DISCUSSION DRAFT OIL DRILLING REGULATIONS FOR THE CULVER CITY PORTION OF THE INGLEWOOD OIL FIELD

ĺ	Section 1	Purpose and Intent	Deleted: <u>NOTE: The following is</u> City staff's initial Discussion Draft
Ì	Section 2	Acronyms and Definitions	of the substantive regulations
	Section 3	Applicability	proposed for the Culver City portion of the Inglewood Oil Field.
	Section 4	Application Filing, Processing, Review, <u>Drilling Plan Amendments</u> and Fees	City staff intends to request, at a future public meeting, that the City Council, by resolution, initiate the preparation and processing of a
	Section 5	Findings and Decision	Specific Plan, in accordance with
	Section 6	Conditions on Assignment of Drilling Use Permit and Drilling Plans	the procedures set forth in Culver City Municipal Code, Chapter
	Section 7	Condition Compliance	17.570, incorporating these substantive regulations.¶
	Section 8	Expiration, Revocation or Modification of Permit	1
	Section 9	Other Administrative Items	
	Section 10	Construction and Grading Permits	
	Section 11	Operating Standards	
	Section 12	Fire Operational, Permit, Protection and Emergency Response	Deleted: Operating
	Section 13	Sumps Prohibited	Deleted: and Reservoirs
	Section 14	Major Facilities Prohibited	
	Section 15	Tanks	
	Section 16	Location of Tanks	
	Section 17	Piping and Electrical Equipment	
	Section 18	Dikes and Retaining Walls	
	Section 19	Toilet and Wash Facilities	
	Section 20	Safety and Risk of Upset	
	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	Surface Water Management	
	Section 27	Stormwater and Drainage Management	
	Section 28	Storage of Hazardous Materials and Oil Field Waste Removal	
	Section 29	Biological Resources	
	Section 30	Cultural Resources	

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Section 31	Consolidation and Annual Drilling, Redrilling, Well Abandonment, and Well	
	Pad Restoration	Deleted: Plan
Section 32	Well Stimulation Treatments	
Section 33	Well Reworking	 Deleted: Section 32 _ Hydraulic Fracturing¶
Section 34	Processing	Deleted: , Maintenance, and
Section 35	Well Cellars	Abandonment Rigs
Section 36	Lighting	
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 42	Directional Drilling Surveys Required on Certain Wells	
Section 43	Duplicate Notices	Deleted: Filing Surveys Requirement¶
Section 44	Inspection of Premises	
Section 45	_Well and Production Reporting	
Section 46	Idle Well Testing and Maintenance	
Section 47	Injection Wells	
Section 48	_Abandoned Well Testing	
Section 49	_Well and Well Pad Abandonment	
Section 50	City Request for Review of Well Status	
Section 51	Oil Field Abandonment Procedures	
Section 52	Safety Inspection, Maintenance, and Quality Assurance Program (SIMQAP)	
Section 53	_Compliance and Safety Audits	
Section 54	_Complaints	
Section 55	_Community Outreach	
Section 56	_Conflict of Provisions	
Section 57	Schedule for Abandonment of Wells or Oil Field	

SECTION 1. PURPOSE AND INTENT.

The provisions in <u>these Drilling Regulations</u>, establish safeguards and controls for activities related to drilling for and production of oil, gas, and other hydrocarbon substances within the <u>Oil Field</u>, that include, but are not limited to, ensuring the following:

A. Oil Operations are conducted in <u>a comprehensively coordinated manner consistent</u> with a programmatic plan for a defined physical area and in harmony with adjacent land uses <u>and in a manner that protects the public health</u>, safety and welfare, and the environment;

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- B. Cooperation <u>and coordination among</u> affected and adjacent government agencies in implementing all reasonable measures to reduce 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 <u>environmental</u>, <u>public health and</u> <u>safety</u> impacts of Oil Operations by the implementation of area-specific regulations and mitigation measures;
- E. Before new Oil Field drilling activities are permitted, that existing Oil Field facilities are in compliance with the requirements of <u>these Drilling Regulations and the Specific Plan</u>;
- 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 in order to preserve and improve the visual character and guality of the surrounding uses; 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.

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

CDFW – California Division of Fish and Wildlife

CEC – California Energy Commission

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

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ERP – Emergency Response Plan

MMRP - Mitigation Monitoring and Reporting Program

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 the CCMC, the following words and phrases shall, for the purposes of these Drilling Regulations and the Specific Plan, 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.

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

Annual Consolidation and Drilling Plan (or Annual Drilling Plan). The Annual Consolidation and Drilling, Redrilling, Well Abandonment, and Well Pad Restoration Plan as set forth in Section 31.

Blowout. An uncontrolled flow of well fluids and/or formation fluids from a well bore to the surface or into lower-pressured subsurface zones (underground blowout).

Blowout Preventer. A valve attached to the casing head of a well, allowing the well to be sealed at the surface and confining well fluids to the well bore,

Bottom Hole. The underground location at which the well bores 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 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.

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Deleted: 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.

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Clean Technology. General reference to describe equipment, engines, machinery, products, processes or services that reduce waste, reduce the use of non-renewable natural resources and minimize or eliminate emissions,

Clean Technology Assessment. An evaluation, to be completed annually, of available clean technology options and the potential to incorporate those technologies into the planning and operations at the Culver City Inglewood Oil Field.

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

Comprehensive Drilling Plan. A long-range, <u>conceptual</u> plan consistent with <u>these Drilling Regulations</u>, proposed by each Operator within the Oil Field, which describes and depicts the Oil Operations through the year <u>2032</u>.

Consolidate or Consolidation. The clustering of multiple wells or Oil Field facilities within a geographically smaller footprint, including for example, consolidation within a portion of the Specific Plan area that is outside the 400-foot setback from Developed Areas, or the grouping of wells and facilities within predetermined consolidated well site areas. Consolidation may also include the consolidation of facilities overall to provide for improved efficiency and sharing of infrastructure. Consolidation may also include concepts for the staged abandonment of wells, or the replacement of older, outdated and obsolete facilities with more efficient and improved technology or equipment accompanied by placement of such technology or equipment within approved areas to preserve or improve the visual character and/or protect natural resources and open space areas.

Deep Zone Well. A well where the Bottom Hole is proposed in a deep zone (Nodular Shale and Sentous zones or <u>any</u> other <u>production zone located at</u>, 8,000 feet <u>below ground surface</u> or deeper).

Derrick. Any portable framework, tower, mast, or structure which is required or used in connection with drilling, redrilling, reworking, operating, or maintaining a <u>Well</u>.

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

Drilling. The digging or boring into the earth for the purpose of exploring for, developing, extracting or producing oil, gas, or hydrocarbon substances from the earth or <u>for the purpose of injecting water</u>, steam, or any other fluid or substance into the earth, but does not include remediation efforts to clean-up or remove contamination.

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

Drilling Project. The erection of any derrick, rig, or similar or related structure (including a rework rig) and/or use of any mobile drilling equipment for the drilling, redrilling, reworking or deepening of any Well hole, or the redrilling or reactivation of any abandoned Well. 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 in association with the Well hole.

Drilling Regulations. The regulations, as set forth in Appendix C of the Inglewood Oil Field Specific Plan, governing the continuation of oil uses as a nonconforming use within the Oil Field area and Specific Plan boundary, as defined in Appendix A, Boundary Description, of the Specific Plan.

Drilling Use Permit. A City permit reviewed and processed in compliance with these Drilling Regulations and the Specific Plan which is necessary to conduct any Drilling Project. More than one Drilling Project may be approved under one Drilling Use Permit, provided that each Drilling Project is a part of the approved Annual Drilling Plan. .

Drill Site. That portion of any land on which drilling equipment is placed, stored, or utilized during the drilling, redrilling, reworking or deepening of a Well,

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.

Enhanced Oil Recovery. Injection of steam, gas, or other chemical compounds into hydrocarbon reservoirs to stimulate the production of usable oil beyond what is possible through natural pressure, water injection, and pumping at the wellhead. Enhanced oil recovery does not include routine well cleanout work, routine well maintenance, routine removal of formation damage due to drilling, bottom hole pressure surveys, or routine activities that do not affect the integrity of the well or the formation.

Fire Chief. The Fire Chief of the City of Culver City or his or her designee.

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

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 standard temperature and pressure conditions. It shall also mean the gaseous components or vapors occurring in, or derived from, petroleum or natural gas.

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Deleted: Any production method which involves the injection of water. gas, steam, or any other fluid or substance into the earth for the purpose of extracting oil.

Deleted: Fracking. See Hydraulic Fracturing.¶

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Good Cause. In the context of these Drilling Regulations, requires the Oil Field Operator to meet the burden of proof to provide substantial evidence that the asserted basis for a requested extension or minor deviation from any specific deadline, reporting, monitoring or other requirement, as set forth in these Drilling Regulations, constitutes an adequate justification for the requested extension and is necessary in order to achieve full compliance with the applicable provision. In part, that burden of proof shall include an explanation of the good faith effort that has been expended toward fulfilling the applicable provision in a timely manner, and shall also include a proposed revised date certain for compliance. Upon determination that the Oil Field Operator has made a good faith effort to comply, the Community Development Director (or Public Works Director, Fire Chief or other City designee, as appropriate) may extend the time or reporting provisions as appropriate. Whenever an extension is requested, the Director shall notify the Council of such request prior to acting upon same.

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 five or more years. An idle well does not include an active observation well.

Inglewood Oil Field. The approximate 1000-acre oil field located within and straddling the jurisdiction of the City of Culver City and the unincorporated area of the County of Los Angeles known as Baldwin Hills.

Injection Well. Any well used for the purpose of injecting water, produced water, waste water, brine, hydrocarbons or steam, or for the purpose of injecting any other substance as a means of enhanced oil recovery.

Maintenance. The diagnosis, repair or replacement of machinery, equipment, apparatus, structures, facilities, and parts thereof, used in connection with Oil Operations as well as any other work necessary to reduce public health or safety hazards, other than drilling, redrilling, or reworking.

Major Facilities. Major facilities include refineries, fractionation (such as distillation) activities, absorption plants, gas plants, gas processing, bioremediation facility, steam drive plant, oil cleaning plant, carbon dioxide separation or recovery plant, or water treating and processing facility. Major facilities are prohibited within the Oil Field.

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

Mitigation Monitoring and Reporting Program. A document describing all the mitigation measures identified in the certified Environmental Impact Report for the Inglewood Oil Field Specific Plan project, that includes a statement(s) of how, when and by whom each mitigation measure will be implemented, monitored and enforced..

Version 9-15-17 PUBLIC REVIEW DRAFT TRACK CHANGES COMPARE TO APRIL 2013 DISCUSSION DRAFT Deleted: ¶ Hydraulic Fracturing. An Enhanced Oil Recovery technique used in stimulating a formation or zone that

involves the pressurized injection of hydraulic fracturing fluid and proppant (such as sand) into an underground geologic formation in order to fracture the formation, thereby causing or enhancing the production of oil or gas from a Well.

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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 <u>or reactivated</u> shall be considered a new well.

Odor Suppressant. An organic emulsifier, or other compound, that is used to eliminate hydrocarbon odors by reducing the <u>emissions/release of</u> odor causing <u>compounds</u>. Organic emulsifiers, or other compounds, that mask or change the perceived odor from malodorous compounds by using other less malodorous substances are not considered odor suppressants.

Oil. Crude oil.

Oil Field. The approximate <u>77.8-acre area comprised by the exterior surface limits</u> of the Inglewood Oil Field that falls within the jurisdiction of the City of Culver City, and which are within the Specific Plan boundary as described in Appendix A, Boundary Description, of the Specific Plan.

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

Operational Permit (Annual or Temporary). Annual or Temporary Operational Permit as required and administered by the Culver City Fire Prevention Division for activities listed in Chapter 1 of the California Fire Code.

Operator. A person, firm, corporation, partnership, association, <u>limited liability</u> <u>company</u>, or other business entity that owns or holds the right to use the surface of the land to extract oil, gas, and other hydrocarbon substances. 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.

Outer Boundary. The <u>boundary limit of the Specific Plan and Oil Field, which is</u> <u>generally coincident with the exterior surface limits of the Oil Field within the City's</u> jurisdiction and contiguous with <u>the Specific Plan interface with</u> Developed Areas parcels, as identified in Appendix A, Boundary Description, of the Inglewood Oil Field Specific Plan.

Permanent Structure. Any building, facility, or equipment that <u>requires a permit</u> <u>under Section 105 of the current California Building Code, as adopted by the City, is</u> intended to, or does, remain in place for more than one year, and shall include all tanks.

Petroleum. An oily flammable liquid that may vary from almost colorless to black, occurs beneath the earth's surface, is a complex mixture of hydrocarbons and other substances, and may be refined or processed to make gasoline, diesel, lube oil, asphalt, and other products.

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Pipeline Management Plan. A plan prepared in accordance with California Code of Regulations (CCR) Section 1774.2, and per format guidelines provided through DOGGR, that documents the history, testing and integrity management for all pipelines that have not otherwise been abandoned per DOGGR requirements.

Processing. The activities required for oil, gas or other hydrocarbon <u>phase</u> separation, and transport, but does not include oil and gas processing activities identified in the prohibited Major Facilities defined above. Processing includes unheated phase separation and dehydration of crude oil and gas produced from the well, the storage, handling, recycling, and transportation of such materials; and those processing operations required for water injection purposes.

Produced Water. Water that is produced or extracted as a byproduct during oil and gas 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.

Redrilling. Any drilling operation conducted through the surface opening of an existing well <u>or abandoned well</u> to deepen the well or to create a new bore hole diverting below the surface of the earth from an existing bore of an existing well.

Reworking. Recompletion of an existing well, which includes operations such as liner replacements, perforating and acidizing, but does not include deepening or sidetrack operations that extend beyond the existing well bore. The principal piece of equipment used for reworking is sometimes referred to as a workover rig.

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

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

Site Assessment. An evaluation of areas surrounding a known or suspected spill or release of petroleum or other hazardous substances for potential contamination of soils and surface or subsurface areas for the presence of petroleum or other hazardous substances that may require removal or remediation for the protection of human health or the environment.

Slant Drilling. Non-vertical drilling, directional drilling, or drilling at a relatively significant angle.

Specific Plan. The Inglewood Oil Field Specific Plan (Specific Plan), a planning policy and regulatory document, adopted by the Culver City Council, which incorporates the Oil Drilling Regulations for the Culver City Portion of the Inglewood Oil Field (Drilling Regulations). The Specific Plan implements the goals, objectives and policies of the Culver City General Plan and establishes updated policy and

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Deleted: sinking of the land surface due to consolidation or compaction of the soil when the voids containing water or air are reduced, causing the soil particles to pack together more tightly and reducing the overall volume of soil. regulations for the continuation of oil uses as a nonconforming use within the Oil Field.

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.

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

Top Hole. The surface location from which drilling is commenced.

Uplift. The rising or rebound of the ground surface.

Well. Any oil or gas well, or well for the discovery or 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 gas for the purpose of stimulating or <u>enhancing</u> oil or gas recovery, repressuring or pressure maintenance of oil or gas reservoirs, or disposing of <u>oil field</u> waste fluids or any well drilled or adjacent to an oil or gas pool for the purpose of obtaining water to be used in production stimulation or repressuring operations.

Well Stimulation Treatment. Any treatment of a well designed to enhance oil and gas production or recovery by increasing the permeability of the formation. Well stimulation treatments include, but are not limited to, hydraulic fracturing treatments and acid well stimulation treatments. Well Stimulation Treatments do not include steam flooding, water flooding, or cyclic steaming and do not include routine well cleanout work, routine well maintenance, routine removal of formation damage due to drilling, bottom hole pressure surveys, or routine activities that do not affect the integrity of the well or the formation,

SECTION 3. APPLICABILITY.

A. Comprehensive Drilling Plan. Prior to the submittal by each Operator of the first application for a Drilling Use Permit under these Drilling Regulations, the Operator shall submit, for review and approval by the City Council, a Comprehensive Drilling Plan. The Comprehensive Drilling Plan shall guide the development of Annual Consolidation and Drilling Plans and the issuance of Drilling Use Permits. A new Comprehensive Drilling Plan shall be required by each new or successive Operator. A previously approved Comprehensive Drilling Plan may be amended or replaced upon separate application to and approval by the City Council when conditions change.

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- B. Annual Consolidation and Drilling Plan. Prior to the end of each calendar year of the Comprehensive Drilling Plan period, Operator-shall-submit, for review and approval by the Community Development Director, an Annual Consolidation and Drilling Plan in accordance with the provisions of Section 31.
- **C.** Drilling Use Permit. An application for a Drilling Use Permit shall be required for any Drilling Project. All Drilling Use Permits shall be consistent with the approved Comprehensive Drilling Plan and current Annual Consolidation and Drilling Plan. A Drilling Use Permit shall only be issued for drilling in accordance with these Drilling Regulations, Drilling without a Drilling Use Permit is prohibited.

SECTION 4. APPLICATION FILING, PROCESSING, REVIEW, DRILLING PLAN **AMENDMENTS** AND FEES.

A. Filing.

- 1. Comprehensive Drilling Plan. A Comprehensive Drilling Plan covering the period of Oil Operations through the year 2032, shall be filed by each Operator for review and approval by the City Council, prior to the approval of any Annual Consolidation and Drilling Plan or issuance of any Drilling Use Permit. The Comprehensive Drilling Plan shall include:
- Maximum number of wells proposed to be drilled or redrilled through 2032 which shall not exceed a total of 30 wells, as well as the number of wells for planned decommissioning and abandonment;
 - b. Location, extent and depth of currently known oil-producing formations and zones;
 - Scope, location, depth and extent of the existing and proposed Drill Sites; C.
 - Type, nature and scope of the anticipated oil recovery methods: d.
 - Size, type and location of the structures and Drilling Equipment that may e. be utilized in connection with Oil Operations;
- f. Type and nature of the anticipated maintenance activities and equipment;
- Description of the type, number and location of existing wells and α. equipment used in existing Oil Operations and proposed changes as to the type and/or future utilization of those wells within the time period covered by the Comprehensive Drilling Plan;

A surface survey, which indicates the location and number of wellheads within the Oil Field, and a plat of each sub-surface directional survey, which shall be prepared by a land surveyor or civil engineer registered in the State of California and qualified to prepare such surveys. 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

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made by me or under my direction on (date); and accurately reflects the requirements contained in Section 42 of the Drilling Regulations." The survey shall be based on the City's GPS coordinate system and be in AutoCAD format (latest version). A digital copy of the survey shall also be submitted.

Additional information as may be required by the Community Development Director to demonstrate consistency with these Drilling Regulations and the Specific Plan, Any revisions to the Comprehensive Drilling Plan shall be reviewed and approved by the City Council in the same manner as the initial Comprehensive Drilling Plan. It is the responsibility of the Operator to establish and provide to the City Council and/or Community Development Director substantial evidence in support of the required findings, as set forth in Section 5 (Findings and Decision) below, needed to support a decision to approve a Comprehensive Drilling Plan

- 2. Annual Consolidation and Drilling Plan. Prior to the end of each calendar year of the Comprehensive Drilling Plan period, an Annual Consolidation and Drilling Plan shall be filed by each Operator in accordance with the provisions of Section 31.
- 3. Drilling Use Permit. An application for a Drilling Use Permit shall be completed, filed, and processed in compliance with these Drilling Regulations, prior to the commencement of any Drilling Project. The application package shall include all information specified in the application and any additional information required by the Community Development Director in order to conduct a thorough review of the proposed Drilling Project.

B. Drilling Plan, Permit Application and Renewal Fees.

- 1. The Operator shall pay to the City at the time of the filing of an application:
 - a. A fee for the processing of the initial Comprehensive Drilling Plan, as well as a fee for processing any amended, updated or replacement Comprehensive Drilling Plan, and including payment of any applicable Specific Plan surcharge as permitted by State Law (California Government Code Section 65456) and in accordance with CCMC Section 17.570.025.
 - b. A fee for the processing of each Annual Consolidation and Drilling Plan, and including payment of any applicable Specific Plan surcharge as permitted by State Law (California Government Code Section 65456) and in accordance with CCMC Section 17.570.025.
 - c. A fee for each Drilling Use Permit or transfer of ownership, and including payment of any applicable Specific Plan surcharge as permitted by State Law (California Government Code Section 65456) and in accordance with CCMC Section 17.570.025.
 - d. Applicable fees for grading, building, mechanical, electrical, inspections, and similar construction or fire/safety inspection activities related to

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construction, development, operation or abandonment of any well or drill site shall apply as set forth in the City's current Fee Schedule,

- **2.** The fees set forth in this Section shall be established by a resolution of the City Council per Section 9.G.
- All <u>unpaid</u> permit fees, required by these <u>Drilling Regulations</u>, shall constitute a lien on the premises where the drilling is occurring to the extent of the Operator's interest therein.
- 4. The permit fees, as required in <u>these Drilling Regulations</u>, are in addition to any other applicable fees required by the CCMC<u>or any costs incurred by the Oil</u> <u>Operator related to preparation of application materials and/or compliance with any approved Plan/Permit requirements and conditions.</u>
- 5. In addition to the permit fees required by this Section 4.B, Operator shall maintain a Draw-Down Account as set forth in Section 9.A.

C. <u>Drilling</u> Plans, Permits and Environmental Conditions.

As a condition of approving any Comprehensive Drilling Plan or Annual Consolidation and 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 these Drilling Regulations, or plan or study required by these Drilling Regulations or the Specific Plan, or impose additional requirements, standards, thresholds or mitigation measures as determined by the City Council or Community Development Director, as applicable, to be necessary or appropriate to adequately protect the public health, safety and welfare, and the environment from Oil Operations. The City Council or Community Development Director, as applicable, may also determine that certain requirements, standards, thresholds or mitigation measures in these Drilling Regulations, should be waived or lessened in order to avoid unintended environmental impacts. Any such modifications or substitutions shall generally be consistent with the intent and/or equivalent in scope to the requirements, thresholds or mitigation measures as approved at the time of adoption of these Drilling Regulations, the Specific Plan, the EIR or the MMRP, unless such adopted provisions are deemed obsolete or inapplicable. Modifications that could result in substantial deviations from the provisions originally adopted may be subject to subsequent review and approval through the Specific Plan amendment process and/or subsequent environmental review.

D. Notice of Drilling Plans.

1. Comprehensive Drilling Plan. Mailed notice shall be sent to all property owners and occupants within a 500-foot radius from the Specific Plan area boundary at least 21 calendar days prior to the date of the City Council public hearing at which the Comprehensive Drilling Plan will be considered. Notice shall be published in a newspaper of general circulation at least 14 days prior to the date of the City Council public hearing. In addition, the Community Development Director may provide additional notice, with content or using a

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distribution method as the Community Development Director determines is necessary or desirable (e.g., on the City's website, through the City's email notification system, etc.).

2. Annual Consolidation and Drilling Plan. Mailed notice shall be sent to all property owners and occupants within a 500-foot radius from the Specific Plan area boundary at least 21 calendar days prior to the anticipated date of decision by the Community Development Director. In addition, the Community Development Director may provide additional notice, with content or using a distribution method as the Community Development Director determines is necessary or desirable (e.g., on the City's website, through the City's email notification system, etc.).

<u>E. Drilling</u> Plan Approval and Permit Issuance.

- 1. The Comprehensive Drilling Plan shall be reviewed and <u>may be</u> approved by the City Council in accordance with the Findings set forth in Section 5.
- 2. All Annual <u>Consolidation and</u> Drilling Plans shall be reviewed and <u>may be</u> approved by the Community Development Director in accordance with the provisions set forth in Section 31.
- **3.** All Drilling Use Permits shall be reviewed and <u>may be</u> approved by the Community Development Director in accordance with the provisions of <u>these</u> <u>Drilling Regulations and the Specific Plan</u>.
- 4. No Drilling Use Permit shall be issued, nor shall any construction permits be issued, until all permit fees are paid in full, <u>the Draw-Down Account has been established</u>, <u>all bonds and insurance are in place and effective</u>, and all existing Oil Operations are in substantial compliance with all conditions of existing Drilling Use Permits and all provisions of these Drilling Regulations.
- F. Drilling Plan Amendments. A previously approved Comprehensive Drilling Plan may be amended or replaced upon separate application to and approval by the City Council when conditions change. An application for amendment to a previously approved Comprehensive Drilling Plan shall be processed in the same manner as the original Comprehensive Drilling Plan,

SECTION 5. FINDINGS AND DECISION.

The Comprehensive Drilling 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, and the environment.

- A. The Comprehensive Drilling Plan is consistent with the provisions of <u>these Drilling</u> <u>Regulations and the Specific Plan</u> and all other applicable provisions of the CCMC.
- **B.** Reasonable and feasible measures were identified and required to reduce and minimize potentially significant impacts from the Oil Operations and those

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measures required per the adopted Mitigation Monitoring and Reporting Program (MMRP) have been incorporated into the Comprehensive Drilling Plan and its related implementation features.

C. The Oil Operations described in the Comprehensive Drilling Plan will not be detrimental to the public interest, health, safety, or general welfare, or the environment, or injurious to persons, property, or improvements in the vicinity of and areas surrounding the Oil Field.

SECTION 6. CONDITIONS ON ASSIGNMENT OF <u>DRILLING USE</u> PERMIT<u>AND</u> <u>DRILLING PLANS.</u>

- A. No Drilling Use Permit issued pursuant to these Drilling Regulations, may be assigned or otherwise transferred by the Operator without first notifying the Community Development Director of the proposed transfer, and submitting in writing the following information: (1) the name and address of the proposed new Operator, (2) the 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 new Operator's agent designated for service of notices, (5) written acknowledgement by the proposed new Operator that it will be bound by, and will comply with, all provisions of these Drilling Regulations and the Specific Plan and all conditions imposed in connection with any permits, consents or approvals granted pursuant to these Drilling Regulations, and (6) information from the proposed new Operator that will satisfy the financial responsibility required by these Drilling Regulations and the Specific Plan.
- **B.** Prior to the Community Development Director's consideration of an assignment, a new application for a Drilling Use Permit shall be filed, and/or as appropriate an application for a new or amended Comprehensive Drilling Plan or Annual Consolidation and Drilling Plan, and the new Operator shall be required to comply with all conditions and requirements, which are in effect at the time of assignment.
- C. Any existing Drilling Use Permit, which has been assigned or transferred contrary to the provisions of <u>these Drilling Regulations</u>, 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 <u>these</u> <u>Drilling Regulations and the Specific Plan</u> (including but not limited to an ability to comply with all of the insurance, indemnification and other financial responsibility requirements), as well as the conditions and requirements of any Comprehensive <u>Drilling Plan and Annual Consolidation and Drilling Plan (initial, amended or replaced) in effect at the time of transfer.</u> No later than 90 days after the assignment or transfer, the new Operator shall provide the Community Development Director with evidence that all new Operator's personnel have received training and are

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capable of fully complying with all safety and environmental protection requirements.

E. 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 new Operator(s) accepts such conditions in writing.

SECTION 7. CONDITION COMPLIANCE.

A Condition Compliance Plan.

- 1. Concurrent with the submission of the Comprehensive Drilling Plan, the Operator shall submit a Condition Compliance Plan to the Community Development Director for review and approval. The Condition Compliance Plan shall detail how and when measures will be implemented to ensure effective implementation of all requirements of these Drilling Regulations, the Specific Plan and the adopted Mitigation Monitoring and Reporting Program (MMRP) and shall include a detailed description of the steps the Operator shall take to assure compliance with all provisions of the Drilling Regulations, the Specific Plan and the MMRP, including but not limited to, all of the monitoring programs for noise, vibration, odors, etc., called for by the Drilling Regulations, the Specific Plan and the MMRP.
- 2. The Condition Compliance Plan shall be <u>amended</u> as necessary, in <u>conjunction</u> with the <u>Annual Consolidation and Drilling Plan</u>, and submitted to the Community Development Director for approval. The Operator shall respond to any request for additional information by the Community Development Director within 30 days of receiving such request, unless extended by the City.
- 3. The Operator shall fully comply, and shall ensure that all employees and contractors fully comply, with all provisions of the approved Condition Compliance Plan.
- 4. The Operator shall comply with all timelines and review procedures identified in the Condition Compliance Plan. If specific timelines cannot be met as approved, <u>no further Drilling Use Permits shall be issued until it has reached an</u> agreement with the City on the best approach for implementing a requirement of <u>these Drilling Regulations</u>, the Specific Plan or the Condition Compliance Plan.
- B. On-Site Monitor. At the City's discretion, the City may require the Operator to fund one or more persons (hereafter "On-Site Monitor") to monitor compliance with these Drilling Regulations, the Specific Plan, and/or the MMRP in connection with any aspect of the performance of oil activities under the Specific Plan. The number of On-Site Monitors shall be determined by the Community Development Director and shall take into account the scope and nature of the work to be performed. The On-Site Monitor(s) shall be knowledgeable, qualified, or certified in oil and gas

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1. The Condition Compliance Plan shall provide 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 Condition Compliance Plan.

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Version 9-15-17 PUBLIC REVIEW DRAFT TRACK CHANGES COMPARE TO APRIL 2013 DISCUSSION DRAFT production operations. The On-Site Monitor(s) shall be selected by the Community Development Director, in consultation with the Operator. The On-Site Monitor(s) shall report to the Community Development Director. The responsibilities of the On-Site Monitor(s) shall include:

- 1. On-site, day-to-day monitoring of construction or drilling and redrilling activities as determined by the City;
- 2. Ensuring the Operator and all employees, contractors and other personnel who administer, conduct and/or carry out the Oil Field operations, have, knowledge of and are in compliance with all applicable provisions of these Drilling Regulations, the Specific Plan, the approved Condition Compliance Plan and the adopted MMRP;
- Evaluating the adequacy of drilling and/or construction measures, and proposing improvements to the Operator and their respective contractors, and the City;
- <u>4</u>. Requiring correction of activities that are in violation of any provision of <u>these</u> <u>Drilling Regulations</u>, the <u>Specific Plan</u>, the <u>Condition Compliance Plan or the</u> adopted MMRP or are determined to be unsafe or dangerous conditions; and
- 5. Reporting to and maintaining prompt and regular communication with the various City agencies with oversight responsibility at the project site or Oil Field, other appropriate agencies, such as DOGGR and SCAQMD, and with the Operator and personnel responsible for Operator's contractor performance and compliance.

SECTION 8. EXPIRATION, REVOCATION OR MODIFICATION OF PERMIT.

- A. <u>To ensure continued compliance with the provisions of this Chapter, each approved</u> Drilling Use Permit shall expire <u>one year</u> from the date of approval if actual drilling operations have not commenced, unless otherwise specified in the Permit.
- B. If drilling or other substantial <u>well completion</u> work <u>or rework activity</u> on a well ceases for a period of 180 days, and that well has not been completed for active production or injection, or is not otherwise being managed as an inactive or idle well consistent with the terms and requirement under DOGGR, as determined by the Community Development Director, the Drilling Use Permit for that well shall expire. Operator shall abandon such well in accordance with Section 49, unless a new Drilling Use Permit has been obtained or the active Permit has been granted an extension.
- **C.** A time extension for the expiration period set forth in <u>Section 8</u>, A and 8, 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,

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C. Reactivation of an abandoned well shall require the filing and approval of a new Drilling Use Permit application by the Community Development Director.

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the Community Development Director may extend the time to establish an approved Drilling Use Permit<u>up to an additional 12 months.</u>

- D. A Drilling Use Permit may be revoked or modified by the Community Development Director in reliance on written or oral testimony or other information which, by <u>substantial</u> evidence, shows it is in the interest <u>and protection</u> of the public health, safety <u>and</u> welfare, <u>and</u> the environment, to revoke or modify the Permit.
 - The Community Development Director shall hold a public hearing to determine if the Permit granted in compliance with the provisions of <u>these Drilling</u> <u>Regulations</u>, 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 property owner of a revocation or modification hearing, the Drilling Use Permit shall be automatically suspended. When necessary, in order to protect <u>the public health</u>, <u>safety and welfare</u>, <u>and</u>, 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.

SECTION 9. OTHER ADMINISTRATIVE ITEMS.

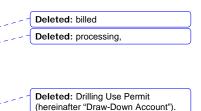
A. Draw-Down Account.

- The Operator shall maintain an account with the City (<u>hereinafter "Draw Down</u> <u>Account</u>") from which actual costs will be <u>invoiced</u> and deducted for the purpose of expenses involved in the City's review, assessment, monitoring and enforcement of the <u>permits</u>, <u>plans</u>, <u>programs</u>, <u>studies</u> and <u>surveys</u> required by these Drilling Regulations, the Specific Plan or the MMRP. The City's Chief Financial Officer shall maintain a transactional accounting of the Draw-Down Account, which shall be open to inspection upon the request of the Operator.
- 2. 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.

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- 3. 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 <u>review</u>, <u>assessment</u>, <u>monitoring and enforcement of the permits</u>, <u>plans</u>, <u>programs</u>, <u>studies and surveys required by these Drilling Regulations</u>, the Specific Plan or the MMRP.
- Withdrawals from the Draw-Down Account must be approved by the City's Chief Financial Officer.
- 5. 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.
- 6. 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.
- **B.** Bond and Insurance Requirements. No Drilling Use Permit shall be issued pursuant to these Drilling Regulations, unless the Operator has complied with and satisfied all bond and insurance requirements established by resolution of the City Council, which may be periodically updated. These <u>bond and</u> insurance requirements shall be in addition to all other indemnification, insurance and performance security required by federal, state, and local regulations and permits.

C. Indemnification.

- 1. 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: (a) the approval of the permits, plans, programs, studies, and surveys required by the Drilling Regulations, the Specific Plan or the MMRP; (b) construction, implementation or operation of the Drilling Project covered by the Drilling Use Permit and any Oil Operations, or activities related thereto; (c) the abandonment of any wells, including the remediation related thereto; and (d) any spills or other releases of crude oil or other substances, whether liquid, gaseous or solid.
- 2. Operator, and any approved assignee and transferee, 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

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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. Operator's Drilling Project, Oil Operations and other activities related thereto.

- D. Consent and Agreement, Prior to the approval of the Comprehensive Drilling Plan, 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 property owner(s) and recorded in the County Recorder's Office. The covenant and agreement shall run with the land and shall be binding on any subsequent Operators, owners, and tenants or occupants of any portion of the Oil Field. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Community Development Director. 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.
- E. Costs of Implementing, Monitoring and Enforcing Conditions and Requirements. The Operator shall be fully responsible for all reasonable costs and expenses incurred by the City or any City contractors, consultants, or employees, in implementing, monitoring, or enforcing these Drilling Regulations, the Specific Plan or the MMRP, including but not limited to, costs for permitting, permit condition implementation, mitigation monitoring, reviewing 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.
- F. Penalty for Violation of Conditions and Requirements. 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 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. A notice of violation and related penalty may be appealed in accordance with the procedures set forth in CCMC Sections 1.02.045 and 1.02,050.
- **G.** 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 these Drilling Regulations and the Specific Plan, including, but not

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limited to: (1) the processing of Comprehensive Drilling Plans, Annual <u>Consolidation</u> and Drilling Plans and Drilling Use Permit applications as set forth in Section 4: (2) the review and processing of Abandonment Plans; (3) review of plans and studies; and (4) annual inspections of Well sites and other equipment.

H. Periodic Review.

- 1. The <u>Community Development Director</u>, shall conduct a comprehensive review of the provisions of <u>the Specific Plan</u>, including these Drilling Regulations, at least every five years to determine if the provisions of <u>these Drilling Regulations</u> and the Specific Plan are adequately protecting the public health, safety and, welfare and the environment. Such reviews shall, among other things, consider whether additional <u>reasonable and feasible measures</u> should be added, appended, <u>modified</u> 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 <u>and the environment</u> should be incorporated into the provisions of <u>the Specific Plan or these Drilling Regulations</u>.
- 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 these Drilling Regulations and the Specific Plan, 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 and the Operator for review and comment. All comments on the draft report from the public 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 proposed amendments to the Specific Plan, which includes the Drilling Regulations, should be submitted to the City Council.
- **3.** At the discretion of the Community Development Director, reviews of <u>the</u> <u>Specific Plan, including these Drilling Regulations</u>, 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 <u>adoption of the Specific Plan</u>, <u>unless the Community</u> Development Director determines that such initial review shall occur at an earlier time pursuant to Subsection 3 above.
- I. <u>Regulatory Agency</u>, <u>Records</u>. Operator shall provide to <u>the</u> Community Development Director copies of all documents <u>Operator is required to submit to</u>

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applicable regulatory agencies pertaining to Oil Field Operations, including, but not limited to DOGGR, SCAQMD, RWQCB and CEC.

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 Permanent Structure within the Oil Field area. Plans of the structure to be erected must be submitted to the City's Building Safety Division prior to a 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 as described in Sections 24 B and 27, respectively.
- C. The permits required by these Drilling Regulations, 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 11. **OPERATING STANDARDS.**

- A. General. The drilling, operation and maintenance of any well, and all other 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, safety and welfare, and the environment.
- B. New Technology. Proven reasonable and feasible technological improvements which are capable of reducing the environmental impacts of drilling and redrilling, or other oil-related operations and maintenance functions, to surrounding uses and the environment, shall be promptly implemented to the extent such technology is commercially available, not cost prohibitive and does not introduce new undesirable effects. As part of the Annual Consolidation and 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), 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 Consolidation and Drilling Plan unless Operator demonstrates the technology is not technologically feasible or is not commercially available.
- C. Compliance with Laws and Regulations. The Operator, including Operator's employees, contractors and other personnel who administer, conduct and/or carry out the Oil Field operations, shall comply with these Drilling Regulations, the

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Specific Plan, the approved Condition Compliance Plan (per Section 7.A), the adopted MMRP, and all applicable laws, regulations and standards of any local, state or federal agency related to drilling, redrilling, reworking, maintenance and production operations. In the event there are any inconsistencies between any such regulations and the provisions of the Specific Plan and/or Drilling Regulations, the more stringent requirement shall apply.

- **D.** Nuisance Requirements. In the event the <u>Oil Operations</u> or any <u>related</u> work within the Oil Field area is determined by the Community Development Director to be a nuisance, or is reasonably likely to create an imminent 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, safety or welfare, or the environment.
- E. Maintenance of Premises. Operator shall keep and maintain all of the <u>Oil Field</u> area in a clean, healthy and sanitary condition in a manner consistent with the type of operation authorized, and shall fully conform to all requirements of City ordinances and regulations with respect to property maintenance.

SECTION 12. FIRE <u>OPERATIONAL</u>, PERMIT, PROTECTION AND EMERGENCY RESPONSE.

- A. <u>Operational</u> Permit. Operator shall obtain an Annual (or Temporary) Operational, Permit, in accordance with the California Fire Code.
- **B.** 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, American Petroleum Institute Industrial Labor Relations and shall be maintained in accordance with the requirements of the Fire Chief.
- **C.** 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 well fire suppression and spill containment training, and other related specialized training and equipment as requested by the Fire Department. 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.

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D. Fire Prevention.

- The Fire Chief may require the immediate cessation of all operations <u>within the</u> <u>Oil Field</u>, whenever, in his or her judgment, <u>a</u> fire hazard exists, <u>as defined in</u> <u>Title 19</u>, <u>Division 1 of the California Fire Code</u>.
- 2. The Fire Chief may also require the emptying, transfer, or removal of petroleum and/or flammable materials from any tank or sump to such location as he or she deems advisable while such hazard exists.
- It shall be unlawful for the Operator to allow flammable liquids or waste materials to flow or remain on the surface of the ground, whether <u>within</u> the <u>Oil</u> <u>Field area</u> or any other premises, public or private.
- 4. It shall be unlawful for any person to smoke or throw a burning object within 25 feet of any derrick, loading rack, tank, or sump containing petroleum or any products thereof, or any flammable liquids.
- E. Audit of Fire Protection Systems and Equipment, The Fire Chief shall require the Operator to prepare, at its sole cost and expense, a review and third-party audit 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. The third-party auditor shall be selected by the Operator and approved by the Fire Chief. 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 noncompliance 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 within 90 days of the date of approval of the Comprehensive Drilling Plan, or at such later date as may be approved by the Fire Chief for good cause shown. Thereafter review and audits shall be required every five years. 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.

F. Spill Containment Response Personnel, Training and Equipment.

1. The Operator shall conduct within the Inglewood Oil Field annual spill containment response training and shall at all times have available 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 shall, at a minimum, include training for the recording of spill events (e.g. date and location of spill, estimated size of spill, all substances involved, resources deployed to respond, and containment timeframe). The spill containment equipment shall comply with the

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requirements of the Local California Unified Program Agency and the EPA and be inspected by the Fire Chief to ensure that it will be effective in the event of a spill.

2. This spill containment response training and equipment required by this subsection shall be in place no later than 90 days following the <u>date of approval of the Comprehensive Drilling Plan</u> or at such later date as may be approved by the Community Development Director in consultation with the Fire Chief, for good cause shown.

G. Emergency Response Plan (ERP).

- 1. Within 180 days of the <u>date of approval of the Comprehensive Drilling Plan</u>, the Operator shall submit an ERP to the Fire Chief. The ERP shall include measures to protect biological species and to revegetate any areas disturbed during an oil spill or clean-up activities (see Section 29, Biological Resources). The Operator shall also ensure that the ERP satisfies all rules and regulations of the EPA, California Code of Regulations, SPCCP, the California Office of Spill Prevention and Response, and the US Department of Transportation relating to onshore pipeline spills, and shall satisfy the provisions of the ERP within 30 days following <u>submittal</u> of the ERP or at such later date as may be approved by the Fire Chief, for good cause shown. The Operator shall review and update the plan at least every two years to ensure the ERP is in compliance with this Section.
- 2. This requirement may be satisfied if the Operator can demonstrate, to the satisfaction of the Fire Chief, that an ERP is being implemented and has been approved for other parts of the Oil Field and can conclusively show that the ERP applies to the Oil Field within the jurisdiction of the City. Additional information may be required by the Fire Chief to demonstrate compliance with this Section.

H. Community Alert Notification System.

- 1. The Operator shall establish, maintain and test on an annual basis, a proposed Community Alert Notification System for automatic notification of area residents and businesses in the event of an emergency associated with Oil Operations that could require residents or inhabitants to take shelter, evacuate, or take other protective measures. The proposed Community Alert Notification System shall be reviewed and approved by the City's Fire and Police Chiefs.
- 2. The Community Alert Notification System required by this subsection shall be in place no later than 90 days following the <u>date of approval of the</u> <u>Comprehensive Drilling Plan</u>, or at such later date as may be approved by the City's Fire and Police Chiefs, for good cause shown.
- I. Annual Emergency Response Drills. Annual Emergency Response Drills shall include the Culver City and Los Angeles County Fire Department, The Operator

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shall demonstrate the effectiveness of the Emergency Response Plan (ERP) by responding to one planned emergency response drill per year which shall be conducted in conjunction with the Culver City and Los Angeles County Fire Department. Emergency response drills required by other agencies that involve Culver City and Los Angeles County Fire Departments can be used to satisfy this provision. In addition, the Operator shall demonstrate the effectiveness of the ERP by responding to not more than two unannounced drills each year, which may be called by the Fire Chief at the Inglewood Oil Field in coordination with Los Angeles County Fire Department, such that no more than two unannounced drills are conducted between both jurisdictions. If critical operations are then underway at the Oil Field, the Operator need not respond to an unannounced drill to the extent such a response would, as a result of such critical operations, create an undue risk of personal injury or property damage, but in such case, the Operator must promptly explain the nature of the critical operations, why response is not possible, and when the critical operations will be completed.

J. Site Assessment. In the event of a spill, leak or discharge from a tank system, j pipelines or any other facility, the Fire Chief and Community Development Director shall be immediately notified. A Site Assessment shall be completed to determine and document the nature, scope and extent of the release and provided to the Community Development Director and the Fire Chief. If the Fire Chief determines that a potential fire or explosion hazard exists, the Site Assessment will be submitted to the Fire Chief within 60 days of the spill leak or discharge, in accordance with the requirements of the California Fire Code. If the spill, leak or discharge presents a potential threat to the environment, including groundwater, or human health, then the Operator shall promptly notify all appropriate local, state and federal agencies.

SECTION 13. SUMPS PROHIBITED,

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 sump hereafter constructed or erected, for the purpose of storing petroleum or flammable liquids or well stimulation flowback liquids.

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.

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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 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 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 sh ... [1]

SECTION 15. TANKS.

- A. API Standards. All tanks and appurtenances shall be constructed in accordance with the API Standard 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 constructed in accordance with the regulations of the Interstate Commerce Commission.
 - 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. Prior to installation of a tank and related apparatus, Operator shall obtain an Operational Permit issued by the Fire Chief.
- C. Restrictions on Size and Number of Tanks.

1. A single tank shall not exceed 5,000 barrels in capacity.

2. There shall be no more than six permanent storage tanks located on the Oil Field at any one time with a total maximum capacity of 24,000 barrels.

- **D. Vapor Recovery.** Oil, wash, and produced water tanks shall be vapor tight and shall be equipped with a vapor recovery system.
- **E.** 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.
- **F.** Leak Detection and Control Plan. Within 180 days of the <u>date of approval of</u> <u>Comprehensive Drilling Plan</u>, 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. <u>Prior to installation of newly constructed tanks, the</u> 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.

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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.

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.

Tank Capacity in 42-Gallon Barrels	Distance from Nearest Tank
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

B. No activity that creates an open flame shall be conducted within 100 feet of a

- storage tank containing flammable liquids, except hot work permitted by the Fire Chief under a hot work permit as defined in the California Fire Code. 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.
- C. 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 or structure shall be constructed within 50 feet of any oil storage tank. New tanks shall be located such that they are not visible from residences, parks or other public areas, and shall not be placed on ridgelines, unless the tank can be fully screened through the use of mature landscaping in accordance with an approved Landscaping Plan (Section 37.A) and the adopted MMRP.

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SECTION 17. PIPING AND ELECTRICAL EQUIPMENT.

- A. The Operator shall maintain and implement a Pipeline Management Plan that complies with the California Fire Code and DOGGR regulations. <u>A copy of the Pipeline Management Plan shall be submitted to the Fire Chief.</u>
- **B.** All pipe and pipe fittings, including valves, gauge <u>glass</u> fittings, and other similar appurtenances shall be designed, installed and maintained to safely withstand the pressure to which they may be subjected.
 - All valves directly controlling the flow of flammable liquids from tanks shall be of the 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 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 <u>displacement</u> 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.
- **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, Secondary Containment.

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 surface storage tank or container is surrounded by <u>impervious</u>, 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 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.

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- 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 <u>potential</u> hazardous condition exists.
- **B.** Any 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 19. TOILET AND WASH FACILITIES.

The Operator shall be required to provide a portable toilet for temporary employees <u>at</u> the Oil Field within 200 feet of the derrick. Sanitary toilet and washing facilities shall be installed at any site where personnel are permanently stationed. Temporary and permanent facilities shall be maintained in a clean and sanitary condition at all times.

SECTION 20. SAFETY AND RISK OF UPSET.

The Operator shall at all times conduct Oil Operations in a manner that minimizes risk of accidents and the release of hazardous materials in accordance with the best available technology and safety devices for the prevention of accidents. Operator shall give written notice to the Fire Chief and Community Development Director, as well as all other required authorities, of any and all <u>reportable</u> accidents occurring as a result of Oil Operations or on the Oil Field site, within two working days of the accident. Failure to provide the required notice may result in revocation of the Drilling Use Permit in accordance with the provisions of Section 8. The Operator shall comply with the following provisions:

- A. Blowout Preventer, Operator shall not drill a well without equipping such well with a blowout preventer, installed and maintained as required by DOGGR and in compliance 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, a blowout preventer, 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 preventer, equipment at the onset of operations in accordance with the most requirements of DOGGR. Blowout preventers, shall be maintained in good condition and shall be required to be tested at intervals as requested by DOGGR. Blowout preventer, flanges and kill valves at the casing head shall be kept free of fluids to allow for routine inspection at any time.
- **B.** Well Casings. Operator shall equip the well with casings of sufficient strength and with safety devices in accordance with DOGGR requirements.

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- **C. Safety Precautions.** The Operator shall comply with all of the current safety precautions required by any State agency or the City.
- **D. Belt Guards.** Belt guards shall be required over all drive belts on drilling, redrilling and reworking equipment. Guarding shall be in compliance with Title 8 of the California Code of Regulations, Section 6622, or as may be subsequently amended.

E. Secondary Containment for Oil.

- 1. 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 oil tank (previously existing or newly installed), the Operator shall provide containment at a level determined by the Public Works Director/City Engineer to be feasible and adequate for containment.
- 2. Except as provided in Section 34.E.1, 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 these Drilling Regulations and the Specific Plan.
- F. <u>Retention</u> Basins. All retention basins used in Oil Operations shall be adequately <u>sized</u>, sited, inspected, maintained and operated to <u>handle a 100-year storm event</u> to the satisfaction of the Public Works Director/City Engineer.

SECTION 21. AIR QUALITY, PUBLIC HEALTH AND CLIMATE CHANGE.

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, and shall comply with the following provisions:

- A. 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.
- B. Odor Minimization Plan. <u>Within 90 days of acceptance of the Comprehensive</u> <u>Drilling Plan, the</u> Operator shall submit an Odor Minimization Plan to be reviewed

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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 Odor Minimization Plan. The Odor Minimization Plan shall be designed to ensure protection of public health, safety and welfare; provide detailed information about the Drilling Project(s) and 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 Odor Minimization 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 Odor Minimization Plan shall be reviewed by the Operator on an annual basis to determine if modifications to the Odor Minimization Plan are required and report findings to the Community Development Director. Such findings and proposed modifications to the Odor Minimization Plan shall be submitted to the Community Development Director for review and approval. Operator shall comply with all provisions of the approved Odor Minimization Plan.

C. Air Monitoring.

1. Air Monitoring Plan. Operator shall submit an Air Monitoring Plan to be reviewed and approved or conditionally approved by the Community Development Director. At a minimum, the Air Monitoring Plan shall address related air pollutant emissions monitoring and tracking requirements as required by SCAQMD and the MMRP, and shall include any additional reasonable measure requested by the Community Development Director to ensure protection of the public health, safety and welfare, and the environment and/or as necessary to respond to complaints or unsatisfactory monitoring results. The Air Monitoring Plan shall be designed to ensure the public health, safety and welfare, and the environment through the reduction in air toxics and odorous emissions and reduce greenhouse gas emissions from Oil Operations. The Air Monitoring 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, or reworking operations, the Operator shall monitor for hydrogen sulfide and total hydrocarbon vapors as specified in the approved Air Monitoring Plan. Hydrogen sulfide shall also be monitored using mobile monitoring equipment in response to odor complaints or when onsite odors are encountered by

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operating personnel. Total hydrocarbon vapors shall be monitored, so as to <u>comply with</u> the requirements of SCAQMD Rule 1173, using mobile 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 specified in the approved <u>Air Monitoring</u> 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 <u>Air Monitoring</u> Plan. For drilling, redrilling <u>or</u> reworking monitors, the alarms shall be audible and/or visible to the person operating the drilling, redrilling <u>or</u> reworking shall be taken:

- a. 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 and reworking 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.
- b. At a hydrogen sulfide concentration equal to or greater than 10 parts per million, the Operator shall promptly 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.
- c. At a total hydrocarbon concentration equal to or greater than 500 parts per million but less than 1,000 parts per million, the Operator shall immediately investigate the source of the hydrocarbon emissions and take immediate corrective action to eliminate the source. The corrective action taken shall be documented in the drilling, redrilling, reworking or maintenance log, or applicable inspection and maintenance logs. If the concentration is not reduced to less than 500 parts per million within 30 minutes of the first occurrence of such concentration, the Operator shall shut down the drilling, redrilling or reworking in a safe and controlled manner, until the source of the hydrocarbon emissions has been eliminated, unless shutdown creates



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a health and safety hazard. <u>When an alarm is received, the Operator shall</u> immediately notify and provide access and the right to investigate the event as necessary to all agencies with jurisdiction over the Oil Field, including the Culver City Fire Department, the Los Angeles County Fire Department -Health Hazardous Materials Division, DOGGR, and SCAQMD.

- **d.** At a total hydrocarbon concentration equal to or greater than 1,000 parts per million, the Operator shall promptly commence the shutdown of the drilling, redrilling or reworking operations, or other source, in a safe and controlled manner, until the source of the hydrocarbon emissions has been eliminated, unless shutdown creates a health and safety hazard. The corrective action taken shall be documented in the drilling, redrilling, reworking or maintenance 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 the Culver City Fire Department, the Los Angeles County Fire Department Health Hazardous Materials Division, DOGGR, and SCAQMD.
- e. The Operator shall keep a record of the levels of total hydrocarbons and hydrogen sulfide detected at each of the monitors, which shall be retained for at least five years. The Operator shall notify the Fire Chief within 48 hours in the event of the occurrence of any hydrogen sulfide concentration of one part per million or more, or any total hydrocarbon concentration of 500 parts per million or more. At the request of the Fire Chief, the Operator shall make available the retained records from the monitoring equipment.
- 2. City Testing. In the event of a gas release in the Oil Field or in response to complaints received regarding odors in the Oil Field, <u>substantiated by City personnel called to the location of the odor</u>, the City may take grab samples of the air <u>outside the Oil Field boundary</u> to test for airborne toxins including hydrogen sulfide. The Operator shall be required to pay for all of the City's cost to sample the air including, without limitation, the costs to obtain vacuum canisters and teflar bags for air sampling, the costs to contract with a local laboratory to pick up the canisters and teflar bags immediately after sampling takes place and transport the samples to a laboratory for immediate analysis as required to obtain a valid and accurate test of the air and report for the presence and concentration of airborne toxins. The Operator shall also be responsible for the costs for City personnel to be trained in the proper techniques for conducting the air sampling.
- D. Portable Flare for Drilling. To reduce air toxics emissions, odorous substances emissions, and greenhouse gas emissions, the Operator shall have a gas buster and a portable flare, approved by SCAQMD, at the Oil Field and available for immediate use to remove any gas encountered during drilling operations from drilling muds prior to the muds being sent to the shaker table, and to direct such gas to the portable flare for combustion. The portable flare shall record the volume of gas that is burned in the flare. The volume of gas burned in the flare shall be

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documented in the drilling log. The Operator shall notify the Fire Chief and SCAQMD within 48 hours in the event gas is burned by the flare, and shall specify the volume of gas that was burned in the flare. No drilling or redrilling shall be conducted in areas that are known to penetrate the Nodular Shale zone, or where pressurized methane is known or reasonably suspected to exist, unless a fully operational and properly maintained gas buster and portable flare are installed on the rig. All other drilling and redrilling operations shall be conducted so that any measurable gas that is encountered can, and will, be retained in the well bore until the gas buster and portable flare are installed on the rig, after which the gas will be run through the system. The Operator shall immediately notify the Fire Chief and SCAQMD in the event any gas from drilling or redrilling operations is released into the atmosphere without being directed to and burned in the flare.

- E. Oil Tank Pressure Monitoring and Venting. All oil tanks that contain or could contain oil shall have a fully operational pressure monitoring system, of a type and design approved by the Fire Chief that continuously measures and digitally records the pressure in the vapor space of each tank. The detection system shall notify the Operator via an alarm when the pressure in the tank reaches within 10 percent of the tank relief pressure... 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.
- F. Odor Suppressant for Drilling and Redrilling Operations. The Operator shall use an odor suppressant spray system on the mud shaker tables for all drilling, redrilling, well stimulation and well reworking operations that use mud shaker tables, or equivalent, to ensure that no odors from such operations can be detected at the Outer Boundary of the Oil Field. In addition, an automatic electronic alarm shall be installed at the tank relief outlets (vents) to notify the Operator if any release occurs.
- **G.** Closed Systems for Produced Oil and Water. The Operator shall ensure all 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.

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- **H. Off-Road Diesel Construction Equipment Engines.** All off-road diesel construction equipment shall comply with the following provisions:
 - 1. Utilize CARB/EPA Certification Tier 3 or better certified engines for engines below 750 horsepower and Tier 2 engines for engines at or above 750 horsepower or other methods approved by CARB as meeting or exceeding the Tier 2 or Tier 3 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.
- I. Drill Rig Engines. All drilling, redrilling, reworking and maintenance rig diesel engines, except rigs powered by on-road 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 <u>Clean Technologies such as natural gas-powered drill rigs or other</u> 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 <u>Consolidation and</u> Drilling Plan.
- J. Drilling and Redrilling Setbacks. The following setbacks shall apply within the Oil Field for drilling or redrilling:
 - 1. Drilling.
 - a. At least 400 feet from Developed Areas.
 - **b.** At least 75 feet from any public roadway.
 - **c.** The <u>Top Hole</u> well hole setbacks prescribed in this subsection may be reduced at the discretion and approval of the <u>City Council</u> if it can be determined the setback reduction will not be detrimental to <u>the public</u> health, safety or welfare, or the environment.
 - **d.** As part of the Consolidation and Drilling 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 an estimated

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- 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 <u>Consolidation and</u> 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 <u>Consolidation and</u> Drilling Plan, as required by described in Section 31.C.
- K. Fugitive Dust Control Plan. Within 120 days following the date of approval of the Comprehensive Drilling Plan, 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 to the Public Works Director/City Engineer for review. The Fugitive Dust Control 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 Fugitive Dust Control 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.
 - 1. 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;
 - **2.** Application of CARB-precertified, or equivalently effective, non-toxic soil binders to disturbed areas upon completion of demolition;
 - **3.** Application of water to disturbed soils after demolition is completed or at the end of each day of cleanup;
 - 4. Prohibition against demolition activities when wind speeds exceed 25 mph;
 - 5. 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;

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- 6. 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;
- 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;
- 8. 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;
- **9.** Limit vehicular traffic to established paved and unpaved roads and parking areas;
- **10.** Requirement that maximum speed on unpaved roads be limited to 15 miles per hour;
- 11. 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;
- **12.** Application of CARB-precertified, or equivalently effective, non-toxic soil binders annually to unpaved parking areas;
- Application of CARB-precertified, or equivalently effective, non-toxic soil binders, or daily watering, or installation of temporary coverings to storage piles;
- 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);
- 15. Planting of tree windbreaks, consistent with the approved Landscaping Plan<u>or</u> installation of engineered windbreaks, such as wind fences, on the windward perimeter of construction projects if adjacent to open land;
- **16.** Planting of vegetative ground cover in disturbed areas, consistent with the approved Landscaping Plan, as soon as possible;
- 17. 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

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- **18.** 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.
- L. Inspection and Maintenance Program Information. Upon request and reasonable prior notification, 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.
- **M.** 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.

SECTION 22. NOISE ATTENUATION.

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

A. Noise Limits.

- All Oil Operations on the Oil Field shall comply with the noise provisions of the CCMC Title 9, Chapter 9.07 (Noise Regulations), expect as specifically exempt and otherwise regulated by these Drilling Regulations, the Specific Plan or the <u>MMRP</u>. In the event there are any inconsistencies between Chapter 9.07 and the provisions of these Drilling Regulations, the Specific Plan or the MMRP, these Drilling Regulations, the Specific Plan and the MMRP, 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 <u>take</u> steps to avoid such extended periods of noise elevation in the future.

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- 5. Noise produced by Oil Operations shall include no pure tones when measured beyond the Outer Boundary.
- B. 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.
- C. Quiet Mode Drilling Plan. Concurrent with the submission of the Comprehensive Drilling Plan, the Operator shall submit to the Community Development Director for review and approval a Quiet Mode Drilling Plan that would apply between the hours of 6:00 p.m. and 8:00 am. All Oil Operations shall be conducted in conformity with the Quiet Mode Drilling Plan that has been reviewed and approved by the Community Development Director. The Quiet Mode Drilling Plan shall be reviewed by the Operator on an annual basis to determine if modifications to the Quiet Mode Drilling Plan are required and report findings to the Community Development Such findings and the modified Quiet Mode Drilling Plan shall be Director. submitted to the Community Development Director for review and approval. Operator shall comply with all provisions of the approved **Quiet Mode Drilling Plan**, which_shall include, but is not limited to the following:
 - Installation of noise barriers.
 - Personnel shall take particular care when standing back while tripping out of 2. hole to ensure that there is minimal clanging of pipe.
 - 3. While tripping in the hole, steps shall be taken to ensure that the blocks are completely stopped prior to latching the elevators.
 - 4. Whenever latching the elevators, personnel shall lay the pipe in the elevators and latch slowly and as quietly as possible.
 - 5. When handling drill pipe or casing, personnel shall use measures that will prevent hitting the pipe against the cat walk, v-door or other surfaces that would create loud noise.
 - 6. Rubber shall be required on the v-door when picking up pipe.
 - Personnel shall place rubber or wood on the catwalk when rolling pipe off the 7. pipe racks onto the catwalk.
 - 8. Steps shall be taken to minimize any banging of pipe on the catwalk by careful use of the forklift.
 - 9. Hammering on or racking of pipe shall be not permitted.
 - **10.** Operation of the well cellar pump shall not be permitted.
 - **11.** Yelling to other on-location personnel shall not be permitted. Derrick personnel and the driller shall communicate with walkie talkies.

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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 beyond the Outer Boundary. 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.F,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 lownoise 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

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noise provisions. The Operator shall prominently post quiet mode policies at every drilling and redrilling site.

K. <u>Noise Monitoring and Reporting.</u> 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 <u>date of approval of the Comprehensive Drilling Plan</u> or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown.

SECTION 23. VIBRATION REDUCTION.

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

- **A.** 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.
- B. 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 these Drilling Regulations, the Specific Plan and/or the EIR/MMRP, 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.
- C. <u>Vibration Reduction Monitoring and Reporting</u>. 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 and shall be implemented no later than 180 days following the date of approval of the Comprehensive Drilling Plan, except as may be extended for good cause as determined by the Public Works Director/City Engineer.</u> The results of all such monitoring shall be submitted to the Public Works Director/City Engineer on a quarterly basis.

SECTION 24. GEOTECHNICAL.

Operator shall comply with the following provisions:

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- **A. Review.** All proposed grading shall be subject to prior review and approval by the Public Works Director/City Engineer.
- **B.** Geotechnical Investigation. A site-specific geotechnical investigation shall be completed for permanent structures and for grading in excess of 1,000 cubic yards. The Public Works Director/City Engineer may waive this investigation requirement for grading involving between 1,000 and 5,000 cubic yards if there are no permanent structures proposed and grading would not create slopes higher than five feet. The investigation shall be completed by a licensed California Engineering. Geologist and licensed California Geotechnical Engineer and submitted to the Public Works Director/City Engineer for review and approval. The following items must be addressed in the geotechnical investigation.
 - 1. No slope of cut or fill shall have a gradient steeper than two to one (horizontal to vertical) unless specifically approved by a site-specific geotechnical report.
 - 2. Erosion shall be controlled on all slopes and banks so that no sediment or other substances are washed onto public streets or surrounding property. Such control measures may consist of planting and irrigation, dams, cribbing, riprap, sand bagging, netting, berms, or other devices.
 - 3. Cuts and fills shall be minimized to avoid erosion and visual impacts.
 - 4. Slopes shall be restored to their original grade within 30 days of the discontinuance of the use, unless extended by the Public Works Director for good cause shown.
- C. Accumulated Ground Movement Plan. Within 180 days of the date of approval of the Comprehensive Drilling Plan, 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 Accumulated Ground Movement Plan, including subsidence and uplift, which addresses post-Baldwin Hills Reservoir failure studies to be reviewed and approved by the Public Works Director/City Engineer. The Plan shall identify all measurement locations that will be used and shall include points within and beyond the Oil Field. Measurement locations shall extend a minimum of 1,000 feet beyond the horizontal limit of proposed Bottom Holes. Use of existing measurement locations within the Los Angeles County portion of the Oil Field may be included within the Plan. The Plan shall include both vertical and horizontal ground movement, and shall utilize Global Positioning System technology, as well as any other survey methods deemed appropriate by the Public Works Director/City Engineer to provide the level of accuracy required in monitoring ground movement. The Plan shall identify a monitoring period that extends five years after the end of Oil Operations. The Operator shall promptly address any changes, additions, revisions or modifications that may be required to receive the approval of the Plan by DOGGR and the Public Works Director/City Engineer. This requirement may be satisfied if the Operator can demonstrate, to the satisfaction of the Public Works Director/City Engineer, that an Accumulated Ground Movement Plan that meets these requirements is being implemented and has been approved for other parts of the Inglewood Oil Field and can conclusively show that the Accumulated Ground

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Movement Plan applies to the Oil Field within the jurisdiction of the City. <u>Additional</u> information may be required by the Public Works Director/City Engineer to demonstrate compliance with this Section.

- D. Accumulated Ground Movement Survey. Within 60 days of approval of the Accumulated Ground Movement Plan required in Section 24.C, above, the Operator shall implement the Accumulated Ground Movement Survey as described in the approved Accumulated Ground Movement Plan. For drilling proposed within the Oil Field, the Operator must submit the results of the Accumulated Ground Movement Survey to the Public Works Director/City Engineer. The study shall be prepared by a licensed expert approved or selected by the Public Works Director/City Engineer, for determining annual ground movement, including subsidence or uplift. The Accumulated Ground Movement Survey results shall identify ground movement during this first study period, including subsidence or uplift, and include a description of how future ground movement survey results will be analyzed and Measurements shall be made using repeat pass Differentially reported. Interferometric Synthetic Aperture Radar technology to establish baseline conditions, since the post-Baldwin Hills Reservoir failure, to measure future ground movement. Within 30 days of completing the Accumulated Ground Movement Survey, the results of the annual monitoring survey shall be forwarded to DOGGR for review and appropriate action and to the Public Works Director/City Engineer for review and comment, and the Operator shall see that any changes, additions, revisions or modifications that may be required to receive the approval of such agencies are promptly made and approved. Annual survey reports shall be submitted for a minimum of five years after cessation of Oil Operations and the fifth report shall provide 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 satisfied if the Operator can demonstrate to the satisfaction of the Public Works Director/City Engineer, that an annual Accumulated Ground Movement Survey that meets these requirements is being implemented and has been approved for other parts of the Oil Field and can conclusively show that the annual Accumulated Ground Movement Survey applies to the Oil Field within the jurisdiction of the City. Additional information may be required by the Public Works Director/City Engineer to demonstrate compliance with this Section.
- E. Ground Movement Threshold Limits. In the event that the annual monitoring surveys indicate that ongoing ground movement deviates from the baseline measurements, as established by the Accumulated Ground Movement Plan and the initial Accumulated Ground Movement Survey (as required per Section 24.C and 24.D, respectively), by a measurement 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 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

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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 redrilling shall be commenced or approved, 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 redrilling shall be commenced or approved 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.
- 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 <u>across an active fault or within</u> the Alquist-Priolo <u>Earthquake</u> Fault Zone without preparation of a Fault Investigation Report by a California Certified Engineering Geologist, to be reviewed and approved by the Building Official.
- G. Seismic Activity Tracking System. Within 180 days of the date of approval of the Comprehensive Drilling Plan 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 data shall be used to 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 California Integrated Seismic Network, 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 in consultation with the Operator. Documentation of this requirement shall be submitted with each Annual Drilling Plan,
- H. Erosion Control Plan. Within 180 days of the <u>date of approval of the</u> <u>Comprehensive Drilling Plan</u> 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:

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- a. 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;
- b. 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;
- <u>c</u>. 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;
- **d**. 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
- e. 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.
- 2. This requirement may be satisfied if the Operator can demonstrate, to the satisfaction of the Public Works Director/City Engineer that an Erosion Control Plan is being implemented and has been approved for other parts of the Oil Field and can conclusively show that the Erosion Control Plan that meets these requirements applies to the Oil Field within the jurisdiction of the City. Additional information may be required by the Public Works Director/City Engineer to demonstrate compliance with this Section.
- 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 25. GROUNDWATER MONITORING.

Within 180 days of the <u>date of approval of the Comprehensive Drilling Plan</u>, or at such later date as may be approved by the Public Works Director/City Engineer, for good

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cause shown, the Operator shall develop, implement, and carry out a Groundwater Monitoring Program for the Drilling Project site or Oil Field, which shall be submitted to the Public Works Director/City Engineer. The Operator's Groundwater Monitoring Program shall be consistent with all requirements of the RWQCB, and shall be submitted to 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 groundwater monitoring wells in the vicinity of each surface water retention basin, which is permitted 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 Pico Formation, as determined by a licensed California Engineering Geologist to be approved by the Public Works Director/City Engineer. The Program shall address water level and water quality, and shall include deep zone water level monitoring within the Pico Formation and other cap rock units on the west side 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. This requirement may be satisfied if the Operator can demonstrate, to the satisfaction of the Public Works Director/City Engineer, that a Groundwater Monitoring Program that meets these requirements is being implemented and has been approved for other parts of the Oil Field and can conclusively show that the Groundwater Monitoring Program applies to the Oil Field within the jurisdiction of the City. Additional information may be required by the Public Works Director/City Engineer to demonstrate compliance with this Section.

SECTION 26. SURFACE WATER MANAGEMENT.

Within 180 days of the <u>date of approval of the Comprehensive Drilling Plan</u> 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 <u>Surface</u> Water Management Plan, to be reviewed and approved by the Public Works Director/City Engineer, that documents best water management practices. <u>Any modifications to the Surface Water Management Plan shall be submitted to the Public Works Director/City Engineer for review and approval.</u>

- A. The Surface Water Management Plan shall include, but is not limited to the following:
 - 1. Water conservation measures;
 - 2. Provisions for the use of a drip irrigation system;
 - Provisions, for the use of surface water runoff in the retention basins for dust suppression and landscaping;
 - 4. <u>Provisions prohibiting the use of Produced Water from Wells that have</u> <u>undergone a Well Stimulation Treatment for the purpose of irrigation.</u>

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- 5. Provisions addressing 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; and
- 6. Any additional information required by the Public Works Director/City Engineer.
- B. Once a Drilling Use Permit is approved, the Operator and Public Works Director/City Engineer shall review the Surface Water Management Plan every three years to determine if modifications are required.
- C. 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.
- D. This requirement may be satisfied if the Operator can demonstrate, to the satisfaction of the Public Works Director/City Engineer, that a Surface Water Management Plan that meets these requirements is being implemented and has been approved for other parts of the Oil Field and can conclusively show that the Surface Water Management Plan applies to the Oil Field within the jurisdiction of the City. Additional information may be required by the Public Works Director/City Engineer to demonstrate compliance with this Section.

SECTION 27. STORMWATER AND DRAINAGE MANAGEMENT.

- A. 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. Concurrently with the submission of the Comprehensive Plan, and updated annually with each Annual Consolidation and Drilling Plan, the Operator shall provide the Public Works Director/City Engineer with a copy of the SWPPP, and any future modifications, revisions, alterations, or replacements. This requirement may be satisfied if the Operator can demonstrate, to the satisfaction of the Public Works Director/City Engineer, that a SWPPP is being implemented and has been approved for other parts of the Inglewood Oil Field and can conclusively show that the SWPPP applies, to the Oil Field within the jurisdiction of the City. Additional information may be required by the Public Works Director/City Engineer to demonstrate compliance with this Section.
- B. 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 any other applicable laws or regulations. Concurrently with the submission of the Comprehensive, Drilling Plan, the Operator shall provide the Fire Chief with a copy of the SPCCP. Any future modifications, revisions, alterations, or replacements to the SPCCP (to be reviewed at least biennially) shall be submitted to the Fire Chief.
- C. Hydrologic Analysis. A site-specific hydrologic analysis shall be completed to evaluate anticipated changes in drainage patterns and associated increased runoff

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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 for review and approves the hydrologic analysis.

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

A. Storage 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.

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.
- <u>3.</u> 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.
- <u>4.</u> All Drilling Waste shall be disposed of in compliance with all applicable City, regional, State, and Federal rules and regulations.
- 5. 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.
- C. Recycling and Removal Plan. Within 180 days of the <u>date of approval of the</u> <u>Comprehensive Drilling Plan</u> 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 <u>and Removal</u> Plan, to be reviewed and approved by the Public Works Director/City Engineer:

1. The Recycling and Removal Plan, shall include, but not be limited to, the following:

a. Identification of, how recycling will be incorporated into <u>Oil Operations</u>, including debris generated during construction, drilling and other <u>Oil</u> <u>Operations</u>;

b. Use of mulching, composting, and grass-cycling on landscaped areas;

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c. Design and allocation of recycling collection and storage space;

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- <u>e. Employee</u>, education through a series of brief educational sessions to demonstrate how employees can further contribute to recycling and conservation; and
- f. Identification of methods of loading, transport, and receiving locations for all waste from the Oil Field.
- 2. This requirement may be satisfied if the Operator can demonstrate, to the satisfaction of the Public Works Director/City Engineer, that a Recycling and Removal Plan that meets these requirements is being implemented and has been approved for other parts of the Oil Field and can conclusively show that the Recycling and Removal Plan applies to the Oil Field within the jurisdiction of the City. Additional information may be required by the Public Works Director/City Engineer to demonstrate compliance with this Section.

SECTION 29. BIOLOGICAL RESOURCES.

All Oil Operations within the City's jurisdiction shall be conducted in a manner that minimizes impacts to biological resources and shall comply with the following provisions:

- **A. Oil Spill Response.** The Operator shall comply with all provisions of the approved ERP to protect biological species and to revegetate any areas disturbed during an oil spill or clean-up activities. At a minimum, the ERP shall include:
 - 1. Measures to avoid impacts on native vegetation, wildlife habitats, plant and animal species, and environmentally sensitive habitat areas during response and cleanup operations;
 - 2. Measures that identify low-impact site-specific methods for addressing spills or other accidents such as hand-cutting contaminated vegetation and using low-pressure water flushing; and
 - 3. If disturbance cannot be avoided, the ERP shall provide site-specific habitat restoration plans and species-specific measures to mitigate impacts on sensitive species and to restore native plant and animal communities to pre-spill conditions. This plan shall include a schedule for re-establishing vegetation that replicates the habitat disturbed, or, for disturbed habitat previously dominated by non-native species, replacement with suitable native species.
- **B.** Special Status Species and Habitat Protection Plan. Within 180 days of the <u>date</u> of approval of the Comprehensive Drilling Plan, or at such later date as may be approved by the <u>Community Development</u> Director, for good cause shown, the Operator shall prepare, using a qualified biologist approved by the City, a Special Status Species and Habitat Protection Plan, which shall be submitted to the

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Community Development Director for review and approval. The Special Status Species and Habitat Protection Plan shall be reviewed and updated as appropriate annually with each Annual Consolidation and Drilling Plan, or with any Well and Well Pad Abandonment Plan (or similar). Prior to any disturbance of sensitive natural habitat areas as identified in the Plan, the biologist shall conduct a survey of the area to determine if impacts to sensitive natural habitat will occur, including, but not limited to, coastal sagebrush, coyote bush scrub, riparian scrub, and oak woodland, If the biologist determines that impact to sensitive natural habitat will occur, then the Operator shall have a City-approved restoration specialist, with expertise in southern California ecosystems and revegetation techniques, identify habitat restoration and revegetation measures for the Plan. No removal of sensitive natural habitat shall occur until the Plan has been approved by the City. The Plan shall also consider the need for project-specific surveys including sensitive plant surveys, sensitive wildlife surveys in habitat areas that could support sensitive wildlife species, and breeding and nesting bird surveys for activities occurring during the breeding season (February 1 to August 31 for raptors, and March 15 to September 15 for sensitive/common birds). If the gualified biologist determines the need for projectspecific surveys, then the Plan shall detail how and when those project-specific surveys will be conducted. Additionally, the Plan will include a worker training program to ensure all workers on site are aware of protection measures and disturbance limits. The Operator shall comply with all provisions of the Plan. Any modifications to the Plan shall be submitted to the Community Development Director for review and approval.

- C. Listed Plant or Wildlife Species. If federal-or state-listed threatened, endangered, candidate, or special-status plant or wildlife species are found, then the Operator shall comply with all applicable U_S_ Fish and Wildlife Service and California Department of Fish and Wildlife rules and regulations and provide a minimum 3:1 replacement of occupied habitat with occupied habitat. Copies of any, documentation provided to or received from the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to or received from the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife demonstrating compliance with applicable requirements, shall be provided to the Community Development Director.
- D. Monitoring. If the <u>Special Status Species and Habitat Protection Plan determines</u> project-specific surveys <u>are needed</u>, and <u>such surveys</u> find sensitive plants, wildlife species, or nesting birds, a biological monitor hired by the Operator, and approved by the Community Development Director, shall be on site to monitor the impact that the <u>project-specific</u> activities might have on sensitive resources. The biological monitor shall be responsible for the following:
 - Establishing a 300-foot buffer around any active breeding bird nests within which Project activities will be severely restricted to prevent nesting disturbance;
 - 2. Assuring that vegetation removal does not harm sensitive wildlife species;
 - 3. Monitoring for sensitive wildlife species and relocating them to suitable habitat;

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C. Project-Specific Surveys. The following surveys shall be conducted prior to any vegetation removal in sensitive natural habitat as identified in the Special Status Species and Habitat Protection Plan. 1. Sensitive plant survey(s), conducted by a City-approved ecologist/botanist. 2. Sensitive wildlife survey(s) in habitat areas that could support sensitive wildlife species, conducted by a City-approved biologist.¶ **3.** Breeding and nesting bird survey(s) if the drilling activities will occur during the breeding season (February 1 to August 31 for raptors, and March 15 to September 15 for sensitive/common birds), conducted by a City-approved biologist. Deleted: Game

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- 4. Ensuring exclusionary fencing is installed around project-specific sites to reduce impacts to sensitive wildlife;
- 5. Checking potable and non-potable water sources on the Project site daily to ensure that wildlife (including birds) are not accessing them;
- 6. Inspecting all potential wildlife pitfalls no fewer than three times daily throughout and at the end of each work day to ensure no wildlife entrapment. Should wildlife become trapped, the biological monitor shall remove it (if feasible and safe to do so) or immediately contact CDFW;
- 7. Implementing CDFW guidance on the disposal, storage, or curation of wildlife mortality, and reporting wildlife injury and/or mortality to CDFW as soon as possible; and
- **8.** Ensuring that night lighting, dust, and noise resulting from project activities are minimized and kept at a level that would not be expected to have a measurable effect on any identified sensitive wildlife species on the Project site.
- E. Tree and Riparian Scrub Removal. Removal of native or non-native trees and riparian scrub vegetation shall be scheduled, as possible, for removal outside the nesting season to avoid impacts to nesting birds. If avoidance of removal of trees or riparian scrub during the recommended periods is not possible, a City-approved biologist shall perform a survey to ensure that no nesting birds are present prior to removal. If for any reason a nest must be removed during the nesting season, copies of any documentation provided to or received from the U.S. Department of, Fish and Wildlife Service and California Department of Fish and <u>Wildlife demonstrating compliance with applicable requirements</u>, authorization of the nest relocation, and all relocation efforts, shall be provided to the Community <u>Development Director</u>.
- F. Habitat Restoration. Within 60 days of completing Drilling Project activities that impact sensitive natural habitat, the Operator shall begin habitat restoration consistent with the approved Special Status Species and Habitat Protection Plan. Restoration priority shall be given to areas of degraded habitat connecting areas of higher quality habitat and where restoration would produce larger corridors to support the migration and movement of wildlife. The Operator shall replace any loss of sensitive natural habitat at the following ratios:
 - 1. 1:1 for each acre of <u>native scrub vegetation including but not limited to</u> coastal sagebrush or coyote bush scrub, <u>California sagebrush</u>, and <u>California buckwheat scrub</u>.
 - 2. 2:1 for each acre of riparian scrub or oak woodland.
 - 3. 2:1 for each individual special status plant species.
- **G. Jurisdictional Resources.** Prior to implementing Project activities, a qualified biologist shall assess proposed disturbance areas for presence or absence of drainage features potentially regulated by the USACE, the CDFW, and the RWQCB pursuant to Section 404 of the Clean Water Act and Sections 1600 et seq. of the

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California Fish and Game Code. If present, a jurisdictional determination report identifying and describing such areas per agency requirements shall be prepared. If the project activities would impact these features directly or indirectly, the applicable regulatory permits will be obtained prior to commencing with project impacts to jurisdictional drainages. Mitigation shall be incorporated with agency permits and will include a minimum 1:1 replacement ratio of permanent lost jurisdictional drainage and associated resources.

SECTION 30. CULTURAL RESOURCES.

- A. Archeological Training. The Operator shall provide archeological training for all persons who will be involved with ground disturbance activities for the proposed Drilling Project. Documentation that such training has occurred shall be submitted to the Community Development Director prior to conducting any ground disturbance activities. All such persons shall be required to participate in the training and must receive training material prepared by a qualified archaeologist prior to working on ground disturbance activities. The training material shall include, at a minimum, the following:
 - 1. Review of the types of archaeological artifacts that may be uncovered;
 - 2. Examples of common archaeological artifacts to examine;
 - **3.** Review of what makes an archaeological resource significant to archaeologists and local Native Americans;
 - 4. Procedures for notifying involved or interested parties in case of a new discovery;
 - 5. Reporting requirements and responsibilities of construction personnel;
 - 6. Procedures that shall be used to record, evaluate, and mitigate new discoveries; and
 - **7.** Procedures that shall be followed in the case of discovery of disturbed, as well as intact, human burials and burial-associated artifacts.

B. Cultural Resources Assessment.

1. Prior to conducting ground disturbance activities, the Operator shall submit a Cultural Resources Assessment to be reviewed and approved or conditionally approved by the Community Development Director. The Assessment shall be prepared by a qualified City-approved archaeologist and shall contain an archeological, cultural resources, and paleontological assessment of the proposed ground disturbance activities to determine the likelihood of identifying resources. The Assessment shall include a records search, and site reconnaissance, and include recommendations for mitigating potential impacts. In the event that unknown archaeological artifacts are encountered during grading, clearing, grubbing, and/or other ground disturbance, activities, work shall be stopped immediately in the vicinity of the find and the resource shall be

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- 2. The Operator shall have a qualified paleontologist, approved by the Community Development Director, monitor all rough grading and other significant ground disturbing activities in paleontological sensitive sediments. The monitor will have the authority to halt earth-disturbing activities. The sensitive sediments that have been identified within the Oil Field include the Lower to Middle Pleistocene San Pedro Formation and the Middle to Upper Pleistocene Sediment samples shall be collected as deemed Lakewood Formation. necessary during monitoring efforts to recover small vertebrate fossil if they exist. Any fossils recovered during monitoring should be deposited in an accredited scientific institution in perpetuity. In the event that fossils are deposited, the paleontologist will prepare a report describing the results of the monitoring efforts, field and laboratory methods, description of the geology and paleontology, and a description of taxa recovered and analysis performed. A paleontologist will not be required on site if excavation is only occurring in artificial fill or Holocene alluvium.
- **C. Human Remains.** In the event human remains are discovered, the qualified archeologist, in consultation with the Community Development Director, shall determine disposition of the remains <u>after consultation with the County Coroner and Native American Most Likely Descendent</u>, in accordance with California Health and Safety Code §7050.5 and CEQA Guidelines §15064.5(e).

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.

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- B. Annual Consolidation and Drilling, Redrilling, Well Abandonment, and Well Pad Restoration Plan (the "Annual Consolidation and Drilling Plan"). - Prior tothe end of each calendar year, for each year that the Comprehensive Drilling Plan is in effect, the Operator shall-develop and submit an Annual Consolidation ad-Drilling Plan for review and approval by the Community Development Director. The Community Development - Director - shall - complete - the - review - of - the - Annual Consolidation and Drilling Plan (and any amendments) within 45 days of receipt, and shall either approve the Annual Consolidation and Drilling Plan or provide the Operator with a list of deficiencies. The Annual Consolidation and Drilling Plan shall describe all drilling and related activities (including all proposed well simulation treatments, as applicable) 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 Consolidation and Drilling Plan or an amendment thereto. The Annual Consolidation and Drilling Plan shall include the following:
 - 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 the <u>Specific Plan and these Drilling Regulations are sufficiently protective of the public health, safety and welfare, and the environment, then three wells per year may be drilled, until such time that the Community Development Director determines otherwise or the maximum number of allowed new or redrilled wells is reached (as set forth in Section 21.J.1);
 </u>
 - 2. No more than one drilling or redrilling rig erected at any one time;
 - 3. Approximate location and estimated construction dates of all wells proposed to be drilled or redrilled over the following calendar year. This information shall also include wells proposed or permitted to be drilled or redrilled and existing wells in active or potentially active operation in the Los Angeles County portion of the Inglewood Oil Field to the extent such wells may result in jmpacts to Culver City neighborhoods. Impacts from the Los Angeles County portion of the Oil Field shall be taken into account in planning the location and timing of drilling in the IOF;
 - **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;

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- 7. Location of all proposed well Abandonments known at the time of submission of the Annual Consolidation and Drilling Plan;
- Location of all well pads proposed to be abandoned and restored (a separate Restoration Plan will be required per Section 49 and/or Section 51);
- **9.** A proposed schedule and phasing of the drilling, redrilling, well abandonment, well pad abandonment, and restoration activities;
- 10. A proposed schedule and description of maintenance activities and equipment;
- <u>11. A</u> 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;
- 12. 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;
- 13. A description of all grading that will be conducted <u>during</u> the <u>Annual Drilling</u> <u>Plan period</u>;
- 14. Inventory of wells within drilling setbacks, see Section 21.J;
- 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
- <u>16</u>. Identify and report on condition of all existing wells within 1,000 feet of any proposed injection wells.
- **17.** A description of well consolidation, drilling, redrilling, abandonment and restoration activities completed in the previous twelve month period, including a summary comparison of activities that were proposed in the previous year approved Annual Consolidation and Drilling Plan to events that were physically implemented.
- **C. Deep-Zone and Mid-Zone Supplements.** As described in Section 21.J.2, a Deep-Zone Supplement or Mid-Zone Supplement (Supplements) to the Annual Consolidation and Drilling Plan is required for all Deep-Zone Wells or Mid-Zone Wells where the Top Hole is within 800 feet of a Sensitive Developed Area. The Supplements shall include a study of the technical feasibility and commercial reasonability of Slant Drilling to locate the Top Hole of any such well further 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 and still reach the targeted Bottom Hole location. The Operator shall provide the

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Community Development Director with any additional information requested in order to complete review of the Supplement. If any information regarding Slant Drilling is <u>proprietary and/or</u> confidential, the City will enter into an agreement with the Operator to protect such information.

The Community Development Director shall review and <u>consider</u> Supplements within 45 calendar days of submission to the City. The Community Development Director shall either approve the plan or provide a list of deficiencies <u>and/or supplemental</u> <u>information needed</u> 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.

SECTION 32. WELL STIMULATION TREATEMENTS.

(NOTE: The EIR for the Proposed Inglewood Oil Field Specific Plan Project ("Specific Plan EIR") will evaluate the potential environmental impacts of conducting Well Stimulation Treatments, within the Oil Field, performed in a manner consistent with DOGGR's Senate Bill 4 regulations as of July 1, 2015, and the site-specific requirements set forth in the draft Specific Plan. In taking action on the Specific Plan, the City Council will consider the available information, including the Specific Plan EIR, in making a determination as to whether and upon what terms the adopted Specific Plan, including these Drilling Regulations, would allow Well Stimulation Treatments to be conducted within the Oil Field.).

SECTION 33. WELL REWORKING,

- A. No more than two rigs used for reworking 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 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 shall be removed from the Oil Field within seven days following the completion of reworking operations unless the rig will be used on another well at the Oil Field within five days.

SECTION 34. PROCESSING.

All processing operations shall be conducted in accordance with the best available technology and shall comply with the following provisions:

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- A. Limits on Processing Operations. Unless Operator submits to the Community Development Director documentation that additional processing operations are required by DOGGR, the only processing operations permitted at the well site are the dehydration of crude oil and gas produced from the well, the storage, handling, recycling, and transportation of such materials, and those processing operations required for water injection purposes.
- B. Well Pump Motors. All well pumping units shall be operated by electric motors.
- C. Well Pumps. Downhole submersible pumps and low-profile pumping units for production wells <u>shall</u> be used when there is the potential for the pump or pumping unit to be visible to surrounding residences and park users, as determined by the Community Development Director. If the use of downhole submersible pumps and low-profile pumping units is not feasible, Operator shall: (1) demonstrate why it is not feasible; and (2) take additional measures to reduce visibility of the pumps or pumping units to surrounding residences and park users, as determined by the Community Development Director.
- D. Removal by Pipeline Only. All oil, gas, and other hydrocarbon substances, except propane and other related natural gas liquids, 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, unless extended by the Fire Chief for good cause shown, 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:
 - Notwithstanding Section 20.E.2, new pipelines that transport oil or gas from the Oil Field shall be buried below the surface of the ground;
 - 2. <u>Notwithstanding Section 20.E.2, all</u> 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

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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. <u>Copies</u> of any <u>documentation provided to or received from DOGGR demonstrating</u> compliance with <u>these requirements</u> shall be <u>provided</u> 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 <u>as determined by the Public Works</u> Director/City Engineer.
- F. Active Pipeline Plot Plan. Within one year of the <u>date of approval of the</u> <u>Comprehensive Drilling Plan</u>, 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 plot plan <u>prepared by a land surveyor or civil engineer licensed by the State</u> <u>of California depicting exact</u> location of all active pipelines regulated by the California Department of Transportation or California State Fire Marshall owned by the Operator that are located within and outside the Oil Field, including waste water, and trunk and gathering line to transport crude oil or hydrocarbon substances. New pipelines or relocation of existing pipelines shall require the submittal of a revised <u>surveyed</u> 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.
- **G. Machinery Enclosures.** The Operator shall maintain enclosures around machinery with moving parts consisting of a fence, screening, or 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.
- I. Transportation Risk Management and Prevention Plan. Within 180 days of the date of approval of the Comprehensive Drilling Plan and reviewed and/or updated every subsequent two years thereafter, or at such later date as may be approved by the Public Works Director/City Engineer, for good cause shown, Operator shall prepare and submit to the Public Works Director/City Engineer for review and consideration of approval a Transportation Risk Management and Prevention Plan, which shall include, but is not limited to, the following:
 - 1. Identification of transportation routes of 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,

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programs to control drug and alcohol abuse, safety incentive program, satisfactory vehicle inspections and maintenance procedures and emergency notifications;

- Provisions for allowing only carriers that receive a satisfactory rating under the above audit;
- <u>4</u>. Truck loading procedures and checklist for ensuring that the loading rack operator and the truck driver both conduct and document in writing, a visual inspection of the truck before loading and after completing the loading;
- 5. Provisions for requiring transporters to use only carriers with vehicle monitoring system for governing or monitoring vehicle speed;
- Provisions for requiring shippers to use carriers with cellular phones for shipments; and
- 7. Any other additional information required by the Public Works Director/City Engineer.

SECTION 35. WELL CELLARS.

All well cellars shall be constructed 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, redrilling, 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.

SECTION 36. LIGHTING.

Outdoor lighting shall be restricted to only those lights that are required by the CCMC and other applicable federal, state and local regulations for the lighting of building

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- **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, and other Sensitive Developed Areas.
- **B** Lighting Plan. A detailed Lighting Plan shall be prepared for each new permanent structure and submitted to the Community Development Director for review and approval. 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. Concurrently with the submission of the Comprehensive Drilling Plan, 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 in conjunction with the Annual Drilling Plan 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 consideration of 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 38. PUBLIC ROADWAYS AND PRIVATE ROAD CONSTRUCTION

A. Deliveries. In the event deliveries of new drilling, <u>maintenance or other</u> equipment or <u>machinery</u>, or the removal of drilling rigs <u>or other equipment or machinery</u>, would utilize Culver City roadways, all truck routes and oversize vehicle trips must be approved by the Public Works Director/City Engineer prior to <u>delivery of equipment</u>

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or removal of drilling rigs, The Drilling Project traffic shall avoid peak hours and _____ residential roadways to the maximum extent feasible.

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, dust and debris. Prior to construction of any new road, the Operator shall prepare and submit to the Public Works Director/City Engineer for review and consideration of approval a Private Road Construction Plan. The Operator shall thereafter comply with all provisions of the approved Private Road Construction Plan, All new private access roads leading off 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.

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. Identifications signs shall be installed within 60 days of the date of approval of the Community Development Director, for good cause shown.
- **B.** Derricks and Rigs. A sign shall be placed on each derrick and rig that displays the name and number of the well being drilled or operated and the name of the Operator. The letters of the sign shall be at least two inches in height and fully visible from two opposite sides of the derrick and rig.
- **C.** Fire Prevention. The Operator shall post the <u>Oil Field</u>, 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

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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 <u>date of approval of the Comprehensive Drilling Plan</u> 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 40. EQUIPMENT REMOVAL AND MAINTENANCE.

- A. Abandoned and Unused Equipment Removal Plan. For projects within the Oil Field, concurrently with the submission of the Comprehensive Drilling Plan and the submission of each Annual Consolidation and Drilling Plan, 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 date of approval of the Comprehensive Drilling Plan, and, thereafter, other existing facilities and 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 semi-annual compliance report with the Public Works Director/City Engineer. Equipment, machinery 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, 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 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

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Deleted: , Redrilling, Well Abandonment, and Well Pad Restoration entering or leaving the field. The Operator shall have a security guard on duty 24 hours per day. The requirement for a security guard may be satisfied if the Operator can demonstrate, to the satisfaction of the Community Development Director, that a security guard is on duty 24 hours per day for other parts of the Inglewood Oil Field and can adequately provide security for the Oil Field within the jurisdiction of the City. Additional information may be required by the Community Development Director to demonstrate compliance with this Section.

- **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.
- **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.
- D. Painting. Within two years of the <u>date of approval of the Comprehensive Drilling</u> <u>Plan</u>, 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. <u>This requirement may be satisfied if the Operator can demonstrate</u>, to the satisfaction of the Community Development Director, that such Oil Operations-related structures have been painted or otherwise surfaced or textured with a color that meets the requirements for other parts of the Inglewood Oil Field and also meets the intent of this Section. Additional information may be required by the Community Development Director to demonstrate compliance with this Section.

SECTION 42. DIRECTIONAL <u>DRILLING</u> 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 <u>Directional Drilling Surveys</u> 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<u>within 60 days of completion of drilling or redrilling</u>. 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

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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.

SECTION 43. DUPLICATE NOTICES.

The Operator shall file with the Community Development Director <u>copies</u> of all notices required by any State regulatory agency.

SECTION 44. INSPECTION OF PREMISES.

The Operator shall allow authorized City officials, or their designees, reasonable access to the Oil Field for the purpose of making inspections to ensure compliance with all provisions of these Drilling Regulations, the Specific Plan, the approved Conditions Compliance Plan and the adopted MMRP.

SECTION 45. WELL AND PRODUCTION REPORTING.

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 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, potentially or recently 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.

SECTION 46. 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.

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Deleted: ¶ SECTION 43. FILING SURVEYS REQUIREMENT.¶

A. A surface survey, which indicates the location and number of well heads within the Oil Field, and a plat of each sub-surface directional survey, shall be prepared by a land surveyor or civil engineer registered in the State of California and qualified to prepare such surveys. 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. The survey shall be based on the

City's GPS coordinate system and be in AutoCAD format (latest version).¶ C. A digital copy of the survey shall also be submitted.¶

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SECTION <u>47</u>. INJECTION WELLS.

Existing <u>and new</u> 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 <u>48</u>. ABANDONED WELL TESTING.

The Operator shall conduct quarterly testing of abandoned wells for hydrocarbon vapor and any liquid leaks. The first quarterly testing shall be completed within 120 days of the date of approval of the Comprehensive Drilling Plan. 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 reabandoned. 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 or any liquid 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 49. WELL AND WELL PAD ABANDONMENT.

Wells (new or existing) 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.

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- **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 <u>requirements</u> 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, remediated, treated or disposed as may be required by local, regional, State, and Federal regulations or other requirements or directives of any agency exercising jurisdiction over the cleanup, including but not limited to the Culver City Fire Department.
- **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, and within the timeframes specified in the approved Abandonment Plan, to the satisfaction of the Community Development Director.

SECTION <u>50</u>. CITY REQUEST FOR REVIEW OF WELL STATUS.

The Community Development Director may periodically request the review and status of the Operator's wells. 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. 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.

SECTION 51. 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, <u>Site Assessment</u>, and remediation as necessary. The Operator shall begin abandonment of the site no later than 20 days after the <u>Community Development</u> Director's approval of the timeline, and shall provide to the <u>Community Development</u> 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 <u>established by resolution of the City Council, in accordance with Section 9.B</u>, 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 and landowners

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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.

SECTION <u>52</u>. SAFETY INSPECTION, MAINTENANCE, AND QUALITY ASSURANCE PROGRAM (SIMQAP).

Within 180 days of the <u>date of approval of the Comprehensive Drilling Plan</u>, 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. <u>This requirement may be satisfied if the Operator can demonstrate</u>, to the satisfaction of the <u>Community Development Director and Fire Chief that a SIMQAP is being implemented</u> and has been approved for other parts of the Oil Field and can conclusively show that the <u>SIMQAP</u> applies to the Oil Field within the jurisdiction of the City. Additional information may be required by the Community Development Director and Fire Chief to demonstrate compliance with this Section. The following provisions relate to the SIMQAP:

- A. 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 shall respond to any request for additional information within 30 days of receiving such request, unless extended by the City.
- **B. SIMQAP Requirements.** The SIMQAP shall include but not be limited to the following:
 - 1. Inspection of construction techniques;
 - 2. Regular maintenance and safety inspections;
 - 3. Periodic safety audits;
 - 4. Corrosion monitoring and leak detection; and
 - **5.** Inspections of all trucks carrying hazardous and/or flammable material prior to loading.
- **C.** Worker Notification. The Operator shall ensure that all personnel comply with all provisions of the currently approved SIMQAP.
- D. Inspections. The SIMQAP shall provide for <u>participation</u> of City staff and the City's On-Site Monitor<u>, at the discretion of the City</u>, in all inspections required by this section.

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Deleted: 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

Deleted: involvement

SECTION <u>53</u>. COMPLIANCE AND SAFETY AUDITS.

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 Community Development Director monthly updates on the corrective action plan until such time as all corrective actions have been completed.

SECTION <u>54</u>. COMPLAINTS.

All complaints related to Oil Operations within the Oil Field 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 <u>subject matter of the</u> complaint at issue. For example, all air quality and odor complaints shall be reported to the Community Development Director and Fire Chief and the agencies at the opening of the next business day.

SECTION <u>55</u>. COMMUNITY OUTREACH.

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

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SECTION 56. CONFLICT OF PROVISIONS.

In the event of any conflict between the Specific Plan, including these Drilling Regulations, and any other provisions of the CCMC, these Drilling Regulations and the Specific Plan shall prevail. **Deleted:** In the event of any conflict between this Ordinance and any other provisions of the CCMC, this Ordinance shall prevail.¶

SECTION 57. SCHEDULE FOR ABANDONMENT OF WELLS OR OIL FIELD.

(NOTE: The EIR for the Proposed Inglewood Oil Field Specific Plan Project ("Specific Plan EIR") will evaluate the potential environmental impacts of limiting the number of new wells to the required abandonment of a reciprocal number of existing older wells. All well plugging or abandonment procedures would be completed in compliance with DOGGR regulations and site restoration would be in compliance with Sections 31 (Consolidation and Annual Drilling, Redrilling, Well Abandonment, and Well Pad Restoration), 50 (Well and Well Pad Abandonment) and 52 (Oil Field Abandonment Procedures) of these Drilling Regulations. In taking action on the Specific Plan, the City Council will consider the available information, including the Specific Plan EIR, in making a determination as to whether and upon what terms the adopted Specific Plan (which includes these Drilling Regulations) would require: 1) an expiration date or schedule for the abandonment of any potential new wells established in compliance with these Drilling Regulations; 2) a requirement to abandon any existing non-conforming wells as new wells are added; 3) a schedule and/or parameters for abandonment of any existing non-conforming wells independent of new well activity; and/or 4) the expiration and abandonment, clean-up and restoration overall within the Oil Field of all oil-related activities.)

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- , 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 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 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.