MESSAGE TO THE BALDWIN HILLS COMMUNITY ADVISORY PANEL AND THE COMMUNITY FROM THE BALDWIN HILLS STEERING COMMITTEE

REGARDING THE COMMUNITY HEALTH ASSESSMENT AND ANALYSIS OF CANCER AND MORTALITY RATES

FEBRUARY 2021

The Los Angeles County Department of Public Health ("DPH") is preparing the next Community Health Assessment and Environmental Justice Study ("Assessment"), as required per Section 5 of the Settlement Agreement and Mutual Release ("Settlement Agreement") related to the Baldwin Hills Community Standards District ("CSD"). DPH sought input from the Baldwin Hills Community Advisory Panel ("CAP") and the CAP's Health Working Group ("HWG"), who in turn designated several individuals to participate on the Baldwin Hills Steering Committee ("Steering Committee") to coordinate with DPH and three Public Health Experts on the scope of this Assessment.

The Steering Committee process culminated in release of the "Baldwin Hills Steering Committee Planning and Facilitation Summary Report" ("Summary Report"), which was compiled through DPH and its hired consultant and released in February 2021. The Summary Report documents the planning and facilitation process that took place over a series of five meetings throughout an approximate six-month period.

In part, the Steering Committee was tasked with providing guidance related to Section 5 of the Settlement Agreement, including "...but not be limited to, an analysis of cancer rates, mortality rates, birth outcomes and a survey of other pertinent health indicators..."

- ❖ Based on the Public Health Experts' opinions and the identified obstacles (see table below), this Assessment will not include analysis of cancer registry data or mortality data. The Steering Committee made every effort to prioritize analysis of cancer rates, mortality rates and birth outcomes; however based on extensive discussion of the publicly-available data and the scientific limitations of viable approaches, the Steering Committee ultimately voted unanimously to recommend that this Assessment: (1) not include analysis of cancer registry data and mortality rates; (2) seek to acquire household-level birth outcome data for analysis; and (3) conduct a household-level survey with biometric measure(s) to be determined (e.g. blood pressure, lung function, etc.). This decision process is more thoroughly explained in the Meeting #5, January 14, 2020, Minutes found in Appendix D of the Summary Report (see Attachment A).
- The Steering Committee's decision, which may seem contradictory to criteria set forth under the Settlement Agreement and community expectations, came only following very thorough consideration of the methodology, the reasonableness of collecting meaningful data and the availability of possible options to prioritize and address cancer rates, mortality rates and specific birth data.
- Considerations affecting the Steering Committee's recommendation are summarized in Table 1 on the next page.

With the above clarification, the Steering Committee respectfully supports DPH's release of the Summary Report.

Erica Blyther, City of Los Angeles, Department of Public Works, Office of Petroleum and Natural Gas Administration and Safety

Paul Ferrazzi, Citizens Coalition for a Safe Community

Liz Gosnell, Cone Fee Trust

Charles McCaw, United Homeowners Association II (UHA II)

Melanie Doran Traxler, City of Culver City

(OVER)

Table 1 – Summary of Steering Committee's Recommendation Regarding Cancer and Mortality Rates and Birth Outcomes

| Settlement Agreement Guidance (from Section 5) | Obstacles to Comprehensive Cancer and Mortality Assessment Discussed by Steering Committee with Input from the Public Health Experts | Steering Committee's Recommendation for the Community Health Assessment and Environmental Justice Study | Mitigating Considerations Factored into the Decision Process Regarding Analysis of Cancer and Mortality Rates |
|--|---|---|---|
| "The Community Health Assessment shall include, but not be limited to, an analysis of cancer rates, mortality rates, birth outcomes and a survey of other pertinent health indicators" | Based on the size of the population to be studied, the number of cancer cases that could be related to exposure to oil field operations (based on exposure to substances specially associated with oil field operations) will not be sufficient to determine whether the number is higher than would be expected. Cancer and mortality outcome data are maintained by the State and not available to the County at the household level at this time. It is not possible to attribute causation of known cancer cases to the oil field because the County would not have data on other contributing risk factors (e.g., smoking, work habits, length of time at residence, eating habits, family history, physical activity, etc.). Limitations to the schedule, budget and logistical factors assigned to this Assessment. | Based on the Public Health Experts' opinions and the identified obstacles, this Assessment will not include analysis of cancer registry data or mortality data. | Birth outcome data will be sought at the individual household level as part of this Assessment. This Assessment will include a household survey that can gather information on acute or short-term outcomes (e.g., nosebleeds, asthma attacks, etc.), risk factors for various health outcomes, and other relevant data, from residents in the different neighborhoods surrounding the oil field. This information is not available through broader-based database registries. The pending California Air Resources Board, Study of Neighborhood Air near Petroleum Sources ("SNAPS"), will analyze for cancer risk through its air quality monitoring and analysis of the Baldwin Hills communities scheduled for study during 2021-22 and a subsequent health risk assessment based on captured data. Guidance for this Assessment does not preclude considering cancer rates in future studies. |

Attendees:

- Christine De Rosa, LA County DPH
- Caitlyn Suruki, Intrinsik**
- Carrie Tayour, LA County DPH
- Paul Ferrazzi (by phone), Citizens Coalition for Safe Community
- Melanie Traxler, City of Culver City
- Charles McCaw, UHA
- Jill Johnston, University of Southern California

- Erica Blyther, City of LA
- Debbie Stevens, Environmental Audit, Inc.
- Seth Shonkoff, PSE Healthy Energy
- Liz Gosnell, Cone Family Trust
- Jo Kay Ghosh (by phone), SCAQMD
- Kathleen Kozawa (by phone), CARB
- Timothy Stapleton, LA County DRP
- Jennifer Trotter, Burns & McDonnell**
- Sean Fahmian, Burns & McDonnell **

Meeting Notes

Safety Moment – In case of emergency, walk calmly downstairs and meet in the back of the parking lot while safety of building is assessed.

Meeting Recap

- Public health experts laid out limitations, strengths and processes of various study designs.
 - Looking at exposure metrics, distance is important, but also incorporate meteorological and CARB data in it as well. (Jill)
 - Density of oil and gas development and the infrastructure associated with it should also be included.
 (Seth)
 - We can get more detailed data from the operator if we need it. They are willing to work with this group. (Liz)

Environmental Racism – Presented by Erica Blyther

See presentation slides for details of presentation.

- Discussion:
 - o Environmental Racism Incorporated into Study Design
 - How do we incorporate Environmental Racism into our study?
 - The Settlement Agreement states that it is required that environmental justice is included in the report. The last study didn't address Environmental Racism. Important to go above and beyond the previous study
 - Important to include how the steering committee chosen and process to develop plan.
 - Looking at the definition of Environmental Justice, we won't achieve Environmental
 Justice until everyone has a seat at the table. Need to have data incorporated that
 represents impacted lower socio-economic areas (over inclusive) in this study.
 - Include outreach component to study, such as community workshops to educate the public in plain language about study including environmental justice component.
 - Can consider how social stressors and historical racism could affect health outcomes.
 There are ways that we can look at these health outcomes with respect to races.
 - Potential to do a separate study as a means of secondary analysis focused on environmental justice/racism.
 - o EnviroScreen important to understand that EnviroScreen measures cumulative impacts (not

^{*}Interested agency representative, not a Steering Committee Member

^{**}Facilitating consultant

relative impacts) and does not include oil production in evaluation.

- Health Data When you look at health data, you need to incorporate race because different races are affected differently when it comes to health. How are we going to incorporate environmental justice when you have different health outcomes? (Debbie)
- o Additional Data CARB will put out data in order to develop community specific plans.

Broad Study Design - Scenarios reviewed Secondary Data Analysis:

- Birth Outcomes
 - o Limitations Reviewed
 - Lack of Community Engagement
 - Imperfect information on emissions (i.e. when/how emissions contact pregnant women, what is related to other emissions including mobile sources)
 - Birth data release is delayed years
 - East side community may have a higher proportion of residents over 60 years compared to other neighboring communities
 - Assumption that mother lives at same location over the course of the 9 months of pregnancy.
 Birth addresses are recorded at time of birth without consideration of living history.
 - o Opportunities Reviewed
 - Only secondary data source that is available at household level data
 - Lots literature available around birth outcomes and fracking
 - Strongest body of data that shows a link between living close to an oil field is birth studies.
 - 20 years of data available
 - Exposure time known (assumed) to be 9 months
 - Low, medium, high exposure
 - Doctor reported and at the home level
 - Multiple data points
 - Consider scoping birth outcome study to the Los Angeles Oil Field Basin to get larger sample size.
 - Other oil fields in Los Angeles are not regulated to the same level as the Inglewood Oil Field and not comparable in size.
 - Recommendations
 - Best exposure metric will be a combination of emissions data and oil field operations.
 - Do not rely on oil well productivity only (production level does not always equate to higher emissions)
 - Discussion on Emissions:
 - Possible to factor out the diesel particulate matter from the City of Los Angeles oil field?
 - A consistent baseline to measure from is needed. Concerned that operators are producing less in order to calculate some of the changes we might expect to see from study.
 - There are 188 idle wells that could be emitting.
 - Consider studying methane levels as methane carries gas that will carry emissions.
 - If operations data is available, would it be possible to tie the CARB data to the activities that are occurring in the field that might warrant more pollution. Does not tie data to health outcomes, rather allows understanding of what activities are emitting more pollution.
 - CARB is not measuring emissions; they are measuring environmental air concentrations. It is possible to go back and check to see if there is correlation to the emission rates from the oil field.
 - SB4 data can be useful to show when hydrochloric acid or hydrofluoric acid used on wells.

- Cancer and Mortality Rates
 - o Limitations Reviewed
 - Small sample size. Sample size is not large enough to develop a conclusion.
 - No length of residence info
 - Data not provided at household level
 - This is not a study design that is calibrated to show that something is there. The problem with this is that if it is included it can be used to say that there are no health outcomes from being near the oil field operations.
 - Opportunities Reviewed
 - Potential marginally better data
 - Strong community emotional attachment to these issues.
 - o Recommendations
 - Identify how to explain to the community why this data is not able to identify the health impacts of living near an oil field
 - o Discussion on Cancer:
 - LA County as a whole has cancer and mortality issues. The community will not listen if the
 data says that it isn't causing cancer/mortality because they see cancer happening to
 themselves and their neighbors.
 - The report needs to address the challenges with Cancer/Mortality rate analysis to ensure that the community has an explanation.
 - Can the community's concern be addressed during data collection method?

VOTING ITEM (Unanimous, Yes): Section 5 of the Settlement Agreement requires a Cancer and Mortality Rate Analysis. In concurrence with the Public Health Expert's opinions we recommend that the DPH Community Health Assessment does not prioritize analyzing Cancer Registry Data and Mortality Rates (existing secondary data) considering the inability to identify causation/correlation due to lack of statistical power. Specifically, the number of people around this oil field is not large enough to provide a sample size sufficient to detect statistically significant changes in rare health outcomes such as cancers. We understand that cancer outcomes are important to the community and recognize that CARB SNAPS will analyze for cancer risk.

- Yes: Paul, Erica, Melanie, Charles, Liz (5)
- No: (0)
- Abstain: (0)

NOTE: Public Health Experts are unanimous in the above recommendation voted on by the committee.

VOTING ITEM (Unanimous, Yes): In concurrence with the Public Health Expert's opinions we recommend prioritizing individual household birth outcome data as part of any potential secondary data analysis.

- Yes: Paul, Erica, Melanie, Charles, Liz (5)
- No: (0)
- Abstain: (0)

NOTE: Public Health Experts are unanimous in the above recommendation voted on by the committee.

Collect Individual-Level Data from Residents

• Bio-metric measures discussion

| Bio Metric Measure | Purpose | Opportunities | Limitations |
|-----------------------|---|--|--|
| Blood Pressure | | Can easily been done at the same time as other data collection activities | Difficult to understand potential factors (diet, family history, exercise, existing medications) |
| Lung Function | Cardiovascular responses | Wide age range acceptable Large data set because conduct several times on each test Comparison studies available | Trained people required to administer tests |
| Blood Draw | Inflammatory response (can trigger respiratory and cardiovascular responses) | Provide detailed health information Potential to better understand participants' other health factors | Invasive process require higher level of Institutional Review Board (IRB) approval Potentially less community members interested in participating Require lab (increase cost of study design) |
| Urine Analysis | VOCsOxidativeStressMarkers | Studies (limited number) conducted show more oxidative stress markers in people living near refineries and oil fields (Jill) | VOC can go in and out of your system very quickly (8 hrs) Require lab (increase cost of study design) Benzene is not necessarily a marker of oil field activity In LA, people exposed to emissions gas stoves/heaters |

Discussion

- o Part of this study should allow for room for creativity from the community members/respondents.
- o If we are not going to be studying cancer and mortality rates from secondary data, then maybe we should beef up the biometric data collections efforts from the community.
- Asthma can be caused by many factors, not necessarily connected to oil field operations
- Regarding the design, what would be the outreach process as far as getting to the secondary data?
 The easiest thing to use is people who are on the mailing list within the vicinity of the oil field.
- Bio-metrics and self-reporting:
 - Self Reporting: People take measurements every day for a certain period of time. Time intensive, requires a lot of work from participants. Hard studies to do.
 - What is a decent sample size? In the North Carolina study (Jill) there were 100 people.

VOTING ITEM (Majority, Option 3): Each committee member was provided with 2 stickers. Committee members were instructed that they could place both stickers on the same poster or on multiple posters as a means to indicate their prefer broad study design(s). Note: Public Health Experts did not participate in vote.

- 1. Conduct secondary data analysis only: 3
- 2. Collect individual level data from residents only: (0)
- 3. Conduct secondary data analysis AND collect individual level data from residents: 6