Tanks or other permanent structures shall not be constructed in the Alquist-Priolo Fault Zone without preparation of a Fault Investigation Report by a California Certified Engineering Geologist, to be reviewed and approved by the Building Official. Following the Report, no such structure shall be placed within 50 feet of a known active fault in accordance with California Public Resources Code Division 2, Chapter 7.5 and California Code of Regulations, Title 14, Article 3.

**G. Seismic Activity Tracking.**

The Operator shall prepare, submit for approval, and update as requested a Seismic Activity Plan either as a separate element in conjunction with other plans or as a separate plan and shall include both notice seismic event and microseismic event monitoring and reporting.

1. Within 180 days of the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown, the Operator must demonstrate ability to track and record seismic activity relating to Oil Operations by using a fully operating and properly maintained accelerometer (in coordination with the Cal Tech Seismological Laboratory). The accelerometer shall determine site-specific ground accelerations as a result of any seismic event in the region (Los Angeles/Orange County and offshore waters of the Santa Monica Bay and San Pedro Channel). Readings from the accelerometer shall be recorded and transmitted in real-time to the Caltech Seismological Laboratory. The Operator shall cease operations and inspect all pipelines, tanks, and other infrastructure following any seismic event that exceeds a ground acceleration of 13 percent of gravity (0.13 g). The Operator shall promptly notify the Public Works Director/City Engineer if there is a seismic event that necessitates the ceasing of operations. The Operator shall not reinstitute operations and use of associated pipelines until all infrastructure is structurally sound as determined by DOGGR and the Public Works Director/City Engineer. Documentation of this requirement shall be submitted with the Drilling Use Permit applications and Annual Drilling Plans.
2. The Operator shall demonstrate ability to track and record microseismic activity (-3 to +2 Richter Magnitudes) relating to appropriate Oil Operations, including but not limited to various fracturing-stimulation, enhanced oil recovery, or disposal operation by using fully operating and properly maintained microaccelerometer array (in coordination with the program in Section 24.G.1 above). Microseismicity study and monitoring plan shall be prepared and submitted within 180 days of the Effective Date or at such later date as may be approved by the Public Works Director/City



Engineer, and shall be operational before drilling commences for any new well or reworking of existing wells,

The accelerometer shall determine site-specific ground accelerations as a result of any seismic event in the region (Los Angeles/Orange County and offshore waters of the Santa Monica Bay and San Pedro Channel). Readings from the accelerometer shall be recorded and transmitted in real-time to the Caltech Seismological Laboratory. The Operator shall promptly notify the Public Works Director/City Engineer if any microseismic events requires changing of Oil Operations. Documentation of this requirement shall be submitted with the Drilling Use Permit application and Annual Drilling Plans.

**H. Erosion Control Plan.**

Within 180 days of the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown, Operator shall develop and submit for review and approval by the Public Works Director/City Engineer an Erosion Control Plan. All grading and other Drilling Project activities shall be in complete conformity with the approved Erosion Control Plan. The Erosion Control Plan shall include, but is not limited to, the following measures:

1. Graded areas shall be stabilized with riprap (i.e., crushed stone) or other ground cover as soon as grading is completed. The surface of slopes shall be roughened during the construction period to retain water, increase infiltration, and facilitate establishing vegetation. Tracked machinery shall be operated up and down (parallel with) slopes to leave horizontal (perpendicular) depressions in the soil, which run across the slope, on the contour; >>>>
2. Slope breaks, such as diversions, benches, or contour furrows shall be constructed to reduce the length of cut-and-fill-slopes, thus limiting sheet and rill erosion and preventing gully erosion;
3. Sediment barriers shall be used around construction areas to retain soil particles on-site and reduce surface runoff velocities during rainfall events. Sediment barriers could include straw bales, silt fences, and gravel and earth berms. Silt fences shall be placed on slope contours in areas where shallow overland flow is anticipated;
4. Temporary and permanent drainages shall be employed, as necessary, to reduce slope erosion and prevent damage to construction areas. Sheet flow across or toward a disturbed area shall be intercepted and conveyed to a low to moderate gradient (1 to 5 percent slope) sediment basin, erosion-resistant drainage channel, or a level, well-vegetated area. Drainages include swales, diversion dikes, and slope drains; and
5. Waterbars, rolling dips, and outsloping roads shall be constructed as part of new road construction to disperse runoff and reduce the erosive forces associated with concentrated flows.

**I. Slope Restoration.**

Slopes shall be restored to their original grade, to the satisfaction of the Public Works Director/City Engineer, once the use that required the grading of the slope has been discontinued. However, if restoration of a slope would negatively affect existing drainage patterns or slope stability, then the slope shall be restored to a grade that avoids these negative effects, as determined by the Public Works Director/City Engineer.

**SECTION YY WATER MANAGEMENT**

**A. SURFACE WATER MANAGEMENT (26)**

Within 180 days of the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown, the Operator shall submit a **Water Management Plan**, to be reviewed and approved by the Public Works Director/City Engineer, that documents best water management practices, which includes water conservation measures, the use of a drip irrigation system, and provisions for the use of surface water runoff in the retention basins for dust suppression and landscaping. The Plan shall also address the availability of reclaimed water at the Drilling Project site and use of such water to the greatest extent technically feasible if and when it becomes available. The Plan shall also include any additional information required by the Public Works Director/City Engineer. Once a Drilling Use Permit is approved, the Operator and Public Works Director/City Engineer shall review the Plan every three years to determine if modifications are required. If a source of reclaimed water should become available in subsequent years, the Operator shall be required to modify the Plan to accommodate the use of reclaim water to the greatest extent technically feasible.

Any modifications to the Plan shall be submitted to the Public Works Director/City Engineer for review and approval.

#### **B. STORMWATER AND DRAINAGE MANAGEMENT (27)**

The Operator shall prepare, update as required, and submit for approval either as a separate element within other plans or a separate plan the Stormwater Pollution Prevention Plan (SWPPP). This Plan shall be coordinated with other related-related plans (e.g., surface, subsurface and waste waters).

1. **Stormwater Pollution Prevention Plan (SWPPP).** The Operator shall at all times maintain and implement all provisions of a SWPPP that has been inspected by the RWQCB and the Public Works Director/City Engineer. Prior to conducting any Drilling Project activities, the Operator shall provide the Public Works Director/City Engineer with a copy of the SWPPP, and any future modifications, revisions, alterations, or replacements.
2. **Spill Prevention, Control, and Countermeasure Plan (SPCCP).** The Operator shall maintain and implement all provisions of a SPCCP, which meets the requirements of the Local California Unified Program Agency and the EPA. Prior to conducting any Drilling Project activities, the Operator shall provide the Fire Chief with a copy of the SPCCP and any future modifications, revisions, or alterations, or replacements.
3. **Hydrologic Analysis.** An Oil Field and site-specific hydrologic analysis shall be completed to evaluate anticipated changes in drainage patterns and associated increased runoff at the site for any new grading that results in the loss of vegetated, sandy, permeable ground areas, which could alter surface runoff at the site. The analysis shall be completed consistent with Standard Urban Stormwater Mitigation Plan regulations, as specified by the Public Works Director/City Engineer. The hydrologic analysis shall be submitted to the Public Works Director/City Engineer for review and approval prior to conducting any Drilling Project activities. Any new grading that requires a hydrologic analysis shall not occur until the Public Works Director/City Engineer approves the hydrologic analysis.

#### **4. GROUNDWATER MANAGEMENT MONITORING (2XX)**

Within 180 days of the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown, the Operator shall develop, implement, and carry out a **Groundwater Monitoring Program** for the Drilling Project site or Oil Field that is reviewed and approved by the Public Works Director/City Engineer. The Operator's Groundwater Monitoring Program shall comply with all requirements of the RWQCB, and the Operator shall submit such reports, documents, and recordings as required by the RWQCB to the City, the Board, the Water Replenishment District of Southern California, the West Basin Municipal Water District, and Golden State Water Company for review. Pursuant to the approved Program, the Operator shall install and maintain at least three (3) groundwater monitoring wells in the Oil Field as required by the RWQCB. Such monitoring wells shall be completed to the base of the permeable, potentially water-bearing, alluvium, Lakewood Formation, and San Pedro Formation, and to the top of the underlying, non- water-bearing formation, as determined by DOGGR as the Base of Fresh Water and by a California-certified professional geologist to be approved by the Public Works Director/City Engineer. The Program shall address water levels and water quality, and shall include **deep zone** water level monitoring within the Pico Formation and other cap rock units on west sides of the Newport-Inglewood Fault Zone. The RWQCB and the Public Works Director/City Engineer shall be advised of the results of such monitoring on a quarterly basis and shall be immediately advised if such monitoring indicates a potential problem.

#### **Biological Resources Management Element**

#### **Cultural Resources Management Element**

Section 31 Consolidation and Annual Drilling, Redrilling, **Well Abandonment, and Well Pad Restoration Plan**

**WELL CONSTRUCTION AND RECONSTRUCTION**

Drilling, Reworking, Deepening, Redrilling, and Abandonment

**Section XX Petroleum-Exploration Permits**

**Surveys**

**Pads(Single Well) / Platforms \*Two or More Wells)**

Pads/Platforms

Singular

Multiple

**Temporary/Portable Facilities/Equipment and OPERATIONS**

**Construction - Drilling,  
Reconstruction - Reworking, Redrilling, and/or Deepening  
Completion**

**Section XX Conventional and Unconventional Construction and Reconstruction**

Section 48 **Injection Wells**

Section 47 Idle Well Testing and Maintenance

Section 32 High Pressure Stimulation and Hydraulic Fracturing

Section 33 Well Rework, Maintenance, and Abandonment Rigs

**Section XX Annual Petroleum-Production Permits**

**Section XX Permanent Facilities and Equipment**

**A. Wells**

**1. Types**

Active Producer

Gases

Oil

Active Injectors

Waters

Gases

Idle

Monitoring

Disposal-Injector

Abandoned Wells

**2. Well Designs**

Bores

Casings

Cementing

Mudding

Perforations

**3. Section 35 Well Cellars**

Singular

Multiple

**Above Ground/Head Works**

4.

**B. Section 41 Other Standards**

**C. Fixed Surface Field/Unit Facilities and Operations Procedures**

- Section 11 Operating Standards
  - Section 14 Major Facilities Prohibited
  - Section 34 Processing
  - Section 13 Sumps and Reservoirs
  - Section 15 Tanks
  - Section 16 Location of Tanks
  - Section 18 Dikes and Retaining Walls
  - Section 17 Piping and Electrical Equipment
  - Section 38 Public Roadways and Private Road Construction
  - Ditches
  - Detention Basins
  - Section 28 Storage of Hazardous Materials and Oil Field Waste Removal
- BioFarms**

**D. Miscellaneous Facilities**

- Section 19 **Sanitary and Hygiene** Toilet and Wash Facilities
- Section 36 **Lighting and Screening**
- Section 37 Landscaping
- Section 39 Signs

**Section XX. Removal/Abandonment**

- Section 40 Equipment Removal and Maintenance
- Section 49 Abandoned Well Testing
- Section 50 Well and Well Pad Abandonment
- Section 52 Oil Field Abandonment Procedures

**Submissions - Plans**

- 11. Clean Technologies Assessments
- 12.F/20/52/53/ Spill, Fires, and Emergencies - Plans
  - 12.H Community Alerts
  - 12.I Drills
  - 12.A/54 Audits
- Landuses and Sensitive Receptors AQ/Noise/Vibration
- 21.J Setbacks
- 37.A Landscaping Plan
- 36.B Lighting
- 21.A AQ Compliance Plan
- 21.C Monitoring Plan
- 21.B Odor Plan

COMMENTS - CULVER CITY PETROLEUM REGULATIONS

Dr. Tom Williams

- 21.K Fugitive Dust -
- 21.L Inspection and maintenance Program 1148/1173
  - 22.C Noise Monitoring
  - Quiet Mode Drilling Plan
  - 23.C Vibration Monitoring Plan - Quarterly
- 21. L Inspection and Maintenance Plan
- 28.D/40. Abandonments and Restoration
- 34.138/39 Transportation Plan
  - Onsite
  - City Roads
  - 17/34.F. Pipeline
- 28.A.1 Hazardous Materials
- 28.C Recycling Plan
- 28.D Removal

## Jordan, Sherry

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**From:** Rebecca Rona Tuttle <rebecca.rona@hotmail.com>  
**Sent:** Friday, June 21, 2013 2:46 PM  
**To:** Jordan, Sherry  
**Cc:** FrackFreeCulverCity GoogleGroup; Lauren Steiner  
**Subject:** Additional comment re. Culver City O&G Ordinance  
**Attachments:** CC\_OG\_DD\_Feedback-stmurray-20130621.doc

Dear Ms. Jordan:

As I explained when I appeared before you, the city attorney and others during a recent hearing, a significant factor inherent in oil and gas extraction, especially if this is increased, is greater wear and tear on the roads used by vehicles involved in these extraction processes. In the experience of other municipalities, the cost of additional maintenance has been staggering.

Therefore I recommend that the operator be mandated to reimburse the city for any road repair and associated costs above what would otherwise be expected. These figures no doubt can be ascertained by inspecting your records and taking into consideration any inflation.

Rebecca Rona

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From: rebecca.rona@hotmail.com  
To: sherry.jordan@culvercity.org  
CC: stephen@sunstruction.com; frackfreecc@googlegroups.com; laurensteiner57@gmail.com; susan.heitman@ca.rr.com  
Subject: Comments re. Culver City O&G Ordinance  
Date: Fri, 21 Jun 2013 14:12:58 -0700

Dear Ms. Jordan:

My comments are in support of both Tom Williams's recommendations and Stephan Murray's recommendations. Clearly both individuals are highly knowledgeable regarding gas and oil extraction methods, health and safety, and reporting methods.

Ideally there would be no oil or gas extraction in any form in the Inglewood Oil Field. Clearly any form of oil or gas extraction activity there is unsafe. However, if the city is intent on allowing extraction in some form, my suggestions follow.

I have attached Stephen Murray's comments here to ensure you realize which comments I am referencing.

In addition to Stephen and Tom's recommendations:

1. It is essential that there be an EIR that takes into consideration both the final Culver City ordinance and the oil company's proposed plans.

The Oil Field Regulations should reflect the requirements of the entire City, not just the small portion east of Jefferson. According to DOGGR, the Inglewood Oil Field extends through Culver City. I suggest use of an “urban limit line” which surrounds our residential, open space and commercial areas and extends downward. This limit line can define where the ordinance may have stricter requirements.

In general, aside from my concern with hydraulic fracturing, I don't believe the city infrastructure and aging housing structures can withstand the ground movement that occurs as a result of extraction and waterflooding. It may be that the City can't revoke the current land use easily, but we can at least place ongoing restrictions and prohibitions that protect the public Health and Safety as well as more accurately covering the activities real costs. Mitigation and prevention of these future problems must be addressed in any oil ordinance.

Notifications and communication with the public and transparency to the community director and other public officials needs to be instilled through the ordinance. There shouldn't have to be any guessing as to what processes they are using or spills that have occurred.

We need adequate setbacks for Drilling pump jacks from inhabited buildings and roads, plus permanently reserved space open space for the drilling equipment and any potentially needed fire equipment.

The City, our property holders and our residents need to be protected against incurring any fiscal demands from the oil field operations and transient operators. We need to demand a mix of insurance, transferable bonds and money in escrow to cover reasonable expected losses and damages. In addition, the subsurface property owners and royalty receivers (beneficiaries) need to be tied to assessments of property values and the adverse effects caused by leasees who extract the property's natural resources. In other words, the property holder who leases their subsurface mineral rights for oil and gas extraction also needs to be assessed parcel fees and/or taxes in order to help spread the costs amongst the responsible parties.

Below are a set of comments to the initial O&G discussion draft, These are in addition to the extended comments which are included within Tom Williams' document.

## PROHIBITIONS

- 1) Fracking should be prohibited within and beneath the City Limits.
- 2) Directional drilling beneath all residential portions of Culver City should be prohibited. The bottom well point must not extend greater than 400 ft from the top hole.
- 3) Existing wells are not to be allowed to be reworked in any manner that would change the horizontal location of any downhole, unless it was closer in proximity to the surface well bore.
- 4) Definitions of Hydraulic fracking, I'll give you 3, choose:
  - 1) “Hydraulic fracturing” shall mean an activity in which a liquid, chemicals, acid, gas, proppant or any other agent are pumped into a well bore at a rate sufficient to increase the pressure downhole to a value in excess of the fracture gradient of the formation rock, causing the formation rock to crack, dissolve or otherwise become porous thus allowing the fracturing fluid or agent to enter and extend the crack farther into the formation, forming passages through which natural gas, oil or other hydrocarbons can flow.
  - 2) “hydraulic fracturing” shall mean the injection of fluids or gases into an underground geologic formation with the intention to cause or enhance fractures in the formation, in order to cause or enhance the production of oil or gas from a well. Alternate terms include, but are not limited to, “fracking,” “hydrofracking,” and “hydrofracturing.”

3) "Fracking" shall include the terms "induced hydraulic fracturing," "hydrofracturing," "slickwater fracturing," and other related terms, and shall include any high-pressure well stimulation methods, including but not limited to hydraulic, vapor, steam, or gaseous fracturing, acidization, and other high pressure stimulation methods related to the exploration for, or extraction and production of, fossil fuels. The term shall also refer to all processes and activities, including "horizontal" or "directional" drilling, related to the exploration for, or extraction and production of, fossil fuels.

4) "High volume gravel packing" shall be considered a prohibited type of fracking.

5) Enhanced oil recovery techniques which inject acids, polymers, CO<sub>2</sub> or other chemicals or gasses should be prohibited unless demonstrable proof of safety is supplied.

5) Waste water injection wells shall be prohibited within City Limits. All Injection wells aside from Class II "enhanced recovery wells" are prohibited.

6) The "Culver City Defined oil field" is/are only those areas currently occupied by active surface wells, east of Jefferson.

7) Man-made ground movement in areas that are not within the "Culver City Defined Oil field", such as Culver Crest, Blair Hills is prohibited. Extraction and Water Flooding and other oil production activities which effect ground movement/subsidence are prohibited. Current operator will be strictly liable for damages and remediation.

8) Waterflooding (Class II "enhanced recovery wells" ) shall be restricted in pressures to only effect the land contained within the "Culver City defined Oil Field."

9) All annual drilling plans, if they include new wells or substantial rework of existing wells must be approved by a vote of the public. Fee for drilling plan submission shall include election costs and other management costs.

10) To monitor ground movement and subsidence due to extraction and waterflooding there needs to be real-time GPS monitors distributed throughout the city in a manner that reports on all critical movement within the Machado tract and within the limits of the the DOGGR defined "Inglewood Oil Field", as well as strategic locations outside the area including Blair hills, Culver Crest and the Culver City park and Ball Field. Data collected from monitors must be publicly available and accessible. Monitoring to be paid from escrow account from fee to operator.

## ZONING

11) Define an urban limit line around areas to be protected as urban residential or urban-safety zone; outside this area, the General Plan and Zoning (Development Code) ordinance by law would be followed strictly. Inside the limit line, the land use designations are followed even more strictly; requiring a vote of the public to change, for instance, if land is designated residential, commercial or open space, a developer CANNOT apply for a conditional use permit, zone change or general plan amendment without a vote of the public to approve the change. Waterflooding and extraction would be prohibited in this area unless a vote of the public approves it.

12) There are commonly height restrictions for Zoning, There needs to be depth restrictions: The residential no-drilling zone extends for 6 miles beneath the surface.

13) All commercial extraction of resources to a depth of 6 miles beneath all residential and commercially zoned areas should be prohibited.

14) Minimum 500ft setback from normally traveled portion of any public roads, highways, property lines, or buildings of all wells, containment facilities, reservoirs or storage tanks. Exceptions may be granted by public for preexisting environmental hazards.

15) All Well pads must have an unobstructed open space perimeter that extends 250 ft in each direction along the surface.



- 16) All roads must be graded and built in such a manner to minimize dust and debris. Roads must be accessible to emergency personnel and the community director.

## NOTIFICATIONS

- 17) Well sites and well operations may be subject to periodic and unannounced inspections by the community director or other individuals pre-assigned by the director or City Council.
- 18) If the community director or city council determines that any operation has an imminent anticipated threat to public health, safety or the environment, they have the right to compel the operator to take appropriate action to remediate within a specified time frame
- 19) Operator must report all chemicals used, including so called trade secrets to the Community director. The community director has authority to hold these as confidential documents but may be obligated to release these chemicals to relevant health agencies.
- 20) Notice of any hearing on the O&G operations should be mailed or delivered at least 10 business days prior to the hearing to all real property owners and residents.
- 21) A Community Awareness and Emergency Response plan (CAER), with required operator inputs, immediate emergency personnel and timely resident notification must be created and approved by the public.
- 22) Public notices and submission to the Community Director should be required for all of the following conditions 30 days prior to commencement of:
  - 1) change of well status from idle to producing or injection or any combination
  - 2) intention to engage in enhanced recovery or hydraulic fracturing operations
  - 3) full details of transfer of operator or ownership
  - 4) reportable oil or gas releases must be submitted to California Emergency Management Agency and other agencies in the oil spill contingency plan within 72 hours and to the Community director and Community Awareness and Emergency response (CAER) within 12 hours. Any required emergency personnel should be notified immediately upon discovery and assessment according to oil spill contingency plan.
  - 5) 10 days for: All DOGGR notices, permits, approvals, summaries relating to well drilling, abandonment, completion, rework shall also be submitted to community director.
  - 6) 10 days for: All citations, notices of correction or violations or notices of required changes by operator by DOGGR, or any federal, state, county or local agency.
  - 7) 10 days for: Any and all reports of DOGGR annual inspections
  - 8) A document submission policy which allows or demands the electronic submission or electronic links to filed needs to be created

## HEALTH/SAFETY REQUIREMENTS

- 23) Before any additional drilling takes place there must be continuous baseline testing of all our groundwater, air, ground movement, elevation, storm run-off, and soil throughout the City, not just at the surface well location. ..and this testing must continue while drilling and after with real-time results publicly available and easily accessible by anyone.
- 24) There needs to be public approved plans created and implemented with adequate funding for baseline, continuous and ongoing monitoring as well as post extraction phase testing for groundwater, air quality, microseismicity, noise, well integrity, storm water runoff.. and not just in the "field", but outside the field as well.
- 25) Baseline water quality testing and continuous monitoring by a public approved 3<sup>rd</sup> party must be performed a minimum distance of one mile as measured from the surface, from the farthest point of the well bore or well endpoint(s). Expenses to be paid via a fee to the operator
- 26) No waste gas venting or flaring is allowed. All gasses and liquids must be fully captured with adequately designed equipment. Each well site must follow zero emission standards. Local law

can be stricter and supersede DOGGR and EPA requirements

- 27) It shall be unlawful to dispose of any water, gas, mineral or other materials produced from or contaminated as a result of drilling operations in such a manner that may be injurious to humans, animals, plant life, soil or would pollute our air, soil or waterways irregardless of any permits issued by any other agency than the City.
- 28) "Pollute" or "Pollution" shall mean any such contamination, or other alteration of the physical, chemical, or biological properties of any surface, groundwater or air within the city, or such discharge of any liquid, gaseous or solid substance into any air, waters or surfaces within the City, or that flows or migrates into the City, as will create a nuisance or render such waters, air or surfaces harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life either in or downwind or down flow of the City.
- 29) All well drilling operations which may penetrate though any waterbearing strata shall not subject the groundwater basin or sub basin any contamination.
- 30) Each well site should have continuously monitoring air quality testing for methane and H2S. These monitors must broadcast real-time to the internet and the readings should be readily visible by anyone visiting, without need for website registration. Should measure H2S from 0ppm. Visible and auditory alarms should be installed and working to detect common oil filed gasses such as methane and H2S.
- 31) Building and residences within 500ft should have exterior monitors and 2 stage alarms for methane and H2S. H2S concentration of of 20ppm & 100ppm.
- 32) All Drilling rig underground chambers should be "permit required confined spaces." and have permanently installed forced ventilation systems.
- 33) Respiratory protection and personal protective equipment, rescue, and communication equipment should be accessible within 500ft of all active well heads in publicly accessible , clearly marked and locations for use by rescue personnel and trained operators. PPE should include at a minimum:
  - a. A full face-piece pressure-demand self-contained breathing apparatus (SCBA) with a minimum service life of thirty minutes, or
  - b. A combination full face-piece pressure-demand supplied-air respirator with an auxiliary self-contained air supply.
  - c. An full face-piece air-purifying respirator with a filter cartridge/canister appropriate for hydrogen sulfide.
- 34) Oil Field safety training should be provided and offered to police, fire, rescue as well as park personnel, neighboring residents, businesses and community members. Training should be performed annually.

#### OWNERSHIP AND LIABILITY

- 35) Property holders who lease their subsurface mineral rights for extraction should also be held liable in addition to the oil operator for damages and undergo an assessment tax or fee to offset mitigation and oil field oversight.
- 36) The operator is strictly liable for any and all ground movement or subsidence. Any movement in excess of 1 inch as a result of oil extraction or water flooding anywhere within the city shall be prohibited.
- 37) Operator is strictly liable for any damaged caused by induced seismicity from any oil field operations.
- 38) Prior to any permits for extraction or waterflooding activity a 25 year subsidence and abandonment mitigation plan must be submitted whose implementation is fully funded through

an escrow account.

- 39) All operators should carry a minimum of \$10M insurance per well, per incident. The city should be named as additional insured and the policy of insurance shall provide the City a 25 year notice of cancellation.

#### VESTED RIGHTS/NON CONFORMING

- 40) There are no vested rights to conduct drilling operations with any well or well pad that has been idle or abandoned prior to the adoption of this ordinance.
- 41) Any new, changed or modified method of secondary or enhanced recovery or the use of hydraulic fracking, including high volume gravel packing, shall be deemed a substantial change which would require an new amendment to a conditional use permit.
- 42) Legal non-conforming oil/gas operation shall not be expanded or altered without full compliance with this o&G chapter.

#### SPECIFIC EDITS TO DISCUSSION DRAFT

Below are sections with relevant changes. I've used strikeouts for removals and green for additions. most of these are reporting requirements.

##### Section 21 **Air Quality, Public Health and Climate Change**

1. **Plan/Element.** Operator shall submit an Air Monitoring Plan or Element to be reviewed and approved or conditionally approved **by the public and** the Community Development Director. The Air Monitoring Plan shall include any measure requested by the Community Development Director. The Plan shall be designed to ensure public health and safety through the reduction in air toxics and odorous emissions and reduce greenhouse gas emissions from Oil Operations. The Plan shall also specify the number, type and location of monitors that will be used, and provide detailed information concerning the reliability of the instrumentation, frequency <<<< of calibration and other similar information. The Air Monitoring Plan shall also be designed to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations within the Oil Field, and endeavor to determine and distinguish the source of emissions, to the extent feasible, using available and affordable monitoring technology. Additionally, air monitoring **is may also be** required ~~as requested by the Community Development Director~~ along the Outer Boundary of the Oil Field to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations in the portion of the Inglewood Oil Field under the jurisdiction of Los Angeles County. During drilling, redrilling, **reworking** or maintenance operations, the Operator shall monitor for hydrogen sulfide and total hydrocarbon vapors as specified in the approved Plan. Hydrogen sulfide shall also be **continuously** monitored using fixed or mobile monitoring equipment. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis** ~~in response to odor complaints from the public or when onsite odors are encountered by operating personnel.~~ Total hydrocarbon vapors shall be monitored, so as to exceed the requirements of SCAQMD Rules 1148 and 1173, using monitoring equipment at locations surrounding the wells, tanks, piping, piping components, etc. at the locations and frequencies, no less frequent than quarterly, that shall be based on air quality modeling and/or specified in the approved Plan. The approved monitors shall provide automatic alarms that are triggered by the detection of hydrogen sulfide or total hydrocarbon vapors at levels designated in the approved Plan. For drilling, redrilling, **reworking** operations, or maintenance monitors, the alarms shall be audible and/or visible to the person operating the drilling, redrilling, **reworking**, operating, or maintenance equipment. When specified alarm levels are reached, the following actions shall be taken:

#### **SECTION 22. NOISE ATTENUATION.**

##### **A. Noise Limits.**

1. All Oil Operations on the Oil Field shall comply with the noise provisions of the CCMC Title 9, Chapter 9.07 (Noise Regulations). In the event there are any inconsistencies between Chapter 9.07 and the provisions of this Ordinance, this Ordinance shall take precedence for Oil Operations.
2. Hourly, A-weighted equivalent noise levels associated with well drilling, redrilling, **reworking** and

maintenance shall not elevate existing baseline levels by more than five dBA during daytime hours (7:00 am to 10:00 pm).

3. Operator shall limit the night time (10:00 p.m. to 7:00 a.m.) noise levels at any sensitive receptor to **no more than three dBA** above a one-hour baseline average for the defined nighttime period. If Operator violates the above noise requirements, Operator shall identify the source of the noise and take steps necessary to assure compliance with this subsection.
4. If well drilling, redrilling, **reworking** and maintenance operations elevate nighttime baseline noise levels by **more than 10dBA for more than 15 minutes in any one hour, as independently verified and determined by the City**, the Operator, in consultation with the City, shall identify the cause and source of the noise and takes steps to avoid such extended periods of noise elevation in the future.
5. Noise produced by Oil Operations shall include no pure tones when measured beyond the Outer Boundary or, for other locations, as determined by the Public Works Director/City Engineer.

....

**K. Monitoring.** The Operator shall employ an independent qualified acoustical engineer, approved by the Public Works Director/City Engineer to install equipment to continuously monitor and digitally record noise levels at and near the Oil Field or Drilling Project location. Such monitors shall be placed at locations and for the frequency and duration identified by the Public Works Director/City Engineer and shall include adjacent sensitive receptor locations and at locations where complaints were received regarding Drilling Project activities. The results of all monitoring shall be submitted to the Public Works Director/City Engineer on a quarterly basis. The monitoring required by this subsection shall be implemented no later than 180 days following the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.**

#### Section 23 **Vibration Reduction**

**C.** The Operator shall hire an independent qualified engineer, approved by the Public Works Director/City Engineer, to install equipment to **continuously monitor and digitally record vibration levels at the Outer Boundary.** Such monitors shall be placed at locations selected by the Public Works Director/City Engineer. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.**

#### Section 48 **Injection Wells**

Existing **Injection Wells** must comply with all DOGGR requirements, including sealing and casing integrity, prior to use. **Injection Wells** shall be properly Abandoned according to DOGGR requirements. **Injection wells are prohibited from permanent storage. All Injection wells aside form Class II "enhanced recovery wells are prohibited.**

#### **SECTION 49. ABANDONED WELL TESTING.**

The Operator shall conduct quarterly testing of abandoned wells for hydrocarbon vapor **and fluid** leaks. The first quarterly testing shall be completed within 120 days of the Effective Date. The procedures and equipment for such testing shall be reviewed and approved by the Public Works Director/City Engineer. Abandoned wells that are found to be leaking hydrocarbons shall be reported to the Public Works Director/City Engineer and

#### Section 55 **Complaints**

All complaints related to Oil Operations received by the Operator shall be reported on the same business day to the Community Development Director and Fire Chief. Notification of complaints relating to immediate life safety issues shall be made to the affected emergency response agencies no later than 30 minutes after receiving the complaint. In addition, the Operator shall maintain a written log of all complaints and provide that log to the Community Development Director and Fire Chief and other interested parties (i.e. community groups or other interest groups) as identified by the City on a quarterly basis. Depending upon the nature of the complaint, the Operator shall report the complaint to SCAQMD, DOGGR, and any other appropriate agencies with oversight authority regarding the complaint at issue. If the complaint is received after normal

business hours, it shall be reported to the Community Development Director and Fire Chief and the agencies at the opening of the next business day. The results of all such complaints shall include quarterly reports and real-time, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.

2. In slight contrast to Stephen's recommended definitions, I suggest avoiding the term "fracking" and instead using "land fracturing" to indicate what is fractured rather than the method by which the fracturing occurs, since there are a number of different processes by which this could take place. I would revise Stephen's definition as follows:

Land fracturing (or "fracturing") shall be understood to include "induced hydraulic fracturing," "hydrofracturing," "slickwater fracturing," "high volume gravel packing," any other similar terms and any methods that could be developed in the future, and shall include any high-pressure well stimulation methods, including but not limited to hydraulic, vapor, steam, or gaseous fracturing, acidization, and other high pressure stimulation methods related to the exploration for, or extraction and production of, fossil fuels. The term shall also refer to all processes and activities, including "horizontal" or "directional" drilling, related to the exploration for, or extraction and production of, fossil fuels.

3. Since oil and gas operations are clearly the greatest safety challenge faced by Culver City, it is essential to either create a section on the Culver City website devoted to fracturing that includes all the reports recommended by Stephen and Tom OR create a stand-alone website for this purpose. If the city website is employed, there should be a button on the homepage, making it obvious to website visitors how to easily access information. Regardless of whether the city website or a stand-alone website is employed, the city should make a point of reminding residents of the existence of this information by placing ads in the Culver City print and online publications on a quarterly basis.

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Thank you for taking these recommendations into consideration.

Sincerely,

Rebecca Rona-Tuttle  
11659 McDonald St.  
Culver City, CA 90230  
(310) 486-4630

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## Jordan, Sherry

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**From:** Rebecca Rona Tuttle <rebecca.rona@hotmail.com>  
**Sent:** Friday, June 21, 2013 2:13 PM  
**To:** Jordan, Sherry  
**Cc:** Stephen Murray; FrackFreeCulverCity GoogleGroup; Lauren Steiner; susan.heitman@ca.rr.com  
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- 3) Existing wells are not to be allowed to be reworked in any manner that would change the horizontal location of any downhole, unless it was closer in proximity to the surface well bore.
- 4) Definitions of Hydraulic fracking, I'll give you 3, choose:
  - 1) “Hydraulic fracturing” shall mean an activity in which a liquid, chemicals, acid, gas, proppant or any other agent are pumped into a well bore at a rate sufficient to increase the pressure downhole to a value in excess of the fracture gradient of the formation rock, causing the formation rock to crack, dissolve or otherwise become porous thus allowing the fracturing fluid or agent to enter and extend the crack farther into the formation, forming passages through which natural gas, oil or other hydrocarbons can flow.
  - 2) “hydraulic fracturing” shall mean the injection of fluids or gases into an underground geologic formation with the intention to cause or enhance fractures in the formation, in order to cause or enhance the production of oil or gas from a well. Alternate terms include, but are not limited to, “fracking,” “hydrofracking,” and “hydrofracturing.”

3) "Fracking" shall include the terms "induced hydraulic fracturing," "hydrofracturing," "slickwater fracturing," and other related terms, and shall include any high-pressure well stimulation methods, including but not limited to hydraulic, vapor, steam, or gaseous fracturing, acidization, and other high pressure stimulation methods related to the exploration for, or extraction and production of, fossil fuels. The term shall also refer to all processes and activities, including "horizontal" or "directional" drilling, related to the exploration for, or extraction and production of, fossil fuels.

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5) Enhanced oil recovery techniques which inject acids, polymers, CO<sub>2</sub> or other chemicals or gasses should be prohibited unless demonstrable proof of safety is supplied.

5) Waste water injection wells shall be prohibited within City Limits. All Injection wells aside from Class II "enhanced recovery wells" are prohibited.

6) The "Culver City Defined oil field" is/are only those areas currently occupied by active surface wells, east of Jefferson.

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9) All annual drilling plans, if they include new wells or substantial rework of existing wells must be approved by a vote of the public. Fee for drilling plan submission shall include election costs and other management costs.

10) To monitor ground movement and subsidence due to extraction and waterflooding there needs to be real-time GPS monitors distributed throughout the city in a manner that reports on all critical movement within the Machado tract and within the limits of the the DOGGR defined "Inglewood Oil Field", as well as strategic locations outside the area including Blair hills, Culver Crest and the Culver City park and Ball Field. Data collected from monitors must be publicly available and accessible. Monitoring to be paid from escrow account from fee to operator.

## ZONING

11) Define an urban limit line around areas to be protected as urban residential or urban-safety zone; outside this area, the General Plan and Zoning (Development Code) ordinance by law would be followed strictly. Inside the limit line, the land use designations are followed even more strictly; requiring a vote of the public to change, for instance, if land is designated residential, commercial or open space, a developer CANNOT apply for a conditional use permit, zone change or general plan amendment without a vote of the public to approve the change. Waterflooding and extraction would be prohibited in this area unless a vote of the public approves it.

12) There are commonly height restrictions for Zoning, There needs to be depth restrictions: The residential no-drilling zone extends for 6 miles beneath the surface.

13) All commercial extraction of resources to a depth of 6 miles beneath all residential and commercially zoned areas should be prohibited.

14) Minimum 500ft setback from normally traveled portion of any public roads, highways, property lines, or buildings of all wells, containment facilities, reservoirs or storage tanks. Exceptions may be granted by public for preexisting environmental hazards.

15) All Well pads must have an unobstructed open space perimeter that extends 250 ft in each direction along the surface.

- 16) All roads must be graded and built in such a manner to minimize dust and debris. Roads must be accessible to emergency personnel and the community director.

## NOTIFICATIONS

- 17) Well sites and well operations may be subject to periodic and unannounced inspections by the community director or other individuals pre-assigned by the director or City Council.
- 18) If the community director or city council determines that any operation has an imminent anticipated threat to public health, safety or the environment, they have the right to compel the operator to take appropriate action to remediate within a specified time frame
- 19) Operator must report all chemicals used, including so called trade secrets to the Community director. The community director has authority to hold these as confidential documents but may be obligated to release these chemicals to relevant health agencies.
- 20) Notice of any hearing on the O&G operations should be mailed or delivered at least 10 business days prior to the hearing to all real property owners and residents.
- 21) A Community Awareness and Emergency Response plan (CAER), with required operator inputs, immediate emergency personnel and timely resident notification must be created and approved by the public.
- 22) Public notices and submission to the Community Director should be required for all of the following conditions 30 days prior to commencement of:
  - 1) change of well status from idle to producing or injection or any combination
  - 2) intention to engage in enhanced recovery or hydraulic fracturing operations
  - 3) full details of transfer of operator or ownership
  - 4) reportable oil or gas releases must be submitted to California Emergency Management Agency and other agencies in the oil spill contingency plan within 72 hours and to the Community director and Community Awareness and Emergency response (CAER) within 12 hours. Any required emergency personnel should be notified immediately upon discovery and assessment according to oil spill contingency plan.
  - 5) 10 days for: All DOGGR notices, permits, approvals, summaries relating to well drilling, abandonment, completion, rework shall also be submitted to community director.
  - 6) 10 days for: All citations, notices of correction or violations or notices of required changes by operator by DOGGR, or any federal, state, county or local agency.
  - 7) 10 days for: Any and all reports of DOGGR annual inspections
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- 23) Before any additional drilling takes place there must be continuous baseline testing of all our groundwater, air, ground movement, elevation, storm run-off, and soil throughout the City, not just at the surface well location. ..and this testing must continue while drilling and after with real-time results publicly available and easily accessible by anyone.
- 24) There needs to be public approved plans created and implemented with adequate funding for baseline, continuous and ongoing monitoring as well as post extraction phase testing for groundwater, air quality, microseismicity, noise, well integrity, storm water runoff.. and not just in the "field", but outside the field as well.
- 25) Baseline water quality testing and continuous monitoring by a public approved 3<sup>rd</sup> party must be performed a minimum distance of one mile as measured from the surface, from the farthest point of the well bore or well endpoint(s). Expenses to be paid via a fee to the operator
- 26) No waste gas venting or flaring is allowed. All gasses and liquids must be fully captured with adequately designed equipment. Each well site must follow zero emission standards. Local law

can be stricter and supersede DOGGR and EPA requirements

- 27) It shall be unlawful to dispose of any water, gas, mineral or other materials produced from or contaminated as a result of drilling operations in such a manner that may be injurious to humans, animals, plant life, soil or would pollute our air, soil or waterways irregardless of any permits issued by any other agency than the City.
- 28) "Pollute" or "Pollution" shall mean any such contamination, or other alteration of the physical, chemical, or biological properties of any surface, groundwater or air within the city, or such discharge of any liquid, gaseous or solid substance into any air, waters or surfaces within the City, or that flows or migrates into the City, as will create a nuisance or render such waters, air or surfaces harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life either in or downwind or down flow of the City.
- 29) All well drilling operations which may penetrate though any waterbearing strata shall not subject the groundwater basin or sub basin any contamination.
- 30) Each well site should have continuously monitoring air quality testing for methane and H2S. These monitors must broadcast real-time to the internet and the readings should be readily visible by anyone visiting, without need for website registration. Should measure H2S from 0ppm. Visible and auditory alarms should be installed and working to detect common oil filed gasses such as methane and H2S.
- 31) Building and residences within 500ft should have exterior monitors and 2 stage alarms for methane and H2S. H2S concentration of of 20ppm & 100ppm.
- 32) All Drilling rig underground chambers should be "permit required confined spaces." and have permanently installed forced ventilation systems.
- 33) Respiratory protection and personal protective equipment, rescue, and communication equipment should be accessible within 500ft of all active well heads in publicly accessible , clearly marked and locations for use by rescue personnel and trained operators. PPE should include at a minimum:
  - a. A full face-piece pressure-demand self-contained breathing apparatus (SCBA) with a minimum service life of thirty minutes, or
  - b. A combination full face-piece pressure-demand supplied-air respirator with an auxiliary self-contained air supply.
  - c. An full face-piece air-purifying respirator with a filter cartridge/canister appropriate for hydrogen sulfide.
- 34) Oil Field safety training should be provided and offered to police, fire, rescue as well as park personnel, neighboring residents, businesses and community members. Training should be performed annually.

#### OWNERSHIP AND LIABILITY

- 35) Property holders who lease their subsurface mineral rights for extraction should also be held liable in addition to the oil operator for damages and undergo an assessment tax or fee to offset mitigation and oil field oversight.
- 36) The operator is strictly liable for any and all ground movement or subsidence. Any movement in excess of 1 inch as a result of oil extraction or water flooding anywhere within the city shall be prohibited.
- 37) Operator is strictly liable for any damaged caused by induced seismicity from any oil field operations.
- 38) Prior to any permits for extraction or waterflooding activity a 25 year subsidence and abandonment mitigation plan must be submitted whose implementation is fully funded through

an escrow account.

- 39) All operators should carry a minimum of \$10M insurance per well, per incident. The city should be named as additional insured and the policy of insurance shall provide the City a 25 year notice of cancellation.

#### VESTED RIGHTS/NON CONFORMING

- 40) There are no vested rights to conduct drilling operations with any well or well pad that has been idle or abandoned prior to the adoption of this ordinance.
- 41) Any new, changed or modified method of secondary or enhanced recovery or the use of hydraulic fracking, including high volume gravel packing, shall be deemed a substantial change which would require an new amendment to a conditional use permit.
- 42) Legal non-conforming oil/gas operation shall not be expanded or altered without full compliance with this o&G chapter.

#### SPECIFIC EDITS TO DISCUSSION DRAFT

Below are sections with relevant changes. I've used strikeouts for removals and green for additions. most of these are reporting requirements.

##### Section 21 **Air Quality, Public Health and Climate Change**

1. **Plan/Element.** Operator shall submit an Air Monitoring Plan or Element to be reviewed and approved or conditionally approved **by the public and** the Community Development Director. The Air Monitoring Plan shall include any measure requested by the Community Development Director. The Plan shall be designed to ensure public health and safety through the reduction in air toxics and odorous emissions and reduce greenhouse gas emissions from Oil Operations. The Plan shall also specify the number, type and location of monitors that will be used, and provide detailed information concerning the reliability of the instrumentation, frequency <<<< of calibration and other similar information. The Air Monitoring Plan shall also be designed to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations within the Oil Field, and endeavor to determine and distinguish the source of emissions, to the extent feasible, using available and affordable monitoring technology. Additionally, air monitoring **is may also be** required ~~as requested by the Community Development Director~~ along the Outer Boundary of the Oil Field to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations in the portion of the Inglewood Oil Field under the jurisdiction of Los Angeles County. During drilling, redrilling, **reworking** or maintenance operations, the Operator shall monitor for hydrogen sulfide and total hydrocarbon vapors as specified in the approved Plan. Hydrogen sulfide shall also be **continuously** monitored using fixed or mobile monitoring equipment. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis** ~~in response to odor complaints from the public or when onsite odors are encountered by operating personnel.~~ Total hydrocarbon vapors shall be monitored, so as to exceed the requirements of SCAQMD Rules 1148 and 1173, using monitoring equipment at locations surrounding the wells, tanks, piping, piping components, etc. at the locations and frequencies, no less frequent than quarterly, that shall be based on air quality modeling and/or specified in the approved Plan. The approved monitors shall provide automatic alarms that are triggered by the detection of hydrogen sulfide or total hydrocarbon vapors at levels designated in the approved Plan. For drilling, redrilling, **reworking** operations, or maintenance monitors, the alarms shall be audible and/or visible to the person operating the drilling, redrilling, **reworking**, operating, or maintenance equipment. When specified alarm levels are reached, the following actions shall be taken:

#### **SECTION 22. NOISE ATTENUATION.**

##### **A. Noise Limits.**

1. All Oil Operations on the Oil Field shall comply with the noise provisions of the CCMC Title 9, Chapter 9.07 (Noise Regulations). In the event there are any inconsistencies between Chapter 9.07 and the provisions of this Ordinance, this Ordinance shall take precedence for Oil Operations.
2. Hourly, A-weighted equivalent noise levels associated with well drilling, redrilling, **reworking** and

maintenance shall not elevate existing baseline levels by more than five dBA during daytime hours (7:00 am to 10:00 pm).

3. Operator shall limit the night time (10:00 p.m. to 7:00 a.m.) noise levels at any sensitive receptor to **no more than three dBA** above a one-hour baseline average for the defined nighttime period. If Operator violates the above noise requirements, Operator shall identify the source of the noise and take steps necessary to assure compliance with this subsection.
4. If well drilling, redrilling, **reworking** and maintenance operations elevate nighttime baseline noise levels by **more than 10dBA for more than 15 minutes in any one hour, as independently verified and determined by the City**, the Operator, in consultation with the City, shall identify the cause and source of the noise and takes steps to avoid such extended periods of noise elevation in the future.
5. Noise produced by Oil Operations shall include no pure tones when measured beyond the Outer Boundary or, for other locations, as determined by the Public Works Director/City Engineer.

....

**K. Monitoring.** The Operator shall employ an independent qualified acoustical engineer, approved by the Public Works Director/City Engineer to install equipment to continuously monitor and digitally record noise levels at and near the Oil Field or Drilling Project location. Such monitors shall be placed at locations and for the frequency and duration identified by the Public Works Director/City Engineer and shall include adjacent sensitive receptor locations and at locations where complaints were received regarding Drilling Project activities. The results of all monitoring shall be submitted to the Public Works Director/City Engineer on a quarterly basis. The monitoring required by this subsection shall be implemented no later than 180 days following the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.**

#### Section 23 **Vibration Reduction**

**C.** The Operator shall hire an independent qualified engineer, approved by the Public Works Director/City Engineer, to install equipment to **continuously monitor and digitally record vibration levels at the Outer Boundary.** Such monitors shall be placed at locations selected by the Public Works Director/City Engineer. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.**

#### Section 48 **Injection Wells**

Existing **Injection Wells** must comply with all DOGGR requirements, including sealing and casing integrity, prior to use. **Injection Wells** shall be properly Abandoned according to DOGGR requirements. **Injection wells are prohibited from permanent storage. All Injection wells aside form Class II "enhanced recovery wells are prohibited.**

#### **SECTION 49. ABANDONED WELL TESTING.**

The Operator shall conduct quarterly testing of abandoned wells for hydrocarbon vapor **and fluid** leaks. The first quarterly testing shall be completed within 120 days of the Effective Date. The procedures and equipment for such testing shall be reviewed and approved by the Public Works Director/City Engineer. Abandoned wells that are found to be leaking hydrocarbons shall be reported to the Public Works Director/City Engineer and

#### Section 55 **Complaints**

All complaints related to Oil Operations received by the Operator shall be reported on the same business day to the Community Development Director and Fire Chief. Notification of complaints relating to immediate life safety issues shall be made to the affected emergency response agencies no later than 30 minutes after receiving the complaint. In addition, the Operator shall maintain a written log of all complaints and provide that log to the Community Development Director and Fire Chief and other interested parties (i.e. community groups or other interest groups) as identified by the City on a quarterly basis. Depending upon the nature of the complaint, the Operator shall report the complaint to SCAQMD, DOGGR, and any other appropriate agencies with oversight authority regarding the complaint at issue. If the complaint is received after normal

business hours, it shall be reported to the Community Development Director and Fire Chief and the agencies at the opening of the next business day. The results of all such complaints shall include quarterly reports and real-time, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.

## Jordan, Sherry

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**From:** Stephen Murray <Stephen@BaldwinHillsOilWatch.org>  
**Sent:** Friday, June 21, 2013 2:02 PM  
**To:** Jordan, Sherry  
**Cc:** Stephen Murray  
**Subject:** Re: Discussion Draft feedback  
**Attachments:** CC\_OG\_DD\_Feedback-stmurray-20130621.doc

Something tells me that you might be busy today, so in the event that you can't acknowledge acceptance in a timely manner, I'm resending this with a return receipt.

thanks

On 6/21/2013 1:45 PM, Stephen Murray wrote:

> Good Afternoon Sherry,  
> Attached you can find my feedback to the oil & Gas discussion draft.  
> Let me know if you have any trouble opening this.  
>  
> Also I support, as an individual and as the Director of Baldwin Hills  
> Oil Watch, The current and soon to be submitted version of Dr Tom  
> William's feedback. Dr Tom Williams is an aggregate of comments from  
> many of us.  
>  
> thanks.  
>

--

Stephen Murray  
424.258.0274

BaldwinHillsOilWatch.org  
BAN Fracking now!



The Oil Field Regulations should reflect the requirements of the entire City, not just the small portion east of Jefferson. According to DOGGR, the Inglewood Oil Field extends through Culver City. I suggest use of an “urban limit line” which surrounds our residential, open space and commercial areas and extends downward. This limit line can define where the ordinance may have stricter requirements.

In general, aside from my concern with hydraulic fracturing, I don't believe the city infrastructure and aging housing structures can withstand the ground movement that occurs as a result of extraction and waterflooding. It may be that the City can't revoke the current land use easily, but we can at least place ongoing restrictions and prohibitions that protect the public Health and Safety as well as more accurately covering the activities real costs. Mitigation and prevention of these future problems must be addressed in any oil ordinance.

Notifications and communication with the public and transparency to the community director and other public officials needs to be instilled through the ordinance. There shouldn't have to be any guessing as to what processes they are using or spills that have occurred.

We need adequate setbacks for Drilling pump jacks from inhabited buildings and roads, plus permanently reserved space open space for the drilling equipment and any potentially needed fire equipment.

The City, our property holders and our residents need to be protected against incurring any fiscal demands from the oil field operations and transient operators. We need to demand a mix of insurance, transferable bonds and money in escrow to cover reasonable expected losses and damages. In addition, the subsurface property owners and royalty receivers (beneficiaries) need to be tied to assessments of property values and the adverse effects caused by leasees who extract the property's natural resources. In other words, the property holder who leases their subsurface mineral rights for oil and gas extraction also needs to be assessed parcel fees and/or taxes in order to help spread the costs amongst the responsible parties.

Below are a set of comments to the initial O&G discussion draft, These are in addition to the extended comments which are included within Tom Williams' document.

## PROHIBITIONS

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- 37) Operator is strictly liable for any damages caused as a result of induced seismicity from any oil field operations.

- 38) The operator of any well in the City is assumed to be the operator of all wells of the City, unless another operator is assigned by DOGGR. Such Operator is responsible and assumes all liability of all abandoned, plugged, idle and confidential wells within the City. Assignment of responsibility doesn't give the operator a right to convert the well from inactive to active, but it does require the operator to verify that all wells are properly abandoned according to DOGGR standards and remediate at operator's expense if not.
- 39) Prior to any permits for extraction or injecting activity a 25-year subsidence and abandonment mitigation plan for each well must be submitted whose implementation is fully funded through an escrow account.
- 40) All operators should carry a minimum of \$5M insurance per well, per incident. The city should be named as additional insured and the policy of insurance shall provide the City a 25-year notice of cancellation.

#### VESTED RIGHTS/NON CONFORMING

- 41) There are no vested rights to conduct drilling operations with any well or well pad that has been idle, plugged or abandoned prior to the adoption of this ordinance.
- 42) "plugged and abandoned well" is a well considered "plugged and abandoned" by DOGGR as evidenced by the issuance of a report of well abandonment and which has complied with all the provisions of this Chapter.
- 43) Any new, changed or modified method of secondary or enhanced recovery or the use of hydraulic fracking, including high volume gravel packing, shall be deemed a substantial change which would require a new amendment to a conditional use permit.
- 44) Legal non-conforming oil/gas operation shall not be expanded or altered without full compliance with this o&G chapter.

#### SPECIFIC EDITS TO DISCUSSION DRAFT

Below are sections with relevant changes. I've used strikeouts for removals and green for additions. most of these are reporting requirements.

##### Section 21 **Air Quality, Public Health and Climate Change**

1. **Plan/Element.** Operator shall submit an Air Monitoring Plan or Element to be reviewed and approved or conditionally approved **by the public and** the Community Development Director. The Air Monitoring Plan shall include any measure requested by the Community Development Director. The Plan shall be designed to ensure public health and safety through the reduction in air toxics and odorous emissions and reduce greenhouse gas emissions from Oil Operations. The Plan shall also specify the number, type and location of monitors that will be used, and provide detailed information concerning the reliability of the instrumentation, frequency <<<< of calibration and other similar information. The Air Monitoring Plan shall also be designed to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations within the Oil Field, and endeavor to determine and distinguish the source of emissions, to the extent feasible, using available and affordable monitoring technology. Additionally, air monitoring **is may also be** required ~~as requested by the Community Development Director~~ along the Outer Boundary of the Oil Field to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations in the portion of the Inglewood Oil Field under the jurisdiction of Los Angeles County. During drilling, redrilling, **reworking** or maintenance operations, the Operator shall monitor for hydrogen sulfide and total hydrocarbon vapors as specified in the approved Plan. Hydrogen sulfide shall also be **continuously** monitored using fixed or mobile monitoring equipment. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.** ~~in response to odor complaints from the public or when onsite odors are encountered by operating personnel.~~ Total hydrocarbon vapors shall be monitored, so as to exceed the requirements of SCAQMD Rules 1148 and 1173, using monitoring

equipment at locations surrounding the wells, tanks, piping, piping components, etc. at the locations and frequencies, no less frequent than quarterly, that shall be based on air quality modeling and/or specified in the approved Plan. The approved monitors shall provide automatic alarms that are triggered by the detection of hydrogen sulfide or total hydrocarbon vapors at levels designated in the approved Plan. For drilling, redrilling, **reworking** operations, or maintenance monitors, the alarms shall be audible and/or visible to the person operating the drilling, redrilling, **reworking**, operating, or maintenance equipment. When specified alarm levels are reached, the following actions shall be taken:

## SECTION 22. NOISE ATTENUATION.

### A. Noise Limits.

1. All Oil Operations on the Oil Field shall comply with the noise provisions of the CCMC Title 9, Chapter 9.07 (Noise Regulations). In the event there are any inconsistencies between Chapter 9.07 and the provisions of this Ordinance, this Ordinance shall take precedence for Oil Operations.
2. Hourly, A-weighted equivalent noise levels associated with well drilling, redrilling, **reworking** and maintenance shall not elevate existing baseline levels by more than five dBA during daytime hours (7:00 am to 10:00 pm).
3. Operator shall limit the night time (10:00 p.m. to 7:00 a.m.) noise levels at any sensitive receptor to **no more than three dBA** above a one-hour baseline average for the defined nighttime period. If Operator violates the above noise requirements, Operator shall identify the source of the noise and take steps necessary to assure compliance with this subsection.
4. If well drilling, redrilling, **reworking** and maintenance operations elevate nighttime baseline noise levels by **more than 10dBA for more than 15 minutes in any one hour, as independently verified and determined by the City**, the Operator, in consultation with the City, shall identify the cause and source of the noise and takes steps to avoid such extended periods of noise elevation in the future.
5. Noise produced by Oil Operations shall include no pure tones when measured beyond the Outer Boundary or, for other locations, as determined by the Public Works Director/City Engineer.

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**K. Monitoring.** The Operator shall employ an independent qualified acoustical engineer, approved by the Public Works Director/City Engineer to install equipment to continuously monitor and digitally record noise levels at and near the Oil Field or Drilling Project location. Such monitors shall be placed at locations and for the frequency and duration identified by the Public Works Director/City Engineer and shall include adjacent sensitive receptor locations and at locations where complaints were received regarding Drilling Project activities. The results of all monitoring shall be submitted to the Public Works Director/City Engineer on a quarterly basis. The monitoring required by this subsection shall be implemented no later than 180 days following the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.**

## Section 23 **Vibration Reduction**

**C.** The Operator shall hire an independent qualified engineer, approved by the Public Works Director/City Engineer, to install equipment to **continuously monitor and digitally record vibration levels at the Outer Boundary.** Such monitors shall be placed at locations selected by the Public Works Director/City Engineer. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.**

## Section 48 **Injection Wells**

Existing **Injection Wells** must comply with all DOGGR requirements, including sealing and casing integrity, prior to use. **Injection Wells** shall be properly Abandoned according to DOGGR requirements. **Injection wells are prohibited from permanent storage. All Injection wells aside from Class II "enhanced recovery wells are prohibited.**

## SECTION 49. ABANDONED WELL TESTING.

The Operator shall conduct quarterly testing of abandoned wells for hydrocarbon vapor **and fluid** leaks. The first quarterly testing shall be completed within 120 days of the Effective Date. The procedures and equipment

for such testing shall be reviewed and approved by the Public Works Director/City Engineer. Abandoned wells that are found to be leaking hydrocarbons shall be reported to the Public Works Director/City Engineer and

#### Section 55 **Complaints**

All complaints related to Oil Operations received by the Operator shall be reported on the same business day to the Community Development Director and Fire Chief. Notification of complaints relating to immediate life safety issues shall be made to the affected emergency response agencies no later than 30 minutes after receiving the complaint. In addition, the Operator shall maintain a written log of all complaints and provide that log to the Community Development Director and Fire Chief and other interested parties (i.e. community groups or other interest groups) as identified by the City on a quarterly basis. Depending upon the nature of the complaint, the Operator shall report the complaint to SCAQMD, DOGGR, and any other appropriate agencies with oversight authority regarding the complaint at issue. If the complaint is received after normal business hours, it shall be reported to the Community Development Director and Fire Chief and the agencies at the opening of the next business day. **The results of all such complaints shall include quarterly reports and real-time, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.**

## Jordan, Sherry

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**From:** Barbara Hope <bhope@wgn.net>  
**Sent:** Friday, June 21, 2013 1:36 PM  
**To:** Jordan, Sherry  
**Subject:** Culver City O&G Comments

Dear Ms. Jordan -

I write in support of the statement by Dr. Tom Williams, Sierra Club oil advisor, who has provided detailed comments which would immensely improve Culver City's draft ordinance regarding oil regulations for the City.

Attached herewith is a link to Dr. Williams' statements:

<http://baldwinhillsoilwatch.org/action-center/regulations-well-designs-and-construction-for-hydraulic-fracturing/>

Fracking will impact Culver City and its residents in many ways, one of which will be seriously impaired health, as well as creating critical environmental issues.

Thank you for your kind consideration.

Barbara Hope  
4040 La Salle Ave #4  
Culver City, CA 90232-3288  
310 841 2011



## Jordan, Sherry

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**From:** michelle weiner <michmobile2011@gmail.com>  
**Sent:** Friday, June 21, 2013 12:58 PM  
**To:** Jordan, Sherry  
**Cc:** Sahli-Wells, Meghan  
**Subject:** CC Oil Field Regulations feedback  
**Attachments:** CC\_OG\_DD\_.doc

Dear Sherry-

First, thank you for all the work you have done to keep abreast of the latest information about oil and gas operations, so that we can be protected from health and safety threats.

I support the comments of Tom Williams. I have read them and understand that items outlined represent many details that add up to a comprehensive set of regulations to ensure our safety.

I am copying and attaching the document in this email

Again, thank you.

--

Michelle Weiner

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310-780-1051

The Oil Field Regulations should reflect the requirements of the entire City, not just the small portion east of Jefferson. According to DOGGR, the Inglewood Oil Field extends through Culver City. I suggest use of an "urban limit line" which surrounds our residential, open space and commercial areas and extends downward. This limit line can define where the ordinance may have stricter requirements.

In general, aside from my concern with hydraulic fracturing, I don't believe the city infrastructure and aging housing structures can withstand the ground movement that occurs as a result of extraction and waterflooding. It may be that the City can't revoke the current land use easily, but we can at least place ongoing restrictions and prohibitions that protect the public Health and Safety as well as more accurately covering the activities real costs. Mitigation and prevention of these future problems must be addressed in any oil ordinance.

Notifications and communication with the public and transparency to the community director and other public officials needs to be instilled through the ordinance. There shouldn't have to be any guessing as to what processes they are using or spills that have occurred.

We need adequate setbacks for Drilling pump jacks from inhabited buildings and roads, plus permanently reserved space open space for the drilling equipment and any potentially needed fire equipment.

The City, our property holders and our residents need to be protected against incurring any fiscal demands from the oil field operations and transient operators. We need to demand a mix of insurance, transferable bonds and money in escrow to cover reasonable expected losses and damages. In addition, the subsurface property owners and royalty receivers (beneficiaries) need to be tied to assessments of property values and the adverse effects caused by leasees who extract the property's natural resources. In other words, the property holder who leases their subsurface mineral rights for oil and gas extraction also needs to be assessed parcel fees and/or taxes in order to help spread the costs amongst the responsible parties.

Below are a set of comments to the initial O&G discussion draft, These are in addition to the extended comments which are included within Tom Williams' document.

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- 1) Fracking should be prohibited within and beneath the City Limits.
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- 3) Existing wells are not to be allowed to be reworked in any manner that would change the horizontal location of any downhole, unless it was closer in proximity to the surface well bore.
- 4) Definitions of Hydraulic fracking, I'll give you 3, choose:
  - 1) "Hydraulic fracturing" shall mean an activity in which a liquid, chemicals, acid, gas, proppant or any other agent are pumped into a well bore at a rate sufficient to increase the pressure downhole to a value in excess of the fracture gradient of the formation rock, causing the formation rock to crack, dissolve or otherwise become porous thus allowing the fracturing fluid or agent to enter and extend the crack farther into the formation, forming passages through which natural gas, oil or other hydrocarbons can flow.

2) "hydraulic fracturing" shall mean the injection of fluids or gases into an underground geologic formation with the intention to cause or enhance fractures in the formation, in order to cause or enhance the production of oil or gas from a well. Alternate terms include, but are not limited to, "fracking," "hydrofracking," and "hydrofracturing."

3) "Fracking" shall include the terms "induced hydraulic fracturing," "hydrofracturing," "slickwater fracturing," and other related terms, and shall include any high-pressure well

stimulation methods, including but not limited to hydraulic, vapor, steam, or gaseous fracturing, acidization, and other high pressure stimulation methods related to the exploration for, or extraction and production of, fossil fuels. The term shall also refer to all processes and activities, including “horizontal” or “directional” drilling, related to the exploration for, or extraction and production of, fossil fuels.

- 4) “High volume gravel packing” shall be considered a prohibited type of fracking.
- 5) Enhanced oil recovery techniques which inject acids, polymers, CO2 or other chemicals or gasses should be prohibited unless demonstrable proof of safety is supplied.
- 5) Waste water injection wells shall be prohibited within City Limits. All Injection wells aside from Class II “enhanced recovery wells” are prohibited.
- 6) The “Culver City Defined oil field” is/are only those areas currently occupied by active surface wells, east of Jefferson.
- 7) Man-made ground movement in areas that are not within the “Culver City Defined Oil field”, such as Culver Crest, Blair Hills is prohibited. Extraction and Water Flooding and other oil production activities which effect ground movement/subsidence are prohibited. Current operator will be strictly liable for damages and remediation.
- 8) Waterflooding (Class II “enhanced recovery wells” ) shall be restricted in pressures to only effect the land contained within the “Culver City defined Oil Field.”
- 9) All annual drilling plans, if they include new wells or substantial rework of existing wells must be approved by a vote of the public. Fee for drilling plan submission shall include election costs and other management costs.
- 10) To monitor ground movement and subsidence due to extraction and waterflooding there needs to be real-time GPS monitors distributed throughout the city in a manner that reports on all critical movement within the Machado tract and within the limits of the the DOGGR defined "Inglewood Oil Field", as well as strategic locations outside the area including Blair hills, Culver Crest and the Culver City park and Ball Field. Data collected from monitors must be publicly available and accessible. Monitoring to be paid from escrow account from fee to operator.

## ZONING

- 11) Define an urban limit line around areas to be protected as urban residential or urban-safety zone; outside this area, the General Plan and Zoning (Development Code) ordinance by law would be followed strictly. Inside the limit line, the land use designations are followed even more strictly; requiring a vote of the public to change, for instance, if land is designated residential, commercial or open space, a developer CANNOT apply for a conditional use permit, zone change or general plan amendment without a vote of the public to approve the change. Waterflooding and extraction would be prohibited in this area unless a vote of the public approves it.
- 12) There are commonly height restrictions for Zoning, There needs to be depth restrictions: The residential no-drilling zone extends for 6 miles beneath the surface.

- 13) All commercial extraction of resources to a depth of 6 miles beneath all residential and commercially zoned areas should be prohibited.
- 14) Minimum 500ft setback from normally traveled portion of any public roads, highways, property lines, or buildings of all wells, containment facilities, reservoirs or storage tanks. Exceptions may be granted by public for preexisting environmental hazards.
- 15) All Well pads must have an unobstructed open space perimeter that extends 250 ft in each direction along the surface.
- 16) All roads must be graded and built in such a manner to minimize dust and debris. Roads must be accessible to emergency personnel and the community director.

## NOTIFICATIONS

- 17) Well sites and well operations may be subject to periodic and unannounced inspections by the community director or other individuals pre-assigned by the director or City Council.
- 18) If the community director or city council determines that any operation has an imminent anticipated threat to public health, safety or the environment, they have the right to compel the operator to take appropriate action to remediate within a specified time frame
- 19) Operator must report all chemicals used, including so called trade secrets to the Community director. The community director has authority to hold these as confidential documents but may be obligated to release these chemicals to relevant health agencies.
- 20) Notice of any hearing on the O&G operations should be mailed or delivered at least 10 business days prior to the hearing to all real property owners and residents.
- 21) A Community Awareness and Emergency Response plan (CAER), with required operator inputs, immediate emergency personnel and timely resident notification must be created and approved by the public.
- 22) Public notices and submission to the Community Director should be required for all of the following conditions 30 days prior to commencement of:
  - 1) change of well status from idle to producing or injection or any combination
  - 2) intention to engage in enhanced recovery or hydraulic fracturing operations
  - 3) full details of transfer of operator or ownership
  - 4) reportable oil or gas releases must be submitted to California Emergency Management Agency and other agencies in the oil spill contingency plan within 72 hours and to the Community director and Community Awareness and Emergency response (CAER) within 12 hours. Any required emergency personnel should be notified immediately upon discovery and assessment according to oil spill contingency plan.

- 5) 10 days for: All DOGGR notices, permits, approvals, summaries relating to well drilling, abandonment, completion, rework shall also be submitted to community director.
- 6) 10 days for: All citations, notices of correction or violations or notices of required changes by operator by DOGGR, or any federal, state, county or local agency.
- 7) 10 days for: Any and all reports of DOGGR annual inspections
- 8) A document submission policy which allows or demands the electronic submission or electronic links to filed needs to be created

## HEALTH/SAFETY REQUIREMENTS

- 23) Before any additional drilling takes place there must be continuous baseline testing of all our groundwater, air, ground movement, elevation, storm run-off, and soil throughout the City, not just at the surface well location. ..and this testing must continue while drilling and after with real-time results publicly available and easily accessible by anyone.
- 24) There needs to be public approved plans created and implemented with adequate funding for baseline, continuous and ongoing monitoring as well as post extraction phase testing for groundwater, air quality, microseismicity, noise, well integrity, storm water runoff.. and not just in the "field", but outside the field as well.
- 25) Baseline water quality testing and continuous monitoring by a public approved 3<sup>rd</sup> party must be performed a minimum distance of one mile as measured from the surface, from the farthest point of the well bore or well endpoint(s). Expenses to be paid via a fee to the operator
- 26) No waste gas venting or flaring is allowed. All gasses and liquids must be fully captured with adequately designed equipment. Each well site must follow zero emission standards. Local law can be stricter and supersede DOGGR and EPA requirements
- 27) It shall be unlawful to dispose of any water, gas, mineral or other materials produced from or contaminated as a result of drilling operations in such a manner that may be injurious to humans, animals, plant life, soil or would pollute our air, soil or waterways irregardless of any permits issued by any other agency than the City.
- 28) "Pollute" or "Pollution" shall mean any such contamination, or other alteration of the physical, chemical, or biological properties of any surface, groundwater or air within the city, or such discharge of any liquid, gaseous or solid substance into any air, waters or surfaces within the City, or that flows or migrates into the City, as will create a nuisance or render such waters, air or surfaces harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life either in or downwind or down flow of the City.
- 29) All well drilling operations which may penetrate though any waterbearing strata shall not subject the groundwater basin or sub basin any contamination.
- 30) Each well site should have continuously monitoring air quality testing for methane and H2S. These monitors must broadcast real-time to the internet and the readings should be readily visible by anyone

visiting, without need for website registration. Should measure H<sub>2</sub>S from 0ppm. Visible and auditory alarms should be installed and working to detect common oil field gasses such as methane and H<sub>2</sub>S.

31) Building and residences within 500ft should have exterior monitors and 2 stage alarms for methane and H<sub>2</sub>S. H<sub>2</sub>S concentration of of 20ppm & 100ppm.

32) All Drilling rig underground chambers should be "permit required confined spaces." and have permanently installed forced ventilation systems.

33) Respiratory protection and personal protective equipment, rescue, and communication equipment should be accessible within 500ft of all active well heads in publicly accessible , clearly marked and locations for use by rescue personnel and trained operators. PPE should include at a minimum:

a. A full face-piece pressure-demand self-contained breathing apparatus (SCBA) with a minimum service life of thirty minutes, or

b. A combination full face-piece pressure-demand supplied-air respirator with an auxiliary self-contained air supply.

c. An full face-piece air-purifying respirator with a filter cartridge/canister appropriate for hydrogen sulfide.

34) Oil Field safety training should be provided and offered to police, fire, rescue as well as park personnel, neighboring residents, businesses and community members. Training should be performed annually.

## OWNERSHIP AND LIABILITY

35) Property holders who lease their subsurface mineral rights for extraction should also be held liable in addition to the oil operator for damages and undergo an assessment tax or fee to offset mitigation and oil field oversight.

36) The operator is strictly liable for any and all ground movement or subsidence. Any movement in excess of 1 inch as a result of oil extraction or water flooding anywhere within the city shall be prohibited.

37) Operator is strictly liable for any damaged caused by induced seismicity from any oil field operations.

38) Prior to any permits for extraction or waterflooding activity a 25 year subsidence and abandonment mitigation plan must be submitted whose implementation is fully funded through an escrow account.

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8) Waterflooding (Class II "enhanced recovery wells" ) shall be restricted in pressures to only effect the land contained within the "Culver City defined Oil Field."

9) All annual drilling plans, if they include new wells or substantial rework of existing wells must be approved by a vote of the public. Fee for drilling plan submission shall include election costs and other management costs.

10) To monitor ground movement and subsidence due to extraction and waterflooding there needs to be real-time GPS monitors distributed throughout the city in a manner that reports on all critical movement within the Machado tract and within the limits of the the DOGGR defined "Inglewood Oil Field", as well as strategic locations outside the area including Blair hills, Culver Crest and the Culver City park and Ball Field. Data collected from monitors must be publicly available and accessible. Monitoring to be paid from escrow account from fee to operator.

## ZONING

11) Define an urban limit line around areas to be protected as urban residential or urban-safety zone; outside this area, the General Plan and Zoning (Development Code) ordinance by law would be followed strictly. Inside the limit line, the land use designations are followed even more strictly; requiring a vote of the public to change, for instance, if land is designated residential, commercial or open space, a developer CANNOT apply for a conditional use permit, zone change or general plan amendment without a vote of the public to approve the change. Waterflooding and extraction would be prohibited in this area unless a vote of the public approves it.

12) There are commonly height restrictions for Zoning, There needs to be depth restrictions: The residential no-drilling zone extends for 6 miles beneath the surface.

13) All commercial extraction of resources to a depth of 6 miles beneath all residential and commercially zoned areas should be prohibited.

14) Minimum 500ft setback from normally traveled portion of any public roads, highways, property lines, or buildings of all wells, containment facilities, reservoirs or storage tanks. Exceptions may be granted by public for preexisting environmental hazards.

15) All Well pads must have an unobstructed open space perimeter that extends 250 ft in each direction along the surface.

- 16) All roads must be graded and built in such a manner to minimize dust and debris. Roads must be accessible to emergency personnel and the community director.

## NOTIFICATIONS

- 17) Well sites and well operations may be subject to periodic and unannounced inspections by the community director or other individuals pre-assigned by the director or City Council.
- 18) If the community director or city council determines that any operation has an imminent anticipated threat to public health, safety or the environment, they have the right to compel the operator to take appropriate action to remediate within a specified time frame
- 19) Operator must report all chemicals used, including so called trade secrets to the Community director. The community director has authority to hold these as confidential documents but may be obligated to release these chemicals to relevant health agencies.
- 20) Notice of any hearing on the O&G operations should be mailed or delivered at least 10 business days prior to the hearing to all real property owners and residents.
- 21) A Community Awareness and Emergency Response plan (CAER), with required operator inputs, immediate emergency personnel and timely resident notification must be created and approved by the public.
- 22) Public notices and submission to the Community Director should be required for all of the following conditions 30 days prior to commencement of:
  - 1) change of well status from idle to producing or injection or any combination
  - 2) intention to engage in enhanced recovery or hydraulic fracturing operations
  - 3) full details of transfer of operator or ownership
  - 4) reportable oil or gas releases must be submitted to California Emergency Management Agency and other agencies in the oil spill contingency plan within 72 hours and to the Community director and Community Awareness and Emergency response (CAER) within 12 hours. Any required emergency personnel should be notified immediately upon discovery and assessment according to oil spill contingency plan.
  - 5) 10 days for: All DOGGR notices, permits, approvals, summaries relating to well drilling, abandonment, completion, rework shall also be submitted to community director.
  - 6) 10 days for: All citations, notices of correction or violations or notices of required changes by operator by DOGGR, or any federal, state, county or local agency.
  - 7) 10 days for: Any and all reports of DOGGR annual inspections
  - 8) A document submission policy which allows or demands the electronic submission or electronic links to filed needs to be created

## HEALTH/SAFETY REQUIREMENTS

- 23) Before any additional drilling takes place there must be continuous baseline testing of all our groundwater, air, ground movement, elevation, storm run-off, and soil throughout the City, not just at the surface well location. ..and this testing must continue while drilling and after with real-time results publicly available and easily accessible by anyone.
- 24) There needs to be public approved plans created and implemented with adequate funding for baseline, continuous and ongoing monitoring as well as post extraction phase testing for groundwater, air quality, microseismicity, noise, well integrity, storm water runoff.. and not just in the "field", but outside the field as well.
- 25) Baseline water quality testing and continuous monitoring by a public approved 3<sup>rd</sup> party must be performed a minimum distance of one mile as measured from the surface, from the farthest point of the well bore or well endpoint(s). Expenses to be paid via a fee to the operator
- 26) No waste gas venting or flaring is allowed. All gasses and liquids must be fully captured with adequately designed equipment. Each well site must follow zero emission standards. Local law

can be stricter and supersede DOGGR and EPA requirements

- 27) It shall be unlawful to dispose of any water, gas, mineral or other materials produced from or contaminated as a result of drilling operations in such a manner that may be injurious to humans, animals, plant life, soil or would pollute our air, soil or waterways irregardless of any permits issued by any other agency than the City.
- 28) "Pollute" or "Pollution" shall mean any such contamination, or other alteration of the physical, chemical, or biological properties of any surface, groundwater or air within the city, or such discharge of any liquid, gaseous or solid substance into any air, waters or surfaces within the City, or that flows or migrates into the City, as will create a nuisance or render such waters, air or surfaces harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life either in or downwind or down flow of the City.
- 29) All well drilling operations which may penetrate though any waterbearing strata shall not subject the groundwater basin or sub basin any contamination.
- 30) Each well site should have continuously monitoring air quality testing for methane and H2S. These monitors must broadcast real-time to the internet and the readings should be readily visible by anyone visiting, without need for website registration. Should measure H2S from 0ppm. Visible and auditory alarms should be installed and working to detect common oil filed gasses such as methane and H2S.
- 31) Building and residences within 500ft should have exterior monitors and 2 stage alarms for methane and H2S. H2S concentration of of 20ppm & 100ppm.
- 32) All Drilling rig underground chambers should be "permit required confined spaces." and have permanently installed forced ventilation systems.
- 33) Respiratory protection and personal protective equipment, rescue, and communication equipment should be accessible within 500ft of all active well heads in publicly accessible , clearly marked and locations for use by rescue personnel and trained operators. PPE should include at a minimum:
  - a. A full face-piece pressure-demand self-contained breathing apparatus (SCBA) with a minimum service life of thirty minutes, or
  - b. A combination full face-piece pressure-demand supplied-air respirator with an auxiliary self-contained air supply.
  - c. An full face-piece air-purifying respirator with a filter cartridge/canister appropriate for hydrogen sulfide.
- 34) Oil Field safety training should be provided and offered to police, fire, rescue as well as park personnel, neighboring residents, businesses and community members. Training should be performed annually.

#### OWNERSHIP AND LIABILITY

- 35) Property holders who lease their subsurface mineral rights for extraction should also be held liable in addition to the oil operator for damages and undergo an assessment tax or fee to offset mitigation and oil field oversight.
- 36) The operator is strictly liable for any and all ground movement or subsidence. Any movement in excess of 1 inch as a result of oil extraction or water flooding anywhere within the city shall be prohibited.
- 37) Operator is strictly liable for any damaged caused by induced seismicity from any oil field operations.
- 38) Prior to any permits for extraction or waterflooding activity a 25 year subsidence and abandonment mitigation plan must be submitted whose implementation is fully funded through

an escrow account.

- 39) All operators should carry a minimum of \$10M insurance per well, per incident. The city should be named as additional insured and the policy of insurance shall provide the City a 25 year notice of cancellation.

#### VESTED RIGHTS/NON CONFORMING

- 40) There are no vested rights to conduct drilling operations with any well or well pad that has been idle or abandoned prior to the adoption of this ordinance.
- 41) Any new, changed or modified method of secondary or enhanced recovery or the use of hydraulic fracking, including high volume gravel packing, shall be deemed a substantial change which would require an new amendment to a conditional use permit.
- 42) Legal non-conforming oil/gas operation shall not be expanded or altered without full compliance with this o&G chapter.

#### SPECIFIC EDITS TO DISCUSSION DRAFT

Below are sections with relevant changes. I've used strikeouts for removals and green for additions. most of these are reporting requirements.

##### Section 21 **Air Quality, Public Health and Climate Change**

1. **Plan/Element.** Operator shall submit an Air Monitoring Plan or Element to be reviewed and approved or conditionally approved **by the public and** the Community Development Director. The Air Monitoring Plan shall include any measure requested by the Community Development Director. The Plan shall be designed to ensure public health and safety through the reduction in air toxics and odorous emissions and reduce greenhouse gas emissions from Oil Operations. The Plan shall also specify the number, type and location of monitors that will be used, and provide detailed information concerning the reliability of the instrumentation, frequency <<<< of calibration and other similar information. The Air Monitoring Plan shall also be designed to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations within the Oil Field, and endeavor to determine and distinguish the source of emissions, to the extent feasible, using available and affordable monitoring technology. Additionally, air monitoring **is may also be** required ~~as requested by the Community Development Director~~ along the Outer Boundary of the Oil Field to assess the risk of both acute and chronic exposure to air contaminants from Oil Operations in the portion of the Inglewood Oil Field under the jurisdiction of Los Angeles County. During drilling, redrilling, **reworking** or maintenance operations, the Operator shall monitor for hydrogen sulfide and total hydrocarbon vapors as specified in the approved Plan. Hydrogen sulfide shall also be **continuously** monitored using fixed or mobile monitoring equipment. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis** ~~in response to odor complaints from the public or when onsite odors are encountered by operating personnel.~~ Total hydrocarbon vapors shall be monitored, so as to exceed the requirements of SCAQMD Rules 1148 and 1173, using monitoring equipment at locations surrounding the wells, tanks, piping, piping components, etc. at the locations and frequencies, no less frequent than quarterly, that shall be based on air quality modeling and/or specified in the approved Plan. The approved monitors shall provide automatic alarms that are triggered by the detection of hydrogen sulfide or total hydrocarbon vapors at levels designated in the approved Plan. For drilling, redrilling, **reworking** operations, or maintenance monitors, the alarms shall be audible and/or visible to the person operating the drilling, redrilling, **reworking**, operating, or maintenance equipment. When specified alarm levels are reached, the following actions shall be taken:

#### **SECTION 22. NOISE ATTENUATION.**

##### **A. Noise Limits.**

1. All Oil Operations on the Oil Field shall comply with the noise provisions of the CCMC Title 9, Chapter 9.07 (Noise Regulations). In the event there are any inconsistencies between Chapter 9.07 and the provisions of this Ordinance, this Ordinance shall take precedence for Oil Operations.
2. Hourly, A-weighted equivalent noise levels associated with well drilling, redrilling, **reworking** and

maintenance shall not elevate existing baseline levels by more than five dBA during daytime hours (7:00 am to 10:00 pm).

3. Operator shall limit the night time (10:00 p.m. to 7:00 a.m.) noise levels at any sensitive receptor to **no more than three dBA** above a one-hour baseline average for the defined nighttime period. If Operator violates the above noise requirements, Operator shall identify the source of the noise and take steps necessary to assure compliance with this subsection.
4. If well drilling, redrilling, **reworking** and maintenance operations elevate nighttime baseline noise levels by **more than 10dBA for more than 15 minutes in any one hour, as independently verified and determined by the City**, the Operator, in consultation with the City, shall identify the cause and source of the noise and takes steps to avoid such extended periods of noise elevation in the future.
5. Noise produced by Oil Operations shall include no pure tones when measured beyond the Outer Boundary or, for other locations, as determined by the Public Works Director/City Engineer.

....

**K. Monitoring.** The Operator shall employ an independent qualified acoustical engineer, approved by the Public Works Director/City Engineer to install equipment to continuously monitor and digitally record noise levels at and near the Oil Field or Drilling Project location. Such monitors shall be placed at locations and for the frequency and duration identified by the Public Works Director/City Engineer and shall include adjacent sensitive receptor locations and at locations where complaints were received regarding Drilling Project activities. The results of all monitoring shall be submitted to the Public Works Director/City Engineer on a quarterly basis. The monitoring required by this subsection shall be implemented no later than 180 days following the Effective Date or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown. **The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.**

#### **Vibration Reduction**

**continuously monitor and digitally record vibration levels at the Outer Boundary**  
The results of all such monitoring shall include quarterly reports and continuous real-time sampling data, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.

#### **Injection Wells**

**Injection wells are prohibited from permanent storage. All Injection wells aside form Class II “enhanced recovery wells are prohibited.**

**and fluid**

#### **Complaints**

The results of all such complaints shall include quarterly reports and real-time, freely accessible and available on the internet, in a standard, freely accessible, human and computer readable, open source file format. Additionally, reports should also be submitted to the Public Works Director/City Engineer on a quarterly basis.

## **Jordan, Sherry**

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**From:** J.E. Brockman <bc534@lafn.org>  
**Sent:** Friday, June 21, 2013 12:28 PM  
**To:** Jordan, Sherry  
**Subject:** CC Oil Field Regulations feedback

Dear Ms. Jordan,

I know this has been a difficult process for your committee and you have all worked hard on this document. Since it is not possible for you all to be oil energy engineers, after perusing Dr. Tom Williams' comments, this is to request that you incorporate them all into your document.

This is the only way Culver City will be protected.

Thank you for your consideration,

J.E. Brockman  
4260 La Salle Ave  
Culver City 90232  
310-876-1188



## **Jordan, Sherry**

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**From:** ctwilliams2012@yahoo.com  
**Sent:** Friday, June 21, 2013 12:12 PM  
**To:** Jordan, Sherry  
**Cc:** ctwilliams2012@yahoo.com  
**Subject:** Email from City Website: Comments on Discussion Draft

Email message from the City's Website from:

Dr. Tom Williams  
4117 Barrett Road  
Los Angeles, 90032-1712  
(323) 528-9682

Email:

Submitted as separate email message and attachment

## Jordan, Sherry

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**From:** Kenneth Kutcher <kutcher@hlkklaw.com>  
**Sent:** Thursday, June 06, 2013 5:32 PM  
**To:** Schwab, Carol; Baker, Heather; Jordan, Sherry  
**Subject:** Page 36 draft Oil Reg comments  
**Attachments:** Page from Draft Reg.pdf

Attached is my only additional (very minor) technical suggestion on page 36 of the draft Regulations. I'm leaving now to attend the City's public hearing. (I don't plan on talking about any of these suggested potential edits.)

Kenneth L. Kutcher  
Harding Larmore Kutcher & Kozal, LLP  
1250 6th Street, Suite 200  
Santa Monica, CA 90401  
t: (310) 451-3669  
f: (310) 392-3537

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12. Horns shall not be used to give signals [except in the event of an emergency](#).
  13. Any other additional information required by the Community Development Director.
- D. Engines.** Critical grade or better exhaust muffler systems shall be used to reduce noise from diesel drilling rig engines. All other equipment powered by internal combustion engines shall use residential grade or better exhaust muffler systems to reduce noise.
- E. Equipment Servicing.** All noise producing Oil Field equipment shall be regularly serviced and repaired to minimize increases in pure tones and other offensive noise output over time and to ensure that tonal and other offensive noise from worn bearings, metal-on-metal contact, valves and other equipment does not cause perceptible tonal or other offensive noise at the Outer Boundary or any neighboring property. The Operator shall maintain an equipment service log for all noise-producing equipment, which shall be subject to inspection by the City.
- F. Deliveries.**
1. Except as provided in Section 22.E.2, deliveries shall not be permitted after 8:00 p.m. and before 7:00 a.m. except in cases of emergency. Deliveries on Sundays or legal holidays shall not be permitted after 8:00 p.m. and before 9:00 a.m., except in cases of emergency.
  2. Deliveries within 500 feet of any residential property shall not be permitted after 5:00 p.m. and before 7:00 a.m. except in cases of emergency. Deliveries on Sundays or legal holidays shall not be permitted after 5:00 p.m. and before 9:00 a.m., except in cases of emergency or as approved by the Community Development Director.
- G. Time Limits for Construction.** Construction of permanent structures shall not be permitted after 7:00 p.m. and before 7:00 a.m., or during Saturdays, Sundays, or legal holidays, except in cases of emergency or as approved by the Community Development Director.
- H. Construction Equipment.** All construction equipment shall be selected for low-noise output. All construction equipment powered by internal combustion engines shall be properly muffled and maintained. The Operator shall maintain an equipment service log subject to inspection by the Public Works Director/City Engineer.
- I. Construction Equipment Idling.** Unnecessary idling of construction equipment internal combustion engines is prohibited.
- J. Worker Notification.** The Operator shall instruct employees and subcontractors about the noise provisions of these regulations prior to commencement of each and every drilling, redrilling, reworking, construction and maintenance operation, and shall annually certify to the Public Works Director/City Engineer that such employees and subcontractors have been properly trained to comply with such

## Jordan, Sherry

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**From:** mdidak@didaklaw.com  
**Sent:** Wednesday, May 22, 2013 11:40 AM  
**To:** Jordan, Sherry  
**Cc:** mdidak@didaklaw.com  
**Subject:** Email from City Website: Draft Oil Drilling Regulations--Comments

Email message from the City's Website from:

Mark Didak  
5110 Cimarron Lane  
Culver City, 90230  
310.670.7173

Email:

The fracking regulations should be amended so oil company must fully disclose all chemicals and materials used if and when state allows fracking. Dust control plan fails to address critical issue--heavy metals contaminated dust emanating from catch basins when ponds dry out. Vickers Lower II, for example, is right next to the athletic field at WLAC and several thousand residents of Raintree, Terra Terrace, etc. Dust blows regularly throughout the year notwithstanding mitigation efforts including spraying basins with water to suppress dust. Depth of contaminated soil, contaminant content, and proper mitigation must be addressed.

June 21, 2013

**RECEIVED**  
JUN 21 2013  
Culver City  
Planning Division

PHONE: (213) 620-0460  
FAX: (213) 624-4840  
DIRECT: (213) 621-0815  
E-MAIL: kbrogan@hillfarrer.com  
WEBSITE: www.hillfarrer.com

By Fax (310-253-5721) and Hand Delivery

Sherry Jordan  
Project Manager  
City of Culver City, Planning Division  
9770 Culver Blvd.  
Culver City, CA 90232

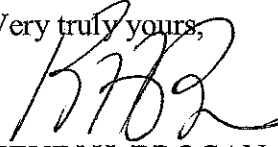
Re: **Proposed Oil Drilling Regulations re Culver City Portion of the Inglewood Oil Field**

Dear Ms. Jordan:

This firm is counsel to the thirteen individuals (the "Vickers Group") who are lessors under an oil and gas lease of which 49.63 acres are within the boundaries of Culver City (the "subject property"). There are eleven operating wells surfaced on the subject property. These family members are descendants of JV Vickers who bought the property in the early 1920s. Oil was first drilled in the late 1920s and the field has been a growing and successful operation ever since. The oil fields were operating long before the surrounding residential communities were developed.

The proposed ordinance would have a significant and immediate impact on the subject property which would create substantial damages to the Vickers Group and the oil field operator. The Vickers Group joins in the letter of today's date submitted by Freeport-McMoRan Oil & Gas (the successor by merger to Plains Exploration & Production Company).

Very truly yours,

  
KEVIN H. BROGAN  
OF  
HILL, FARRER & BURRILL LLP

cc: Vickers Group