Devil's Gate Reservoir Restoration Project

7:40 PM – 8:00 PM Devil's Gate Reservoir Restoration Project Update – Brittany Barker & Steve Burger LA County Public Works

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LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

Presented by: Steve Burger and Brittany Barker

Construction

Phase 1 – Habitat Restoration

(on-going)

Phase 2 – Vegetation Removal

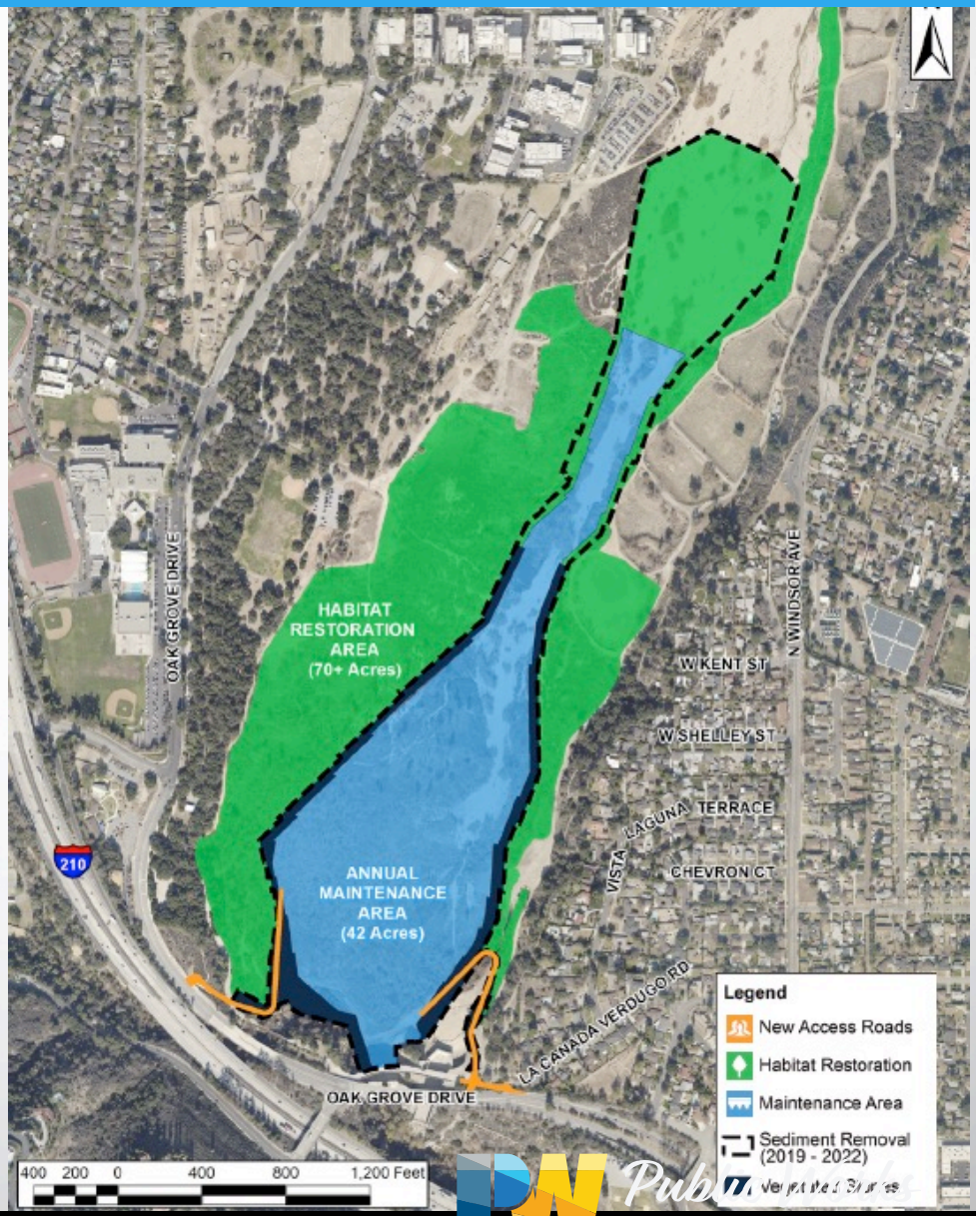
(completed)

Access Road Construction

(completed)

Phase 3 – Sediment Removal

Started May 21, 2019 (on-going)



Phase 3: Sediment Removal

- April - November (2019 – 2022)
- Sediment haul trucks will meet model year 2010 emission standards
- Approximately 95 trucks will be used to make a maximum of 425 roundtrip truck trips daily
- Monday - Friday, 7 am to 5 pm with hauling ending at 3:30 pm
- No work on weekends, holidays, or during major Rose Bowl events
- Prior to final season of sediment removal, remaining 14 acres of vegetation will be removed at north end of reservoir

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Phase 3: Sediment Removal

Sediment Built up Behind the Dam

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Phase 3: Trail Closures

- Trails temporarily closed during weekdays, from 7 am to 5 pm, daily.
- Trails open on the weekends.

Phase 3: Sediment Removal

Haul Trucks Being Loaded

Phase 3: Sediment Removal

Haul Trucks Being Loaded

Phase 3: Sediment Removal

Watering Sediment for Dust Control

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Phase 3: Sediment Removal

Checking 'MIL' Status

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Phase 3: Sediment Removal

Excess Dirt Removed from Side of Trucks

Phase 3: Sediment Removal

Tracking Control Devices at Exit

Phase 3: Sediment Removal

Traffic Control on Oak Grove Drive

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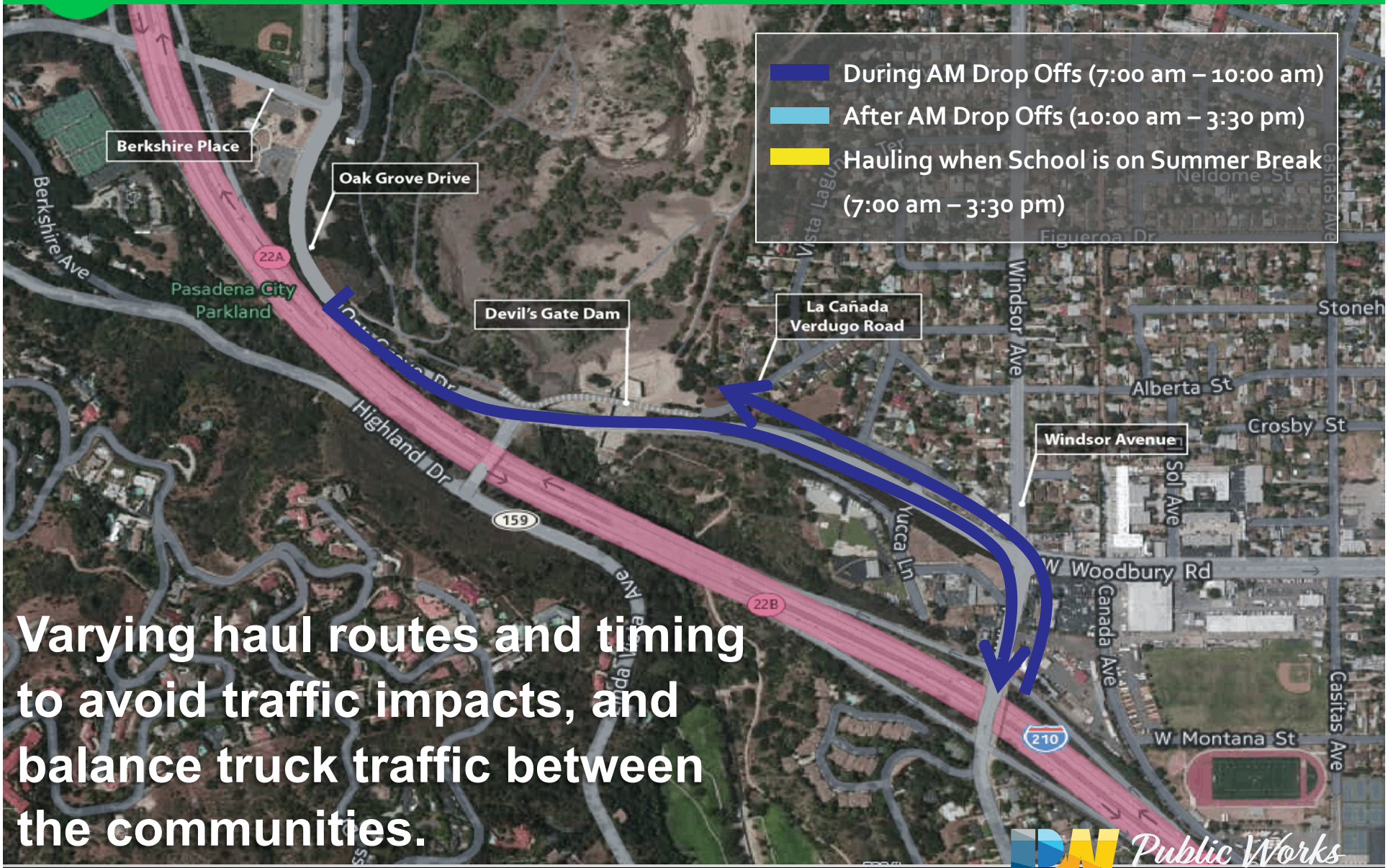
Phase 3: Sediment Removal

Street Sweeper on Haul Routes

Taking a Community-First Approach



Varying haul routes and timing to avoid traffic impacts, and balance truck traffic between the communities.

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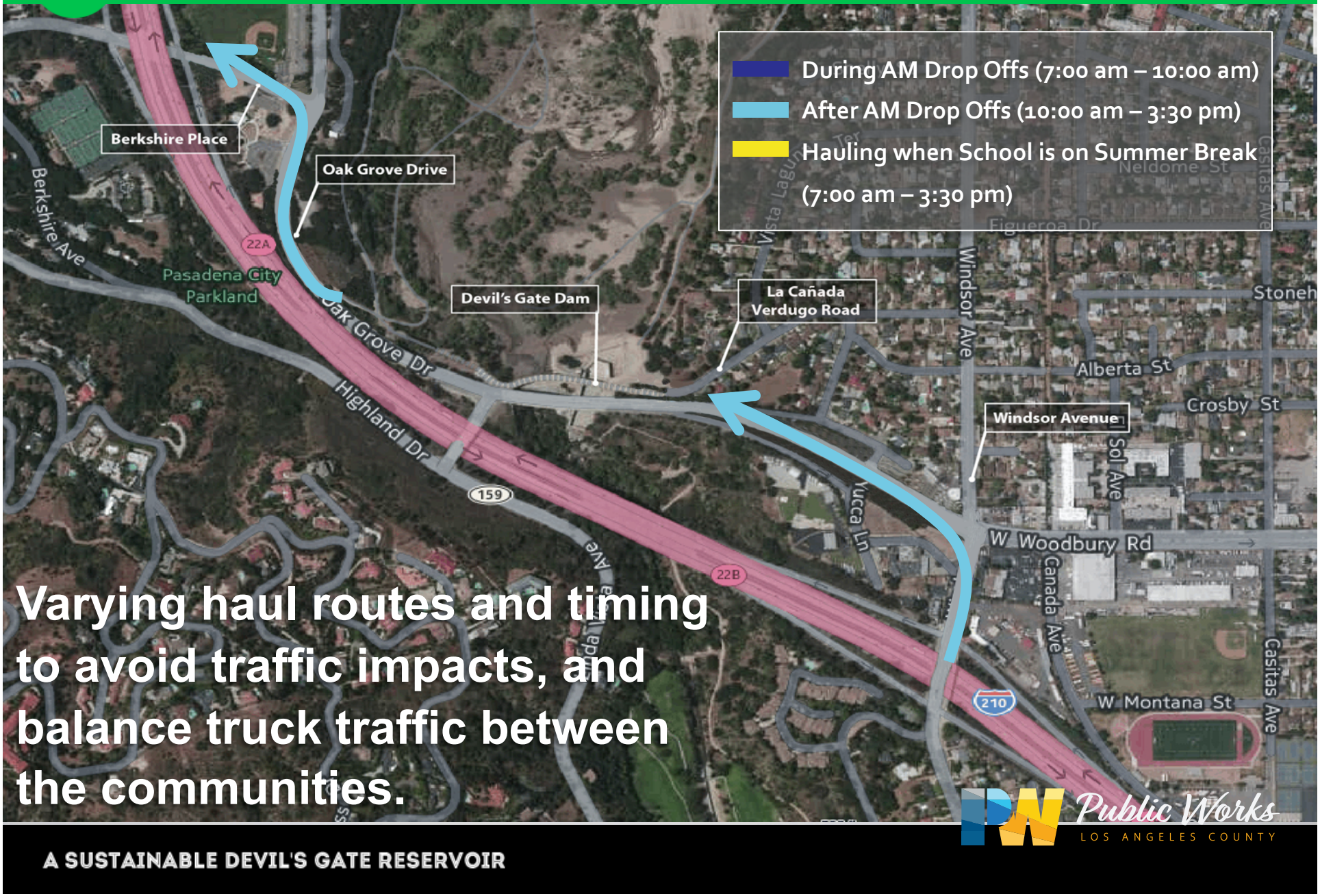
Taking a Community-First Approach



Varying haul routes and timing to avoid traffic impacts, and balance truck traffic between the communities.

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Taking a Community-First Approach

Varying haul routes and timing to avoid traffic impacts, and balance truck traffic between the communities.

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Soil Sampling

- Following the 2009 Station Fire, 1.3 MCY of sediment came off the San Gabriel Mountains during the 2010 storm season.

- EIR: In 2011, 24 soil samples were taken at various depths from 4 boring locations, up to a maximum 30' depth
  - "Arsenic concentrations consistent with the average concentration range in California soils of 3.5 mg/kg and can be mitigated with adequate dust suppression including the use of water trucks to moisture condition soil during grading and excavation operations."
  - "All other concentrations of contaminants of concern are below risk management criteria and regulatory thresholds, and are not considered a hazard."

https://dpw.lacounty.gov/wrd/Projects/DevilGate/FEIR/Appendix_F_-_Geotechnical_Report.pdf

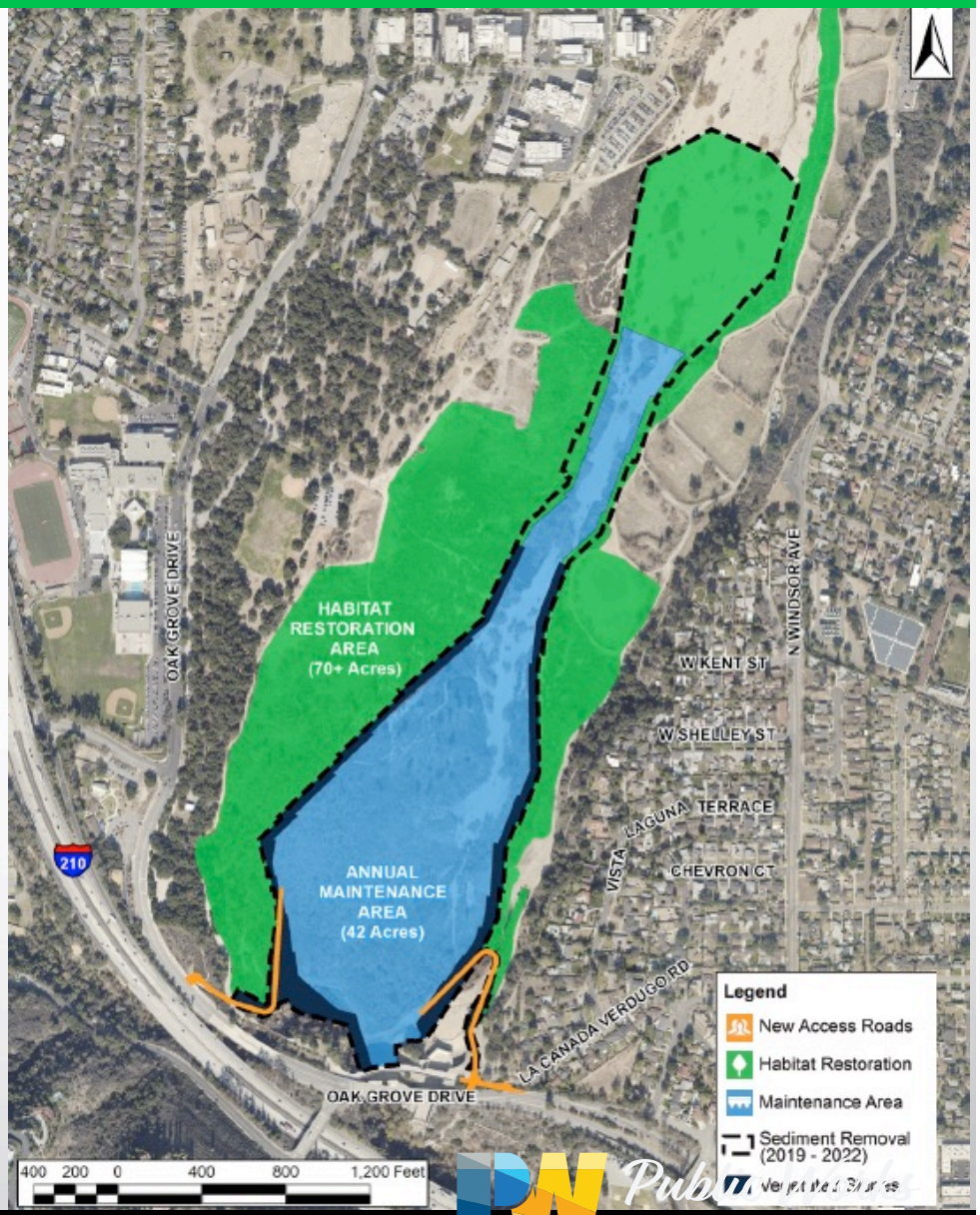
Above and Beyond

- Community requested additional recent soil sampling be performed.
- In February 2019, 21 additional soil samples were taken at various depths from 5 boring locations, up to design depth.
- Results were again consistent with the EIR. Concentrations of contaminants of concern are below risk management criteria and regulatory thresholds.

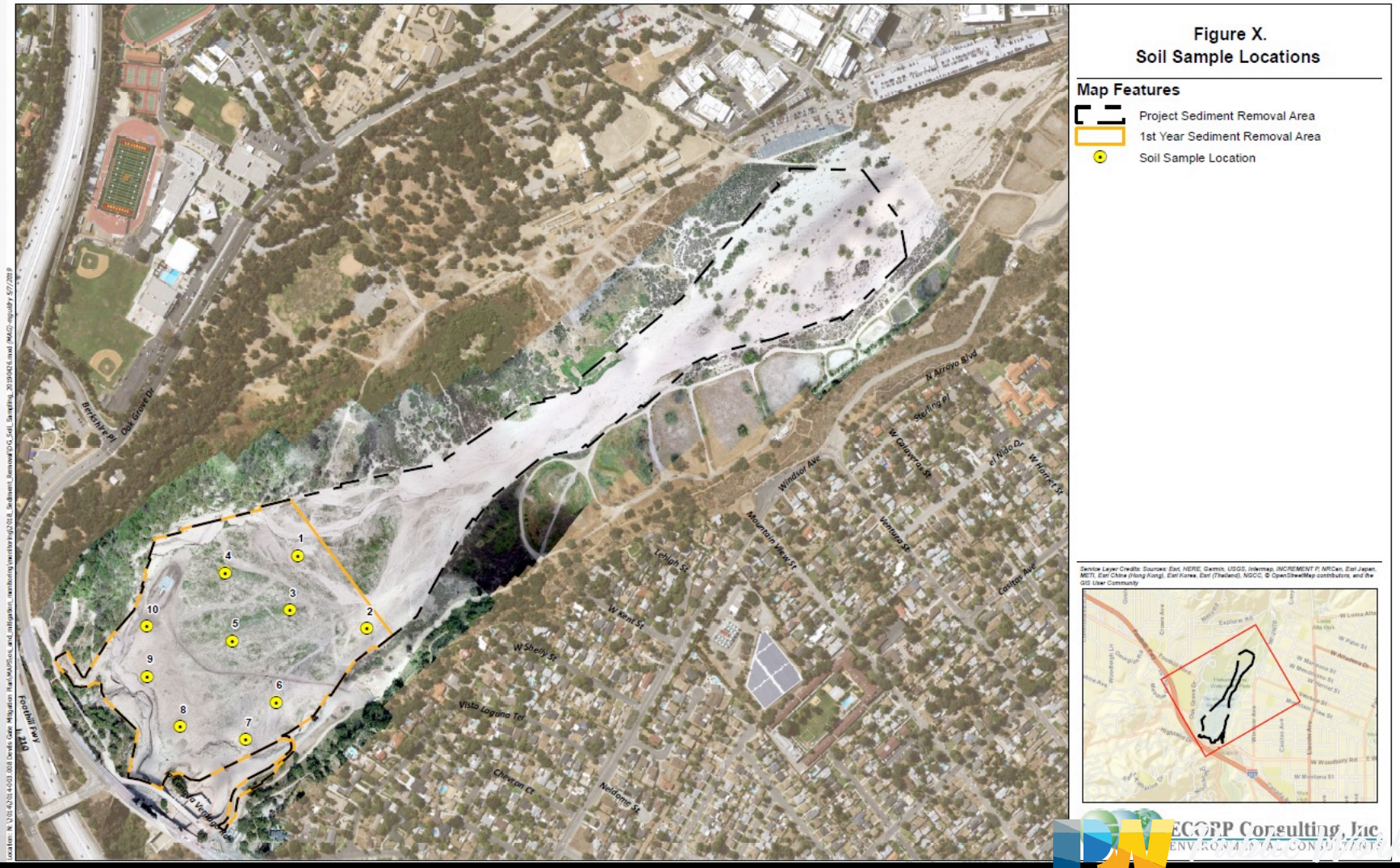
https://dpw.lacounty.gov/swe/devilsgate/docs/Sediment%20Assessment%20-%20March%202019.pdf

Glyphosate Use

- On March 19, 2019, the Board of Supervisors temporarily banned the use of the herbicide, glyphosate, until further research can be done to identify alternative methods for vegetation management and the safety can be reviewed by Public Health professionals.
- Glyphosate was used around the perimeter of the project to control the non-native invasive species as part of Habitat Restoration activities
- No spraying was performed on the sediment that will be hauled off-site.



Additional Soil Sampling



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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Additional Soil Sampling

- For added confirmation, 10 samples taken from sediment that will be removed within the first year
- All 10 tests analyzed were clean and glyphosate was non-detectible.
- Sampling report can be found here: https://dpw.lacounty.gov/swe/devilsgate/docs/SoilSampleAnalysis-May2019.pdf

Above and Beyond – Recalled Trucks

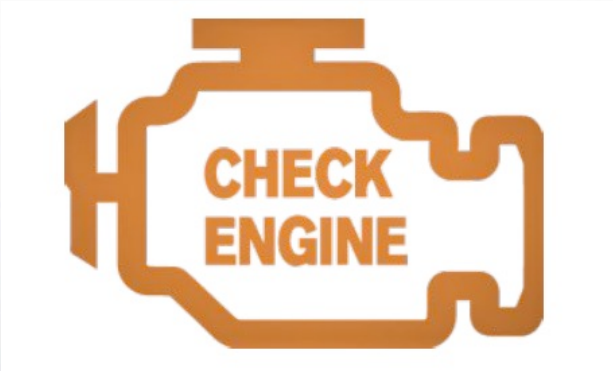
- The list of recalled Cummins Engine Families are found here: https://ww3.arb.ca.gov/msprog/truckstop/azregs/cumminsrecall.htm
- Public Works has committed to not allowing trucks that are affected by the emissions recall to perform work on the project until they have been repaired.
- Compliance verification information can be found here: https://dpw.lacounty.gov/swe/devilsgate/docs/SedimentHaulTruckCompliance.pdf

Above and Beyond – PSIP Testing

- The community is concerned that 2010 trucks could still be high polluters and requested the County have each truck perform a Periodic Smoke Inspection Program (PSIP) Test.
- The current CARB threshold for engines 1991 or newer: **40% opacity.**
- The community has requested that we reduce the threshold down to **5% opacity and the County agreed**.
- Based on this request, the County is paying for Owner Operators to conduct PSIP tests and submit passing results to Public Works prior to performing work on this project.
- **Additionally, Public Works will have a CARB certified Visible Emission Evaluation (VEE) person on site weekly.**
- Compliance verification information can be found here: https://dpw.lacounty.gov/swe/devilsgate/docs/SedimentHaulTruckCompliance.pdf

Above and Beyond – Check Engine Lights

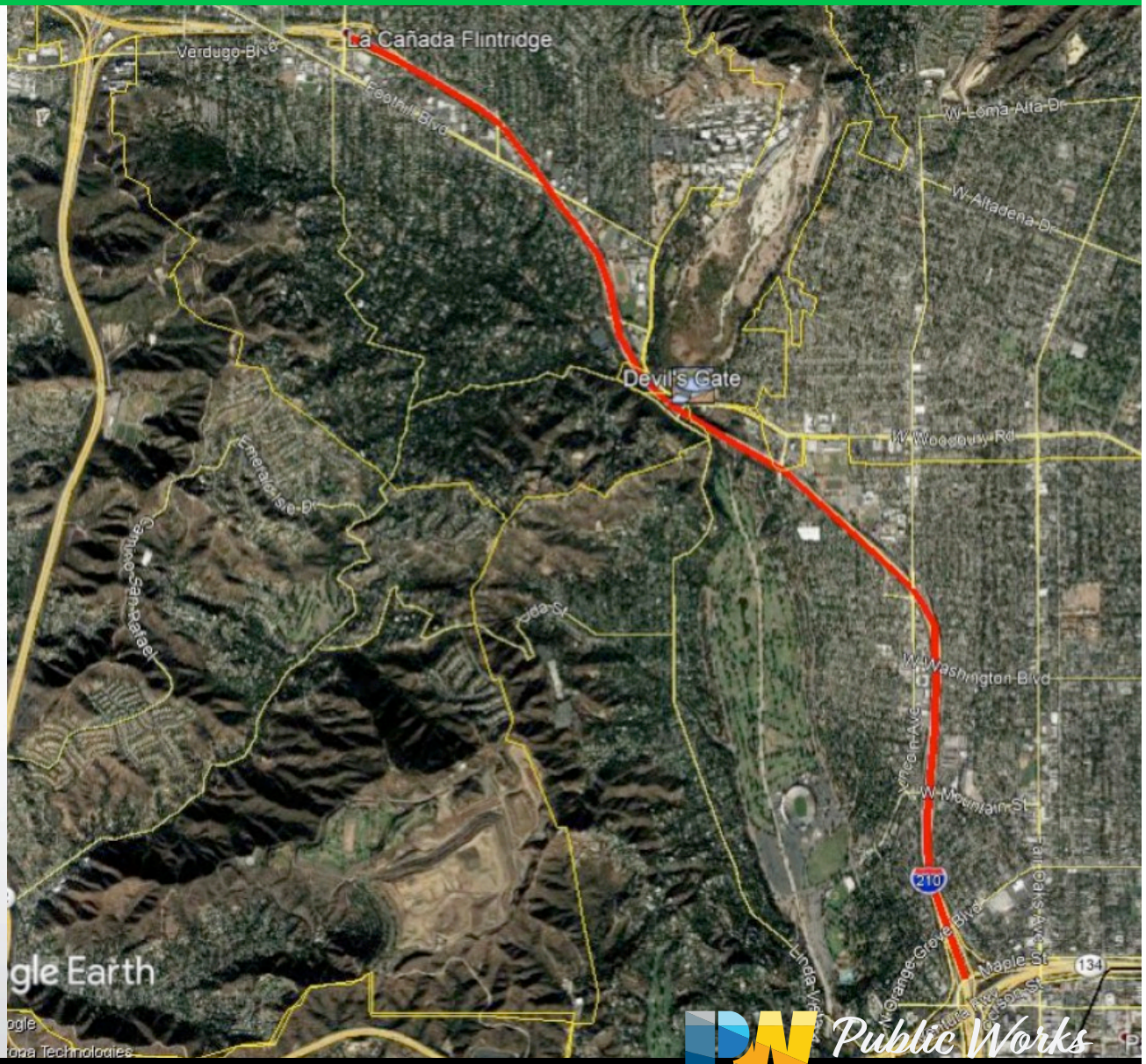
- During PSIP testing, the technician is checking to ensure the malfunction-indicator light (MIL) is not on.
- Additionally, as part of our compliance program, throughout the duration of the Project, the County will randomly check trucks to make sure the MIL is not on. If the light is on, repairs will be required before returning to the Project.



Taking a Community-First Approach

What is the true local impact?

- 5 mile stretch of I-210 between Route 2 and Route 134.
- In either direction:
  - 0.6 miles surface streets
  - 2.5 miles freeway
  - 3.1 miles traveled per trip
- **5.26 pounds** of overall 56.9 pounds daily NOx emissions within 3.1 miles of Reservoir



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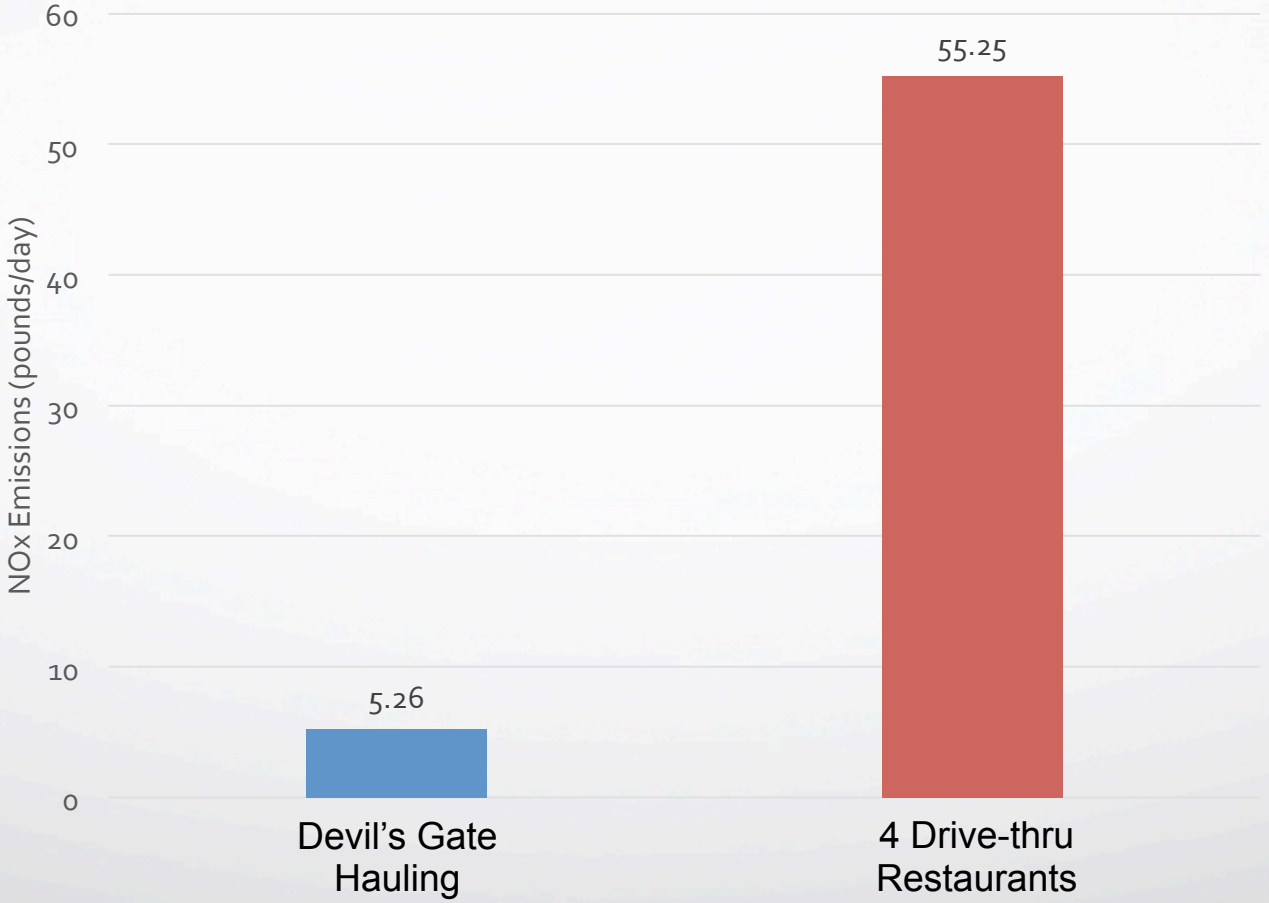
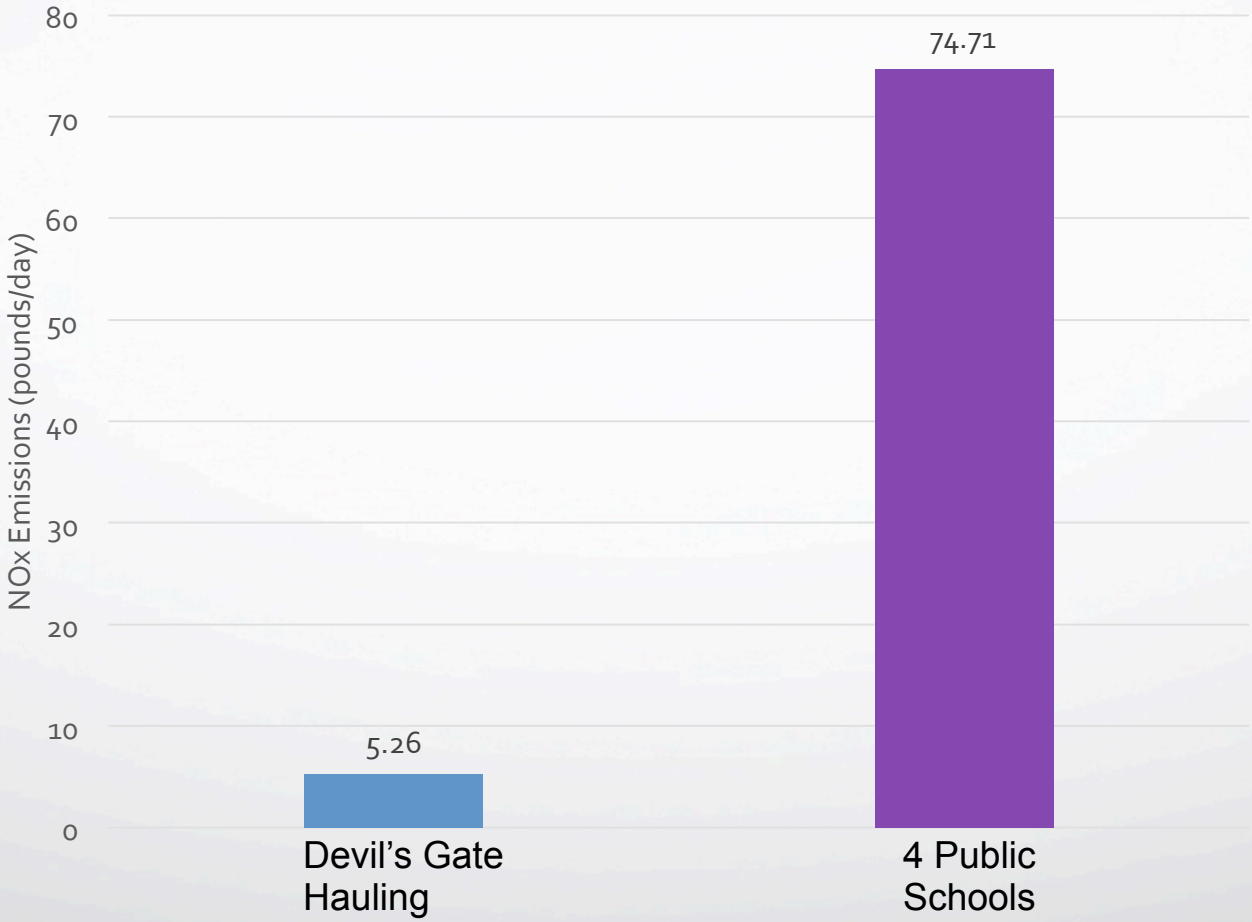
Local Daily NOx Emissions



https://dpw.lacounty.gov/swe/devilsgate/docs/PreliminaryLocalizedHaulTruckNitrogenOxideEmissionsDemonstration.pdf

Local Daily NOx Emissions



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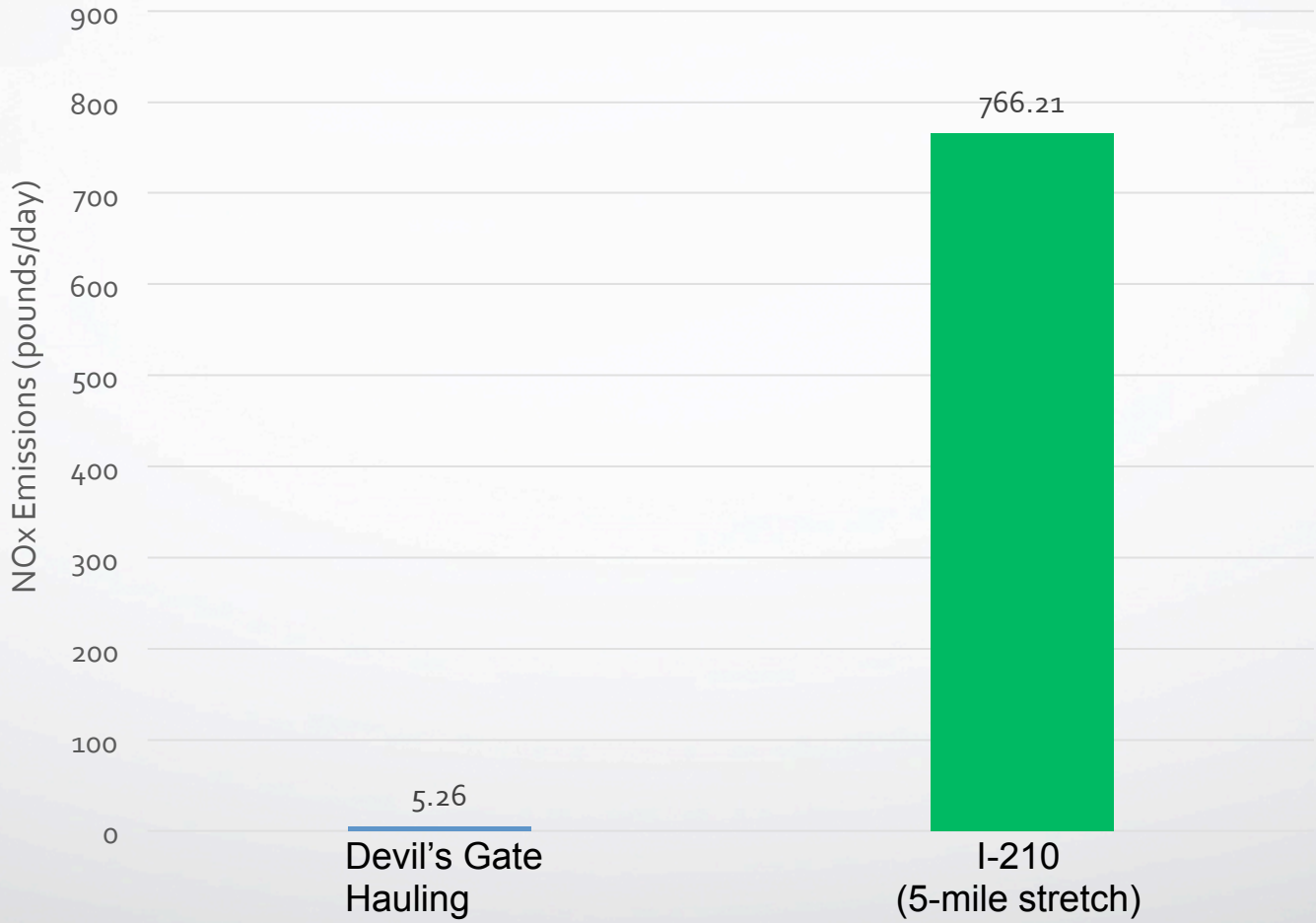
Local Daily NOx Emissions



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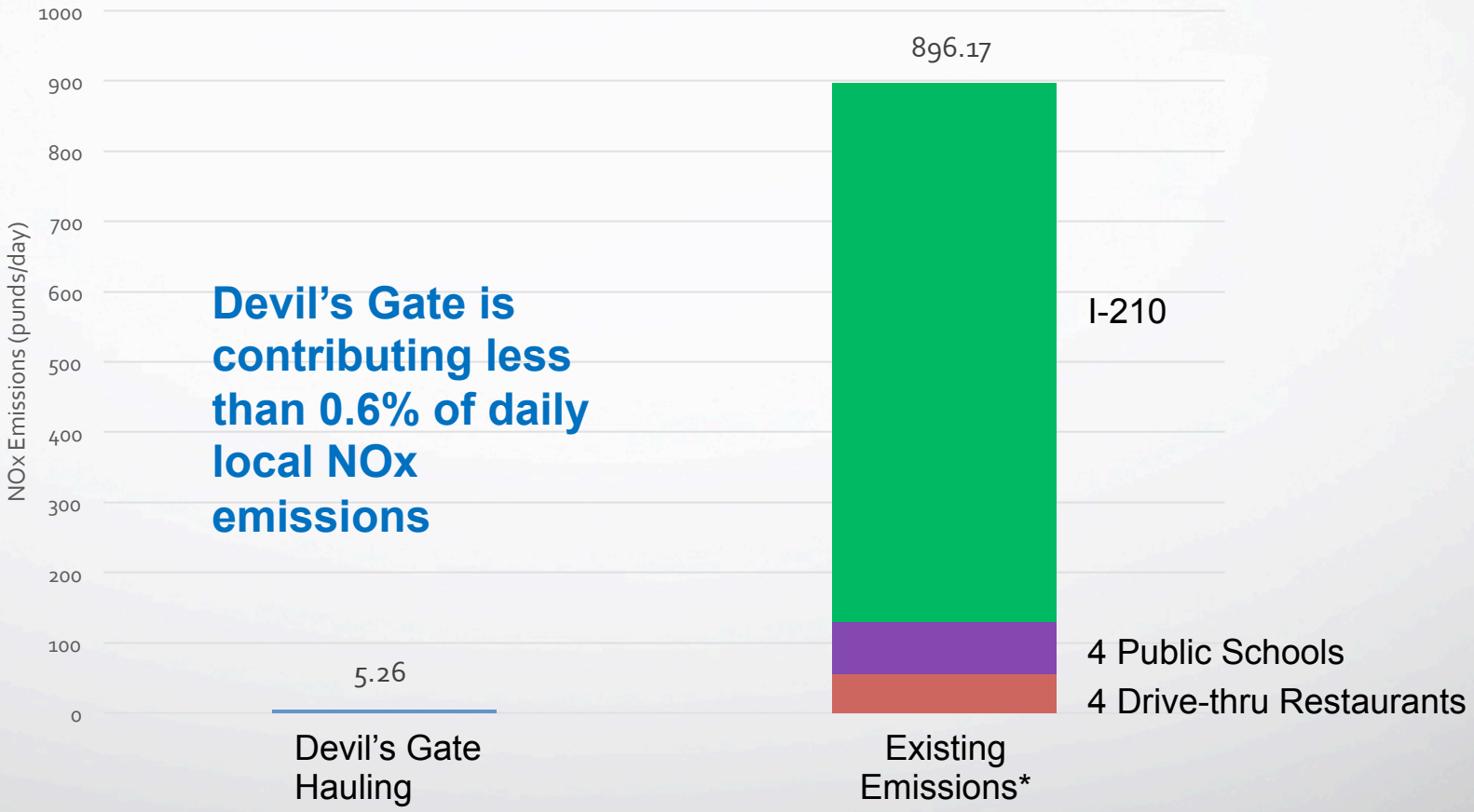
Local Daily NOx Emissions



*Does not include commuter traffic, houses, or industrial facilities

https://dpw.lacounty.gov/swe/devilsgate/docs/PreliminaryLocalizedHaulTruckNitrogenOxideEmissionsDemonstration.pdf

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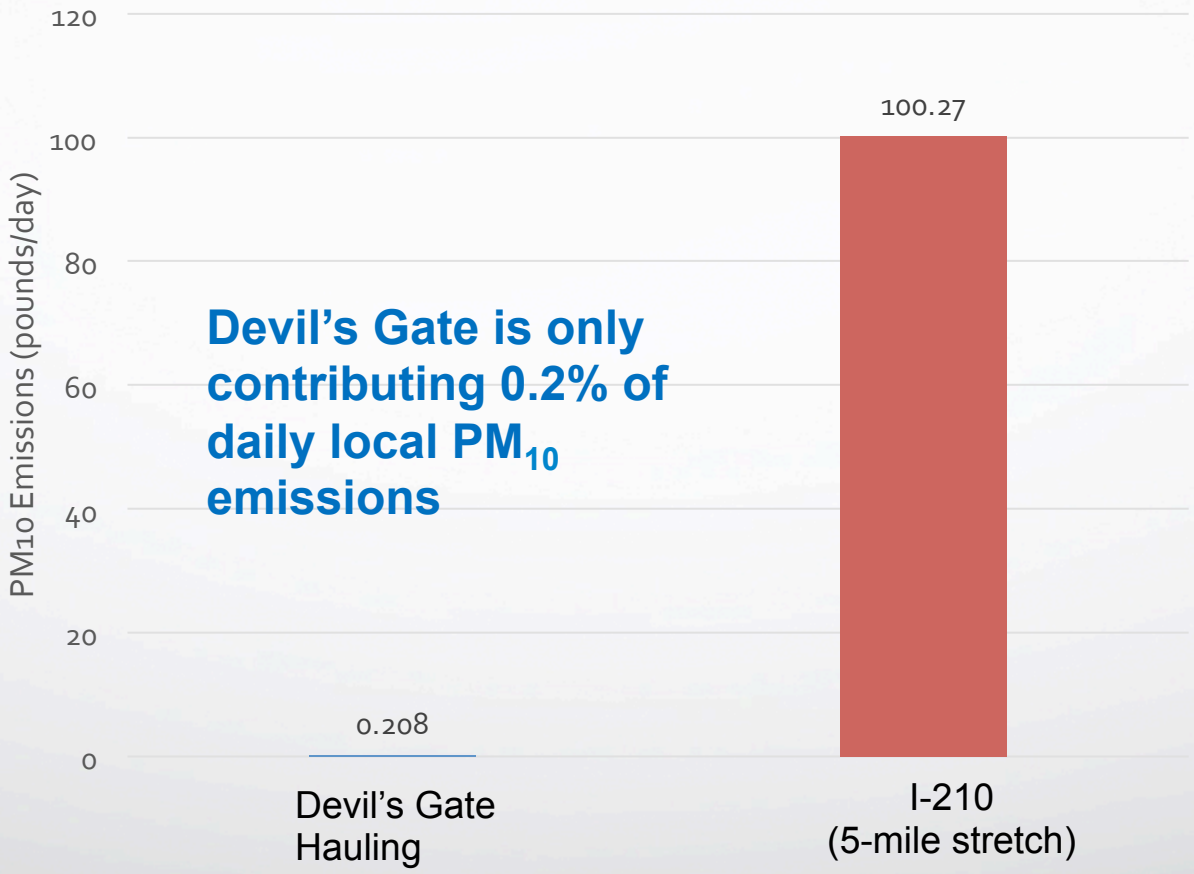
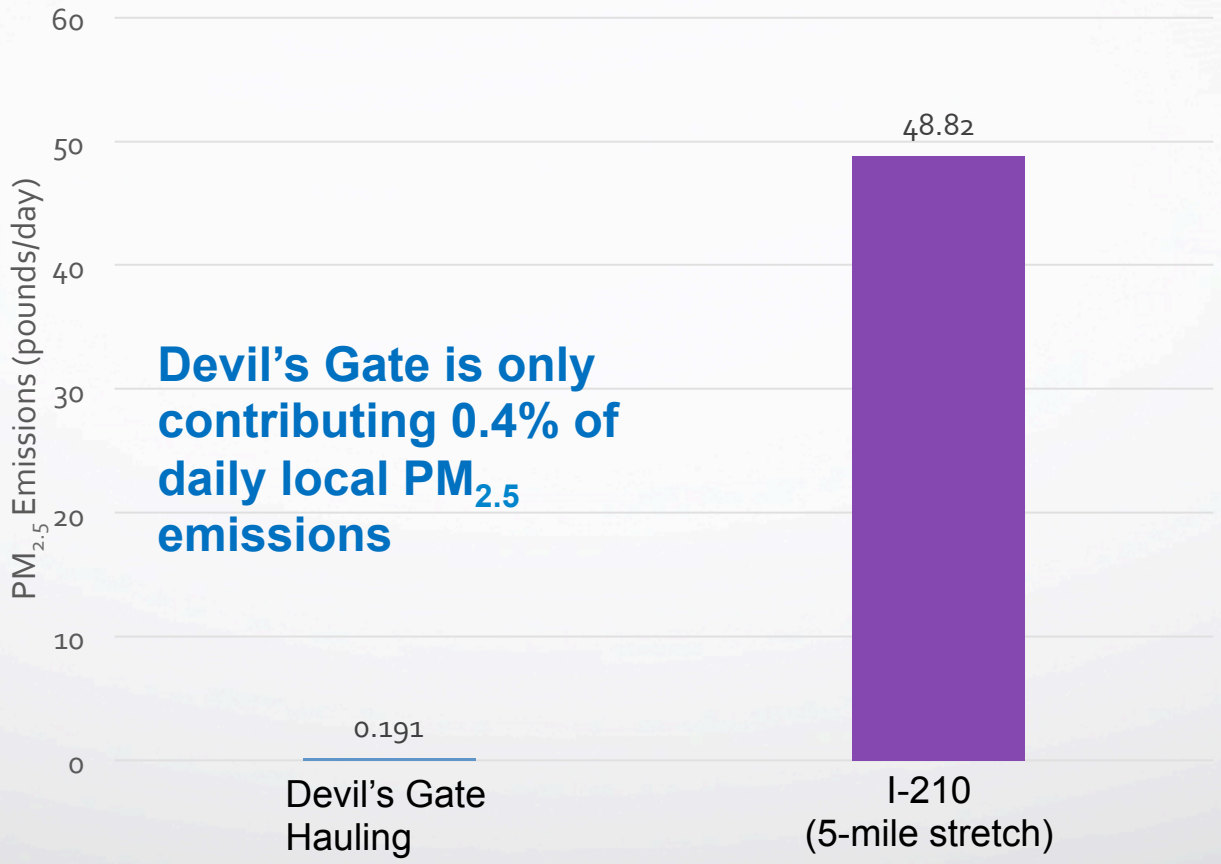
Local Daily PM_{10} Emissions



https://dpw.lacounty.gov/swe/devilsgate/docs/PreliminaryLocalizedHaulTruckParticulateMatterEmissionsDemonstration.pdf

Local Daily $PM_{2.5}$ Emissions



https://dpw.lacounty.gov/swe/devilsgate/docs/PreliminaryLocalizedHaulTruckParticulateMatterEmissionsDemonstration.pdf

Above and Beyond – Off Road Equipment

- Public Works will ensure 75 percent of the equipment to be used on the project is Tier 4. Public Works will strive to exceed this percentage when possible.
- Compliance verification information can be found here: https://dpw.lacounty.gov/swe/devilsgate/docs/OffRoadEquipmentInventory.pdf

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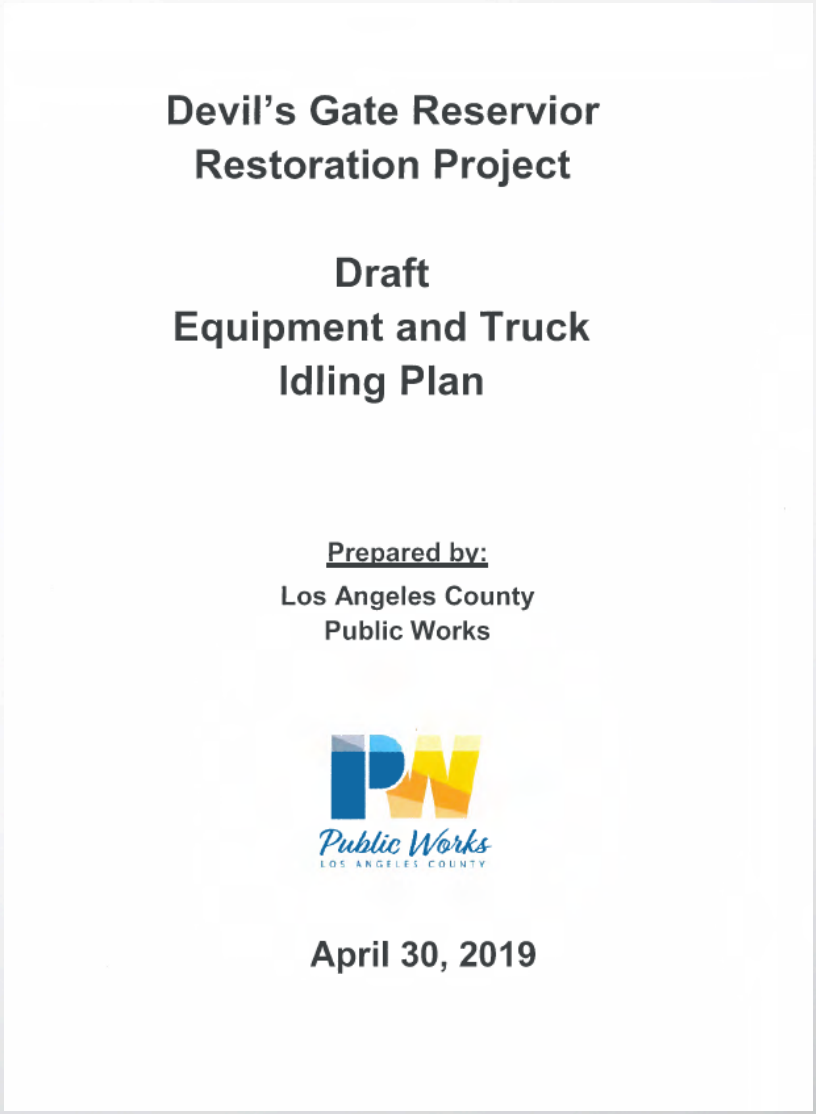
Above and Beyond

- **Equipment & Truck Idling Plan** - https://dpw.lacounty.gov/swe/devilsgate/docs/DraftEquipmentandTruckIdlingPlan.pdf

- **Draft Fugitive Dust Control Plan** – https://dpw.lacounty.gov/swe/devilsgate/docs/DraftFugitiveDustControlPlan.pdf


Devil's Gate Reservior
Restoration Project

Draft
Equipment and Truck
Idling Plan

Prepared by:
Los Angeles County
Public Works

Public Works
LOS ANGELES COUNTY

April 30, 2019

Above and Beyond

Oak Grove Drive/Berkshire Place Signal Improvements

- La Canada Flintridge & Pasadena have approved plan. Currently in the process of securing a contractor to perform the work.
- Incorporation of left turn phasing for trucks traveling NB on Oak Grove Drive.
- Until the modifications are completed, LA County Sheriff will control traffic through intersection during peak hour (2:30 - 3:30 pm) daily during hauling

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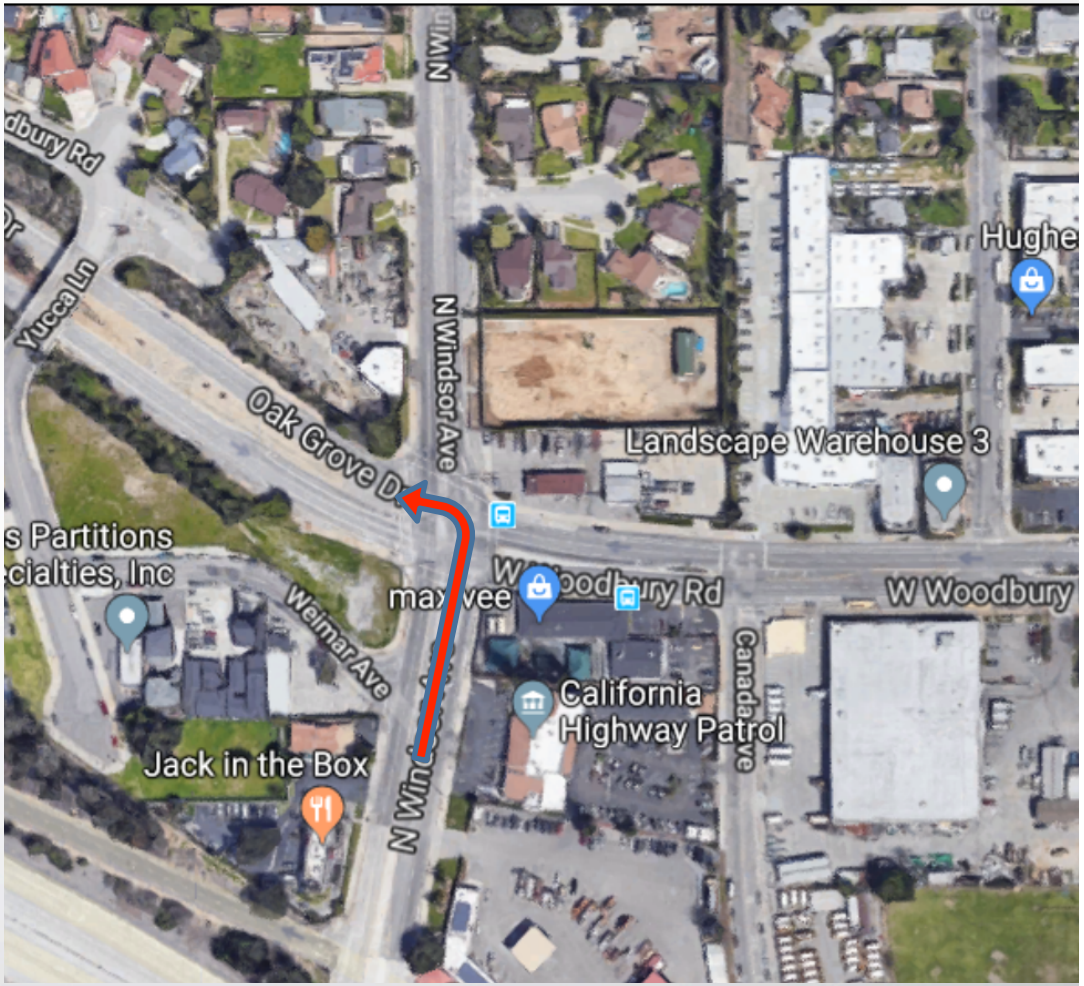
Above and Beyond

Oak Grove Drive/Windsor Ave

Signal Improvements

- LA County Public Works has just completed their traffic analysis
- Incorporation of left turn phasing for trucks traveling NB on Oak Grove Drive.
- We are currently waiting to get a schedule for the work, but is expected to be completed fairly quickly.



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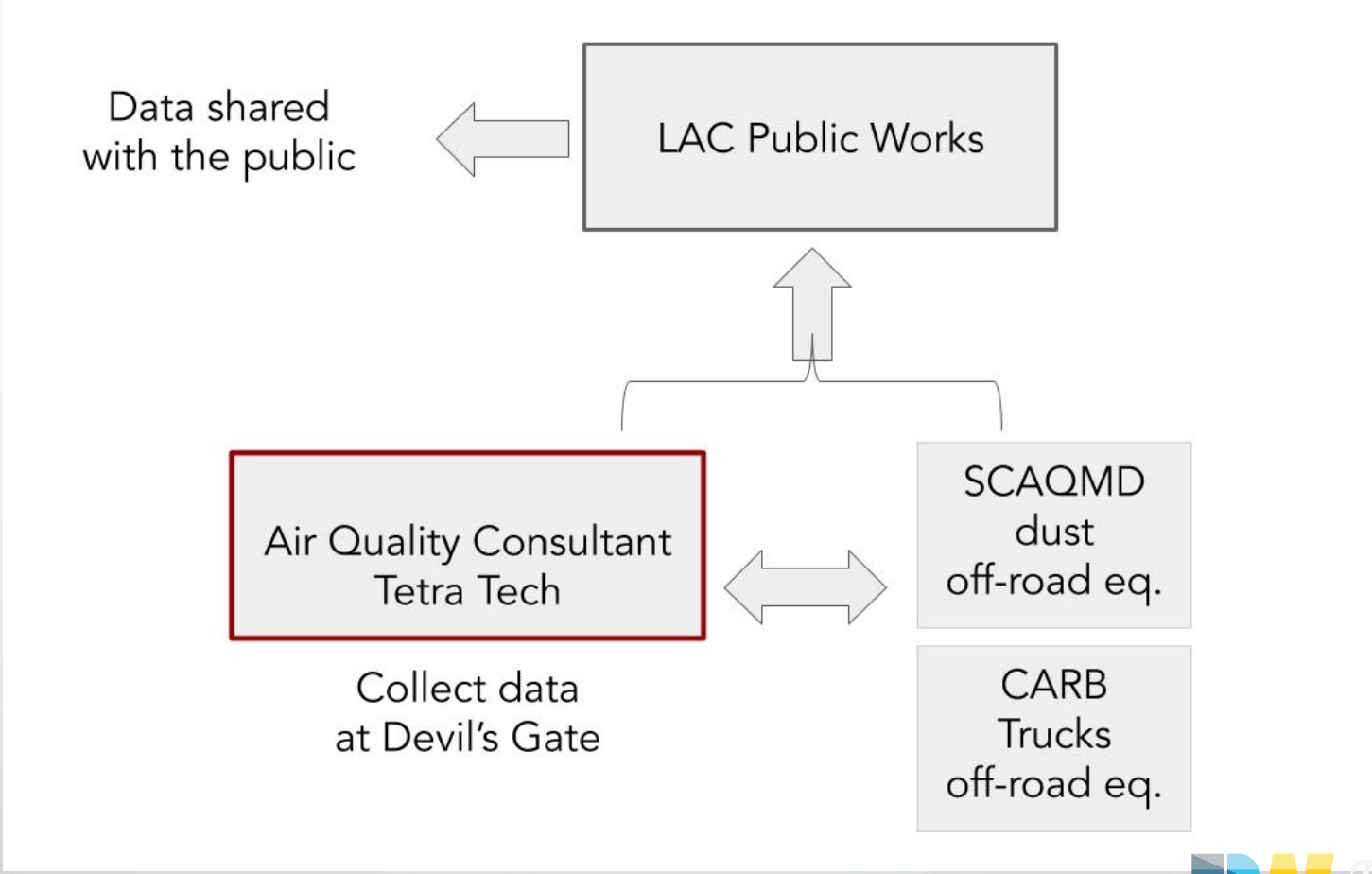
April 2, 2019 LA County Board Motion

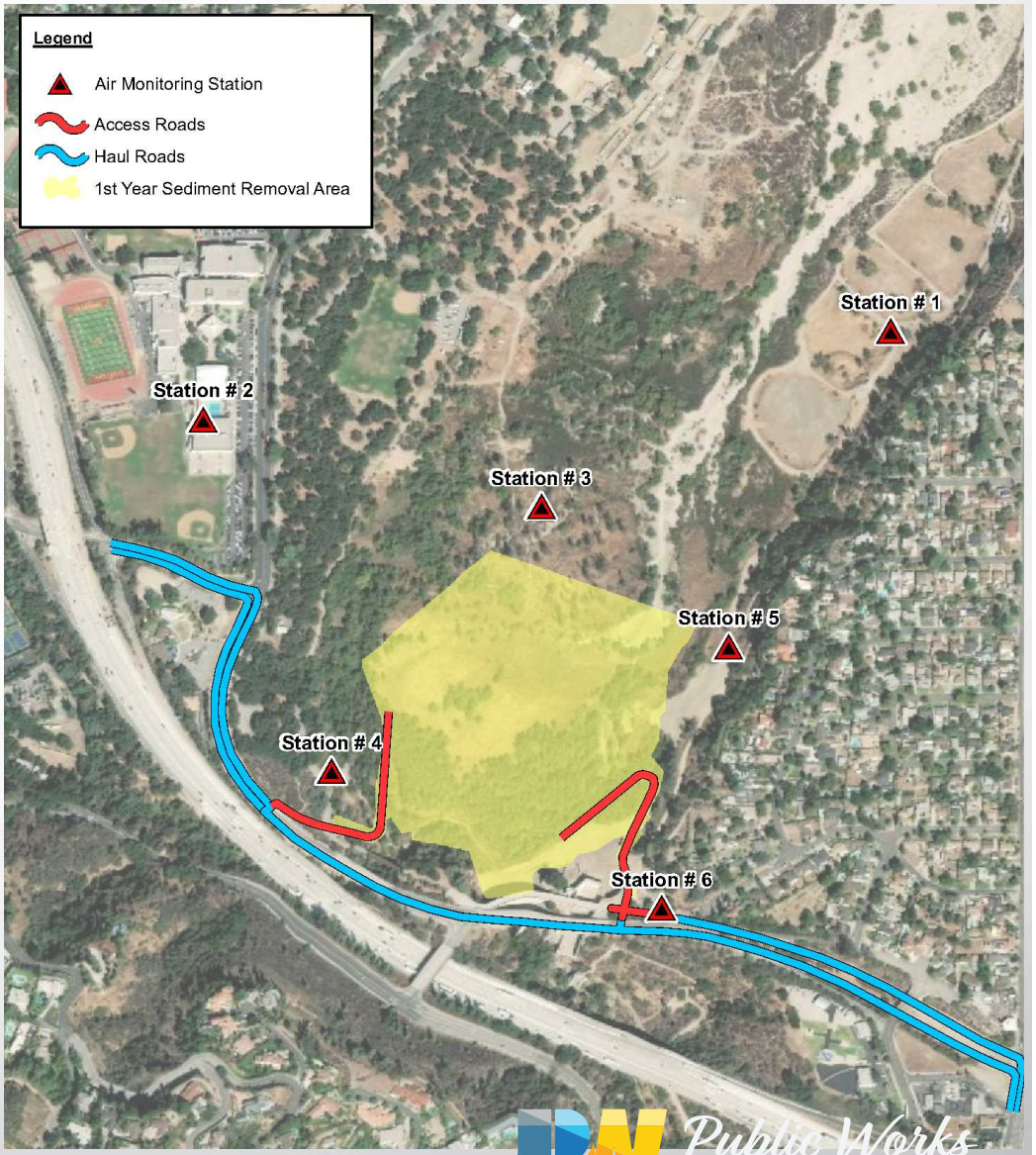
Hiring of air quality consultant to place devices and monitor the Project



Draft Air Quality Monitoring Workplan

Station ID	Sampling Station	Parameter Measured
1	Upwind from Freeway (afternoon) / upwind of Site (night)	- PM_{10}, $PM_{2.5}$, and BC - NO_x, - wind speed, wind direction, temperature, humidity
2	Upwind from Freeway (afternoon) / downwind from Site (night)	- PM_{10}, $PM_{2.5}$, and BC - NO_x - wind speed, wind direction, temperature, humidity
3	Perimeter monitoring	PM_{10}, $PM_{2.5}$ and BC
4	Perimeter monitoring	PM_{10}, $PM_{2.5}$ and BC
5	Perimeter monitoring	PM_{10}, $PM_{2.5}$ and BC
6	Community monitoring	- PM_{10}, $PM_{2.5}$ and BC - NO_x - wind speed, wind direction, temperature, humidity

https://dpw.lacounty.gov/swe/devilsgate/docs/PreliminaryComplianceMonitoringandAmbientAirMeasurementsWorkplan.pdf



Taking a Community-First Approach

Handouts

devilsgateproject.com

- Resources Tab
  - Community Resources
  - Protecting Communities
  - Biological Resources
  - Environmental Analysis
  - Project Approvals
  - EIR
- Sign up for email blast project updates

Devil's Gate Reservoir Restoration Project - Hauling Process

A Responsible Approach to Sediment Removal

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LOS ANGELES COUNTY

devilsgateproject.com devilsgateproject@dpw.lacounty.gov Hotline (626) 458-2507

Project Overview

- The 2009 Station Fire burned more than 160,000 acres of the San Gabriel Mountains. Subsequent storms brought in more than 1.3 million cubic yards (MCY) of sediment into Devil's Gate Reservoir (enough to fill the Rose Bowl three times).
- Devil's Gate Reservoir currently lacks storage capacity for even one major debris event from natural disasters such as fires.
- Los Angeles County Public Works must remove the excess sediment behind the dam to protect downstream communities along the Arroyo Seco; these include the Cities of Pasadena, South Pasadena, northeast Los Angeles and portions of the 110 Freeway.
- Once the project is complete, the reservoir will have 3 MCY of capacity to better manage flood risk.
- Public Works will establish a permanent maintenance area that is cleaned annually to avoid large-scale sediment removal projects in the future.

Enhancing Flood Protection through Sediment Removal

The excess sediment in Devil's Gate Reservoir could prevent the dam from doing its job, putting lives and property at risk. The sediment threatens to block the valves that allow dam operators to release stormwater in a controlled manner. For the past nine years, Public Works has engaged with local cities, businesses, non-profits, community organizations and stakeholders sharing information and listening to concerns. The sediment removal process will begin in April 2019.

Reducing Impacts with Hauling and Construction Requirements

Hauling Equipment: Public Works is taking numerous steps to minimize the project's impact, including the use of diesel trucks for hauling that meet or exceed the U.S. Environmental Protection Agency's 2010 emission standards. The following project elements have been incorporated to minimize impacts:

- New access ramps will keep sediment hauling away from residential areas.
- A temporary sound barrier will be built for the new entrance ramp being built from Oak Grove Drive.
- All hauling will be limited to Monday - Friday, 7 a.m. - 3:30 p.m., and c[illegible] schoo[illegible] drop-offs. No hauling on weekends, holidays, or during major Rose Bowl events.

Questions?

For More Information:

Subscribe to our e-mail list to receive updates on the project.

www.DevilsGateProject.com

devilsgateproject@dpw.lacounty.gov

Hotline: (626) 458-2507

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