

AB 617 Community Air Protection Program Steering Committee Meeting Notes

06/25/2019

6:00 pm- 8:00 pm

Perkins Elementary School (1770 Main Street, San Diego, CA 92113)

Opening Remarks

Bill Brick- Chief of Monitoring and Technical Services

Approval of 5/21/19 Meeting Notes and tonight's agenda

[Meeting notes were approved](#)

Announce new member: Elisa Arias (SANDAG) who is replacing Tina Casgar.

Public Questions/Comments

Sandy-recommendations for July meeting. 1)finalize the charter (since still in draft) 2) for meeting to have infographics of deadline so it's easy for the public to understand 3) conversation to have meetings in other locations

APCD Update on Vehicle License Reader Project

- Several crews have been out reading plates for the last few weeks. Photos can be taken but can't use the license plate reader character recognition program because the APCD Board must take public comments on it first. Will likely be the first week of August. The License Reader Program will give vehicle model, year, and engine information (no personal information).

Aclima Update

Presenters:

David Hertzl, CEO of Aclima

Melissa Lunden

Joe Hicken

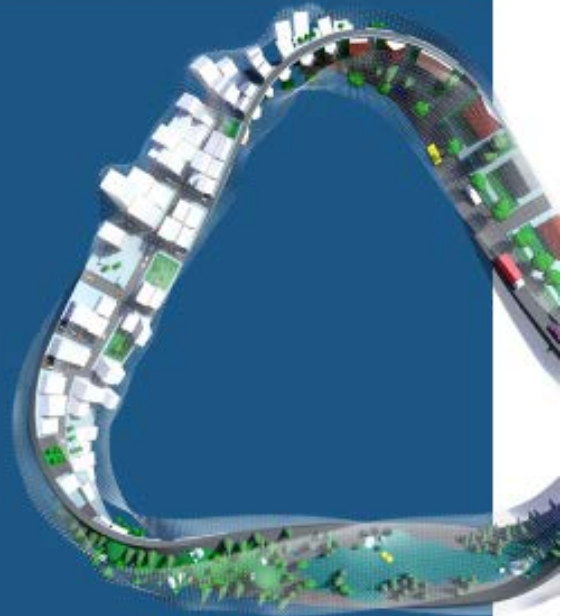
Brian Crisp

Joshua Richey



Environmental intelligence for people and the planet

San Diego Hyper-Local Air Quality
March - June 2019



Agenda

- About Aclima
- Overview of first mapping campaign in San Diego
- Review of Aclima's Findings
- Upcoming tools for community engagement
- Q&A

About Aclima

A New Approach
Block-by-block air
quality monitoring



Aclima Team Present Today



Davida Herzl
CEO
Co-Founder



Josh Carr
UX
15+ years design
experience



Joe Hicken
Strategy & BD
12+ years city and
federal gov't



Brian Crisp
Strategy
Founding team



Melissa Lunden
Science
Caltech, Sandia, LBNL,
30 years career



Joshua Richey
Senior Product
Designer
15+ years design
experience



@2024 ACLIMA, INC.

CONFIDENTIAL

Context

Regulatory Standards

What does the data mean to me?

What is considered “unhealthy” or “healthy”?

© 2019 AQLIMA, INC.

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards ¹		National Standards ¹		
		Concentration ²	Method ³	Primary ^{1,4}	Secondary ^{1,4}	Method ¹
Ozone (O ₃) ⁵	1 Hour	0.16 ppm (160 µg/m ³)	Ultaviolet Photometry	—	Same as Primary Standard	Ultaviolet Photometry
	8 Hour	0.075 ppm (750 µg/m ³)	—	0.075 ppm (750 µg/m ³)	—	—
Respirable Particulate Matter (PM ₁₀) ⁶	24 Hour	35 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Initial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	35 µg/m ³	—	—	—	—
Fine Particulate Matter (PM _{2.5}) ⁶	24 Hour	—	—	75 µg/m ³	Same as Primary Standard	Initial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	120 µg/m ³	15 µg/m ³	—
Carbon Monoxide (CO)	1 Hour	3.0 ppm (24 mg/m ³)	Gas Chromatograph Infrared Photometry (GCIR)	3.0 ppm (24 mg/m ³)	—	Gas Chromatograph Infrared Photometry (GCIR)
	8 Hour	9.0 ppm (72 mg/m ³)	—	9.0 ppm (72 mg/m ³)	—	—
	8 Hour (Lake Tahoe)	6.0 ppm (48 mg/m ³)	—	—	—	—
Nitrogen Dioxide (NO ₂) ⁷	1 Hour	0.10 ppm (330 µg/m ³)	Gas Phase Chemoluminescence	100 ppb (33 µg/m ³)	—	Gas Phase Chemoluminescence
	Annual Arithmetic Mean	0.03 ppm (33 µg/m ³)	—	0.04 ppm (40 µg/m ³)	Same as Primary Standard	—
Sulfur Dioxide (SO ₂) ⁸	1 Hour	0.20 ppm (320 µg/m ³)	—	75 ppb (10 µg/m ³)	—	—
	3 Hour	—	—	—	0.5 ppm (800 µg/m ³)	Ultaviolet Fluorescence Spectrophotometry (Preliminary Method)
	24 Hour	0.04 ppm (70 µg/m ³)	Ultaviolet Fluorescence	0.10 ppm (140 µg/m ³)	—	—
Lead ^{9,10}	Annual Arithmetic Mean	—	—	0.000 ppm (for carbon mass) ¹¹	—	—
	30 Day Average	1.5 µg/m ³	—	—	—	—
	Calendar Quarter	—	Atomic Absorption	1.5 µg/m ³ (for carbon mass) ¹¹	Same as Primary Standard	High Volume Sampler and Atomic Absorption
Visibility Reducing Particles ⁴	8 Hour	See footnote 14	See Attenuation and Transmittance through Filter Tape	—	—	—
	24 Hour	—	—	—	—	—
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography	—	—	—
Hydrogen Sulfide	1 Hour	0.01 ppm (42 µg/m ³)	Ultaviolet Fluorescence	—	—	—
Vinyl Chloride ¹¹	24 Hour	0.01 ppm (20 µg/m ³)	Gas Chromatography	—	—	—

Standards were defined around traditional technology

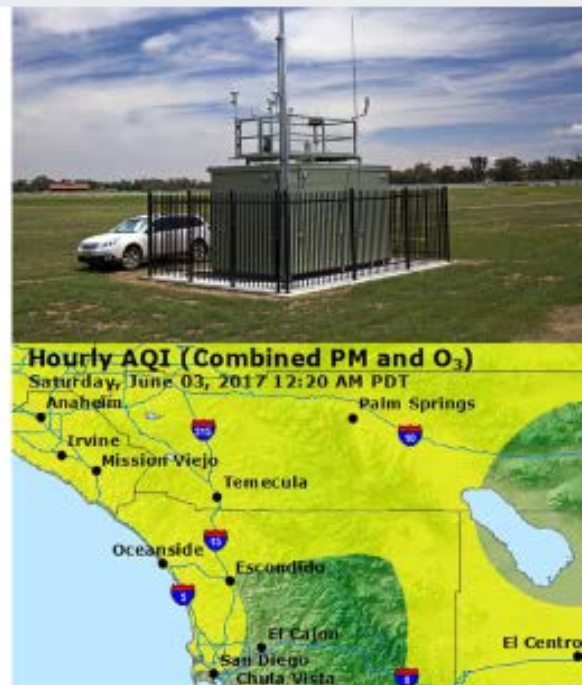
Block-by-block measurement wasn't possible when regulatory standards were defined

Standards track to regional averages

Attainment is based on regional averages

Regional averages don't capture hyperlocal experience

© 2019 AQLIMA, INC.



The Opportunity

Define a new
future together

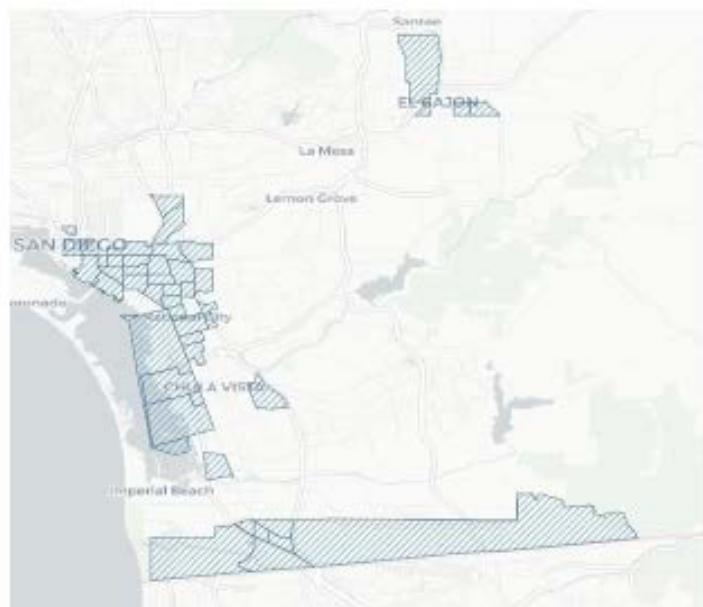


San Diego AB-617 Mapping Campaign

Operational Summary

Mobile data collection took place from March 1 to June 4, 2019

32,000 Miles
80 million data points



© IMRACUNA INC. CONFIDENTIAL

Local Jobs

Five local jobs recruited directly from the community

Local drivers know the area and conditions best



© IMRACUNA INC. CONFIDENTIAL

Key pollutants: PM_{2.5}

Source: Combustion, photochemistry

Effect: Respiratory damage; asthma, increased mortality

Regulatory Standard:

24 hour = 35 $\mu\text{g}/\text{m}^3$, Annual = 12 $\mu\text{g}/\text{m}^3$

© 2019 ACLIMA, INC.



CONFIDENTIAL

Key pollutants: Black Carbon

Fraction of PM_{2.5} that is soot

Emitted by diesel engines and wood fires

As "Diesel particulate matter", classified as a carcinogen

No regulatory standard

© 2019 ACLIMA, INC.



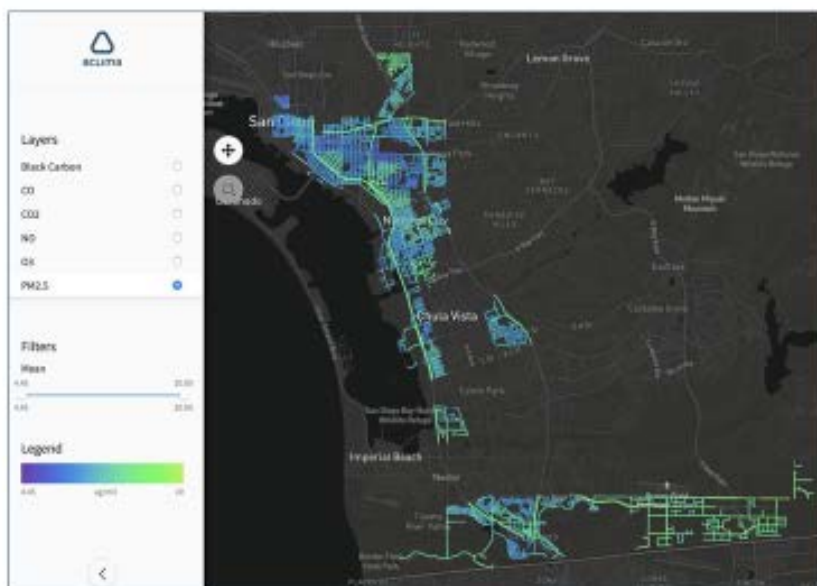
CONFIDENTIAL

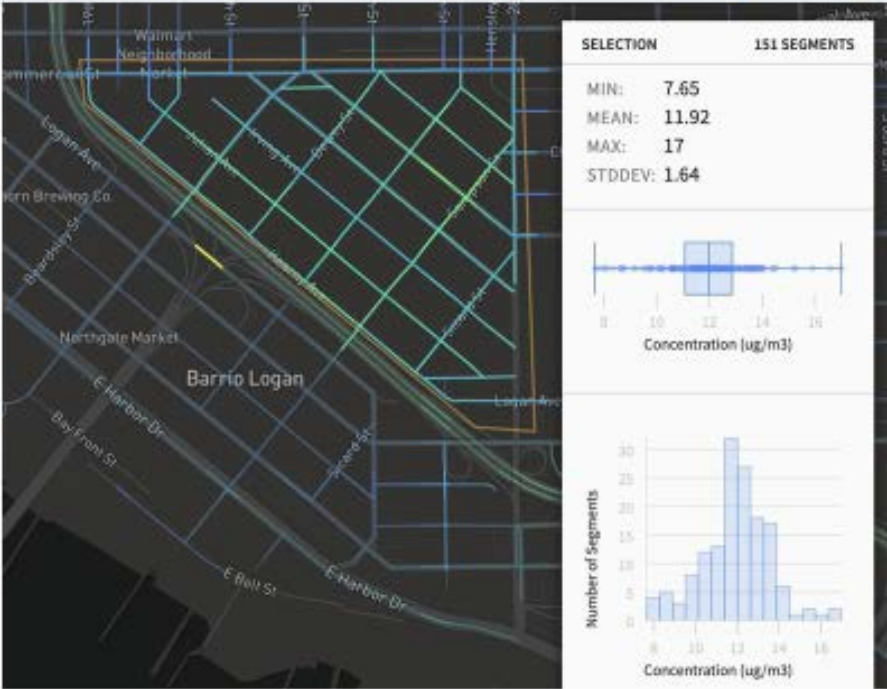
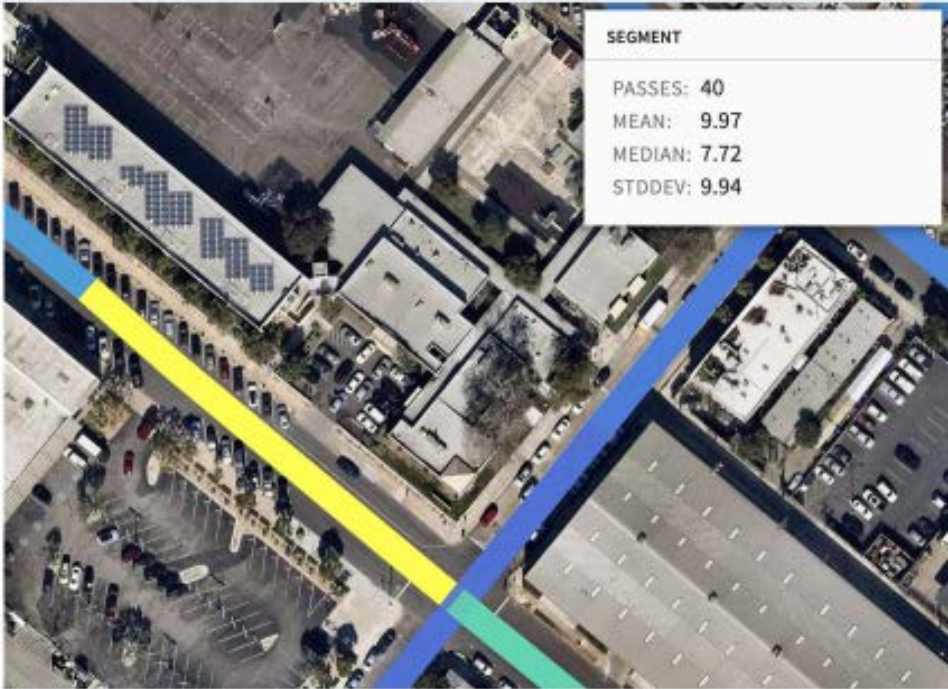
Terms to know

Block-by-block = Your Lived Experience

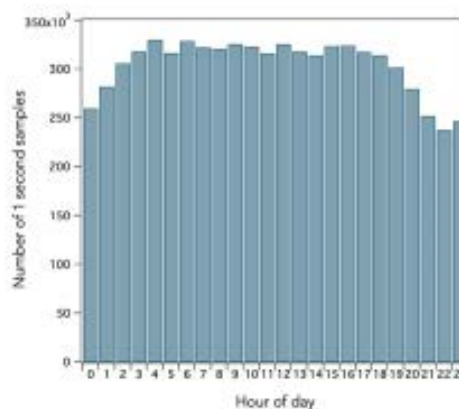
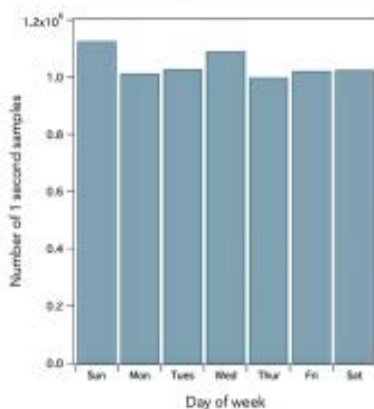
Segment = average city block with more than 20 passes from an Aclima car

Demonstration



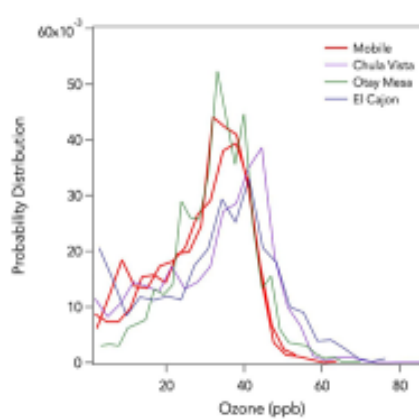
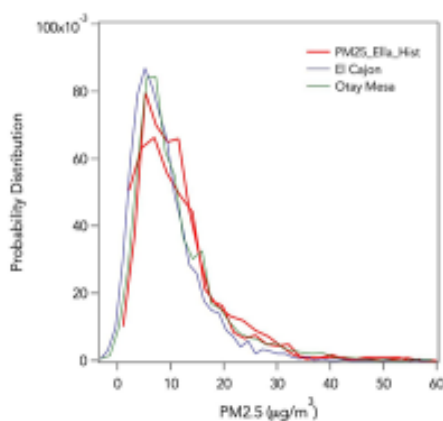


Mapping well distributed by day of week and hour of day



© 2019 ACLIMA, INC. CONFIDENTIAL

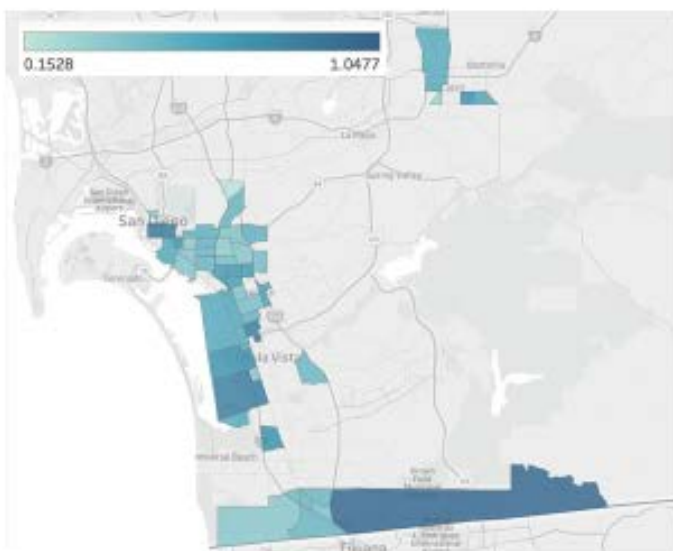
Excellent agreement between hourly averaged mobile and regulatory data



© 2019 ACLIMA, INC.

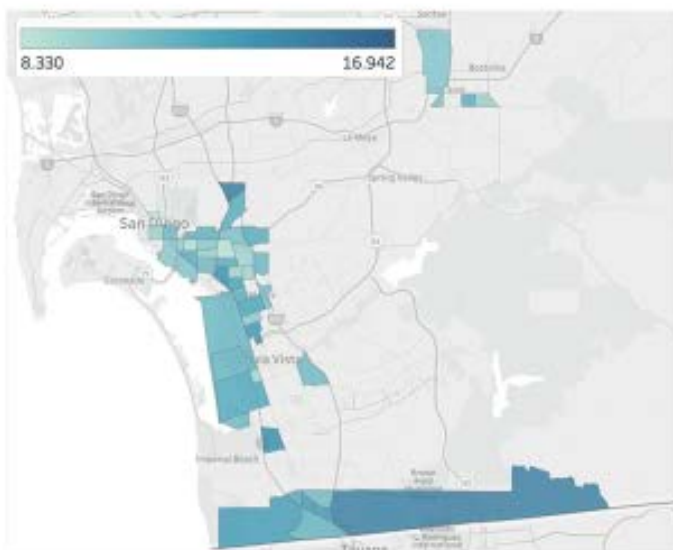
Black Carbon by census tract

© AIRACUNA, INC. CONFIDENTIAL



PM2.5 by census tract

© AIRACUNA, INC. CONFIDENTIAL



Tools for Community Engagement

Aclima Insights for Communities

Complex science and big data made accessible to the general public through an intuitive, freemium app designed to expand awareness and action to improve air quality.

© 2018 ACLIMA, INC.



CONFIDENTIAL

Thank you.

Comment: We actually don't know what impact those short-term spikes have.

Answer: That is true.

Question: Does the time of day factor into the data?

Answer: Mapping is well-distributed by day of week and hour of day

Question: Did you remove any outliers?

Answer: No, we don't unless we have reason to believe that the data was not valid such as problem with sensor or measurement.

Question: Can you please show an example from Barrio Logan?

Answer: Yes

Question: Can you do the southside of Barrio Logan?

Answer: Yes

Question: Where do these determinations come from if there is no standard?

Answer: That's the USEPA federal standard.

Question: When do you anticipate it (the mobile app) to be ready?

Answer: Early July or Early August with the District reviewing it.

Question: Have they driven the 67 segments enough times?

Answer: Yes, that means that there at 60 segments with at least 20 passes. The science has shown that the 20 passes is a representative sample.

Question: During the time of monitoring was there a thermal inversion?

Answer: If there was then yes, we captured it.

Question: What portion of PM 2.5 is in our community?

Answer: Depends on the section that is being block-by-block monitored.

Question: In terms of STDDEV 9.94 is that consistent?

Answer: Distribution is logged normal.

Question: Any thermal inversion captured?

Answer: Yes

*Noted there will be a small breakout session after presentations are completed

Compliance Update

William Jacques, Program Coordinator

Brief Overview of the role of the Compliance Division

- Inspect, investigate respond to complaints, and provide training and educate. The District conducts investigations to determine compliance with state, district, and federal regulations. Rules and regulations give the District authority. When a violation is documented, it is required by state law to issue a Notice of Violation. Sometimes these violations are generated from complaints. Anyone can submit an air quality complaint. The District provides training to discuss regulatory requirements in an effort to be proactive than reactive. This prevents violations in order to protect public health.

Introductions

- Stephen Amberg, Supervising Air Quality Inspector-AB617 implementation for Compliance
- Brittany Baugher, Business Assistance Specialist

Compliance update since last meeting

- Inspections area tracked by zip codes, not census tracts. This reporting is for zip codes 92113, 91950, 92102. The Compliance Division conducted 50 stationary source inspections, 4 asbestos removal inspections, completed 5 air quality complaint investigations: (3 idling vehicles, one smoke-bases and one odor-based complaint), conducted 11 mobile source inspections, and issued 1 citation for off-road vehicle (administrative). The District also issued 5 NOVs; 2 asbestos administrative violations and 1 violation to a gas station for not properly operating their vapor recovery system. Still exploring posting violations on website.

Question: Can you provide us the data on the sandblasting violation?

Answer: Once violation is assessed and closed; it then becomes public information.

During the last meeting we discussed posting inspection numbers and compliance actions on our website. We are still exploring this idea and determining the best way to publish the data.

Regarding the District's AB-617 page, we welcome any comments. We want to make sure the page is user friendly.

Engineering Update

Jim Swaney, Chief of Engineering

Updates of emission inventory issues

- Air Resource Board released drafts of changed inventory regulation earlier this year that would expand emissions inventory to include nearly every permitted source in the state. Comments were due in May. CARB will likely propose revisions in August/September timeframe. Deadlines for companies to report have been extended with the first sources for their 2019 emissions reported next year. First of smaller sources would probably be in 2022 and 2023 emissions. Need to ensure enough time to do outreach to all these facilities. We will be inventorying all Portside permitted sources and will conduct outreach to get letters out to all of the sources for emissions inventory. We don't ask facilities to calculate emission; just what they have been doing (District calculates). Under the Air Toxics "Hot Spots" program, we have finalized the health risk assessments for some Portside sources. Continue working on letters that need to be notified because of what their emissions are. Once we have the emissions inventory from Portside sources, there will be a proactive health risk assessment. For permitting actions, the larger projects trigger 30-day public notice (San Diego Union Tribune or website).

Question: As you get the updated emissions inventories, can you please bring that information back here?

Answer: Yes

Question: I work across the street from the shipyard—what's the difference from any data they submit monthly versus what you're attempting to do now?

Answer: The District asks for data once a year and looks at previous year to evaluate what the risk would be. If you're keeping monthly records, then its already probably better than trying to evaluate at the end of the year

Incentives Update

Kathy Keehan, Supervising Air Resources Specialist

- APCD has successfully worked with folks to come into contract: 4 in the Portside area and TC construction in El Cajon area. There are \$2.7 million dollars out on contract. Next solicitation will open in July with \$19 million in AB617 incentive funding available so think of projects and encourage people to apply. The District has been talking with the Port and visited San Ysidro and Barrio Logan planning groups and reached out to San Diego Unified and National City School Districts for upcoming projects. There is money to spend and need to ensure good projects occur.

Monitoring Update

Bill Brick- Chief of Monitoring and Technical Services

- Sherman Elementary School deck is built. 10th Avenue Marine Terminal is almost complete. Power is installed, with just a few additional items to finalize. Caltrans/Chicano Park is still moving forward. Burbank School have MOU for Bob to sign for Logan Heights area. Navy lot moving forward but might take a year. Agencies working with one another can take some time. National City Train Depot (Mile of Cars area) is signed but need electrical power. Kimball Elementary School couldn't make commitment. We are now working with Sweetwater School District for their high school. There will be new staff coming onboard.

Comment: We talked about potential sites in Old Town National City community and hoping to find a site there. Community residents suggested Paradise Creek Apartments.

Answer: District is not done looking at locations. 4 new black carbon analyzers. First one will be out at Sherman Elementary School, then 10th Avenue Marine Terminal.

Question: Is the Navy base going to be on the dry side?

Answer: Yes

Budget Update

Rob Reider, Deputy Director

- \$3.25 million is coming from CARB to do all this work. It has been approved. 2/3 for equipment and supplies and 1/3 staff time to do this work. To date we've spent a few hundred thousand dollars. Expecting additional funding at least through next year. State budget just approved funding to operate monitoring equipment and projects as well. \$3.25 million is just for evaluation and \$19 million for projects to reduce emission. Expecting same amount next year.

AB 617 Steering Committee Meeting Agenda 6/25/2019 (Page 2 of 2)

AB 617 Budget (June 7, 2019)

Summary A9400: Air Quality Community AB 617	2018-19 PB Adj Budget	a breakdown of \$2.5M
52182 - Vehicle Fuel (ISF)	15,100	
52330 - Office Expense	-	
52370 - Professional & Specialized Services	331,463	
52390 - Laboratory Services	708,125	
52530 - Rents & Leases of Structures	30,000	
52737 - Major Maintenance - ISF	19,500	
EE520 - Services & Supplies	1,104,188	849,375
54970 - Lab / Med / Inst. Furniture & Instruments	-	
54976 - Special Departmental Equipment	840,000	
54982 - Transportation Equipment	50,000	
EE548 - Capital Assets Equipment	890,000	684,615
56311 - Operating Transfers Out	1,255,812	
EE563 - Operating Transfers Out	1,255,812	966,009
TOTEXP - Total Expense	3,250,000	2,500,000

Question: How much time will the District give semi-trucks to lower their emissions.

Answer: We really need to be assertive with all this and utilize money in important way. San Diego is one of the few air districts in the state to go beyond inspecting facilities but now also inspect on-road and off-road trucks, so we are expanding that program. We have 6 or 7 inspectors on the road inspecting diesel equipment. 20 or 30% of the time we find violations. We are doing these inspections every day. Most air districts focus only on facilities.

Supplemental Answer from Bob Kard (APCD Director): We have been doing a truck inspection program for several years now using Department of Motor Vehicle money. The idea is to grow this program, but we can't use money to help someone to get into compliance. We can't use grant money to get into compliance, we can only use it to create emissions reductions early in advance of regulations. Please note that CARB has lower penalties than APCD.

Closing Remarks

Update on feedback forms

Next scheduled meeting is 7/23/19 at Perkins Elementary School Cafeteria (1770 Main Street, San Diego, 92113 from 6:00 pm – 8:00 pm