To: Northern Sierra Air Quality Management District Board of Directors

From: Gretchen Bennitt, Air Pollution Control Officer

Date: September 24, 2018

Agenda Item: IV.A

Agenda Description: Discussion and Adoption of the AB2766 DMV Surcharge Proposals for 2018/2019

Issues:
The District received the project proposals presented in the attachments. Project proponents were requested to attend today's meeting to respond to any questions from the Board.

Requested Action:

1. Listen to presentation from grantees, consider approval of proposals

ROLL CALL VOTE REQUESTED

Attachments:
1. Ranking and Discussion of FY 2018-2019 AB2766 Projects
2. Spreadsheet - AB2766 Available Funds 2018-2019 Cycle
3. Individual Project Proposals

RFPs Submitted for Grant Cycle Year 2019

	County	Applicant	Project Description	Staff Ranking (100 pts Max.)	Requested Grant Amount	Co-Funding by Applicant	Cost Effectiveness Score	Information for Consideration
G1	Nevada	Hansen Bros. Enterprises	Purchase of cleaner diesel truck	87	$ 25,000.00	$ 93,425.00	5 year project life: $ 9.12 per pound	
G2	Nevada	Tahoe Truckee Unified School District	Replace older school bus with a new low NOx bus	77	$ 165,000.00	$ 23,766.03	10 year project life: $ 4.19 per pound	
G3	Nevada	Town of Truckee	Subsidy of Truckee to Kings Beach Public Transit	75	$ 67,696.00	$ 598,590.00	5 year project life: $ 30.93 per pound	
G4	Nevada	Town of Truckee	Purchase of Electric vehicles and charging stations	71	$ 39,948.00	$ 50,000.00	20 year project life: $ 64.55 per pound	
G5	Nevada	Nevada County Library	Purchase of E-books	71	$ 20,000.00	$ 6,044.00	5 year project life: $ 4.22 per pound	Applicant has received grant money for 5 of the last 6 years for this project
G6	Nevada	Nevada County Health & Human Service	Purchase of Video Conferencing System	62	$ 40,000.00	$ 10,000.00	5 year project life: $ 40.29 per pound	
G7	Nevada	Yuba Bus	Purchase of an all-electric bus	62	$ 86,000.00	$ 89,000.00	3 year project life: $ 60.58 per pound	
G8	Nevada	Nevada County Library	Purchase of lockers for remote location book pickups and drop-offs	60	$ 65,785.00	$ 13,748.00	7 year project life: $ 53.29 per pound	
G9	Nevada	Foster & Sons Trucking	Purchase of two diesel particulate filters	50	$ 26,456.82	$ 4,000.00	5 year project life: $ 93.68 per pound	
G10	Nevada	Nevada City Police Department	Purchase of a Ford Fusion Hybrid	48	$ 25,000.00	$ 12,000.00	10 year project life: $ 129.31 per pound	This project exceeds the $100/lb CE limit, but may still have some merit.
G11	Nevada	Bear Yuba Land Trust	Purchase of laptop computers for telecommuting capabilities	38	$ 7,000.00	$ -	3 year project life: $ 96.95 per pound	
			Total of Requested Grant Amounts:		$ 567,885.82		Amount available for Disbursement: $ 178,195	

G12	Sierra	Inc. Senior Citizens of Sierra County	Subsidized van pool services for senior citizens	76	$ 5,672.00	$ 54,000.00	1 year project life:	$ 30.93	per pound	Applicant receives this grant each year.
			Total of Requested Grant Amounts:		$ 5,672.00		Amount available for Disbursement: $ 5,672.00			

** No projects were submitted from Plumas County in for FY 18-19, Funding Year 2019.

AB 2766 Approved Projects 2018-2019 Cycle 3/28/2018

AB 2766 Allocation for Grants from CY 2017 Revenue $ 219,134 <--- *this amount to be disbursed during CY 2019*

Source of DMV Funds by Area (2017 Census Data, http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-2/index.html)

Nevada County	81.3%	*98433 population*
Plumas County	16.1%	*19481 population*
Sierra County	2.6%	*3133 population*

FY 2018-2019 Allocations

	Allocation	Funds Remaining From Prev. Cycle	Funds Unspent From Projects	Allocation for Each Area
Nevada County	$ 178,195	$ -	$ -	$ 178,195
Plumas County	$ 35,267	$ -	$ -	$ 35,267
Sierra County	$ 5,672	$ -	$ -	$ 5,672
Total:	$ 219,134.00	$ -	$ -	$ 219,134

Current as of: 1/1/2018

Applicant's Name	PROJECT / PROGRAM DESCRIPTION	COUNTY	Funds Proposed	Funds Granted	AB2766 Contract #	Funds Expended	Funds Remaining
		Nevada				$ -	$ -
		Nevada				$ -	$ -
		Nevada				$ -	$ -
		Nevada				$ -	$ -
		Total:	$ -	$ -		$ -	$ -

Difference between funding allocations and proposed projects: $ 178,195 $ 178,195.39 <-- *these will be the carryover funds for next cycle*

No projects submitted from Plumas County		Plumas	$ -	$ -		$ -	$ -
		Total:	$ -	$ -		$ -	$ -

Difference between funding allocations and proposed projects: $ 35,267 $ 35,267 <-- *these will be the carryover funds for next cycle*

Incorporated Senior Citizens of Sierra County	*Funds used to sustain existing services for senior vanpool*	Sierra	$ 5,672	$ 5,672	**AB 2019-01**	$ -	$ 5,672
		Total:	$ 5,672	$ 5,672			**$ 5,672**

Difference between funding allocations and proposed projects: $ (0) $ (0) <-- *these will be the carryover funds for next cycle*

	Funds Proposed	Funds Granted		Funds Expended	Funds Remaining
TOTALS:	$ 5,672	$ 5,672		$ -	$ 5,672

EXHIBIT SUMMARY SHEET

Proposing Entity (include other participating entities): **Hansen Bros. Enterprises**

Contact Person: **Lerry Peterson**

Address: **P.O. Box 1599 (11727 La Barr Meadows Rd.) Grass Valley, CA 95945**

Phone #: **(530) 273-3381** FAX #: **(530) 273-4396** EMAIL: **lpeterson@gohbe.com**

Total Project Budget:	AB 2766 Funds	Co-Funding	Total Project Costs
Capital Costs	$25,000.00	$ 93,425.00	$ 118,425.00
Operating Costs	$ 0	$ 0	$ 0
TOTAL	$ 25,000.00	$ 93,425.00	$ 118,425.00

Type of Project: (check one)

X Quantifiable Project

___ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide X

Describe the Implementation Area for the Project (e.g. city, county, region):

Estimated Emission Reductions:

A. Emission Reductions (lbs/yr) **22.46**

Reactive Organic Gases **.86** Nitrogen Oxides **20.94** PM10 **.662**

B. Vehicle Miles Traveled (VMT) Reduced_____

Single Occupancy Vehicle Trips Reduced _____

C. Number of people reached per day through public education ___

Cost-effectiveness: **$ 9.12** per pound (AB 2766 Funds Only)

Brief Project Description: To improve air quality by purchasing a new 2018 class 8 HHD truck to replace a 1998 class 8 truck.

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: **Hansen Bros. Enterprises**

Please complete and attach this checklist with your application.

- [X] Exhibit Summary Sheet - page 1-1
- [X] Request for Proposal Contents Checklist - page 2-1
- [X] Authorization Letter/Resolution - page 3
- [X] Project Description - page 4
- [X] Project Organization/Background - page 5
- [X] Emissions Benefits/Cost-Effectiveness - page 6
- [X] Work Statement – page 7
- [X] Funding Request/Breakdown of Cost - page 8
- [X] Schedule of Deliverables/Monitoring - page 9
- [X] All Pages Numbered
- [ ] 3 Copies of Proposal, One Original, (X emailed)
- [ ] (CHECK ONE ONLY) Quantifiable X Project

  - OR -

- [ ] Reduced Emission Vehicles Project

GENERAL ENGINEERING CONTRACTOR
CSL# 207705
Residential & Commercial Site Development
Quality Aggregates & Ready Mixed Concrete
HBE Equipment Rentals • Sales • Service
Landscape & Masonry Products
U-Cart Concrete

A California Corporation

HANSEN BROS. ENTERPRISES

Established in 1953

Grass Valley: (530) 273-3381 – All Services
(530) 273-3100 - Rental Yard
(530) 272-5401 - Main Office Fax
Colfax: (530) 346-2432 – Ready Mix Concrete
(530) 346-8174 - Landscape/Masonry Yard
(530) 346-8798 - Main Office Fax
www.gohbe.com

January 3, 2018

To Whom It May Concern:

At a regularly scheduled Board of Directors meeting, December 26, 2017, the board restated the resolution of the board authorizing any and all of the corporate officers of Hansen Bros. Enterprises to conduct all normal business of the corporation, including, but not limited to, banking and financial transactions, securing of operating capital, equipment purchases, equipment loans, acquisitions or disposal of businesses, property, land, line(s) of credit, real estate transactions, insurance, bonding and other business of the corporation.

Duly elected officers of the corporation are:

Jeffery I. Hansen	President and General Manager
Sue H. Peterson	Corporate Secretary and Vice President
Frank P. Bennallack	Corporate Treasurer and Vice President
Lerry D. Peterson	Vice President, Special Projects
Craig I. Arthur	Rental Manager and Vice President
Helen Hansen	Cash Manager and Vice President
Kirk C. Harris	Construction Manager and Vice President

These officers, any and all, are hereby directed to conduct the business of the corporation of Hansen Bros. Enterprises.

Sincerely,

Sue H. Peterson

Sue H. Peterson
Corporate Secretary
Hansen Bros. Enterprises
speterson@gohbe.com

Mailing Address: P.O. Box 1599, Grass Valley, CA 95945
Locations: 11727 La Barr Meadows Road, Grass Valley, CA 95949 • 44 Central Street, Colfax, CA 95713

Project Description

Applicant: Hansen Bros. Enterprises

Objectives:

- To improve air quality by Purchasing a new 2018 class 8 HHD truck to replace a 1998 class 8 truck which ran 9,609 miles in 2017;
- The 1998 truck will then be sold out of state or retired and rendered inoperable.

Scope:

1. Write specifications for the purchase of a new 2018 Concrete Ready Mix truck.

2. Request bids for the purchase of the new 2018 class 8 HHD truck.

3. Order the above mentioned 2018 truck that meets the specifications and has the most competitive responsible quote.

4. Take delivery of the new truck.

5. Remove the mixer unit from the1998 truck and install that mixer unit on the new 2018 truck.

6. Sell the 1998 truck out of state before the end of 2019 and provide proof of purchase from an out of state purchaser to NSAQMD OR

7. Retire and render the 1998 truck inoperable, with no chance of repair, by breaking a hole in the engine block and cutting the frame off just behind the cab. Photos will be provided to NSAQMD.

8. The odometer readings for the new 2018 truck will be recorded annually through the company's computerized program to calculate cost effectiveness of AB2766 DMV surcharge program.

Project Organization/Background

Applicant: Hansen Bros. Enterprises

Organization: Hansen Bros. Enterprises started business in 1953 and is a General Engineering Contractor, CSL 207705, producer of aggregate materials, ready mix concrete, a landscape and masonry materials supplier and operates 2 equipment rental yards.

At present time Hansen Bros. has approximately 100 employees, operates 45 Heavy Duty Diesel trucks and 95 Diesel Off-Road pieces of heavy equipment. Operations are seasonal.

Background (Air Quality Improvements): AB 2766 and AB 923 with PCAPCD, 2011: Repower with a tier 3 engine in a 1999 John Deere 544H loader. Provider and installing subcontractor: Pape Equipment, the Sacramento John Deere dealer. PCAPCD contact: Heather Kuklo at 530-745-2339.

Hansen Bros. Enterprises funded, 2011: Installations of Cleaire Longmile, Diesel Particulate Filters, on 4 class 8 trucks. Provider and installer: Cummins West of Sacramento and A-Z Bus Sales Emissions Solutions Group, installed 2 units each.

Carl Moyer funded programs with NSAQMD, 2008 and 2012: Repowers of new tier 3 engines on 1976 and 1979 Caterpillar 633D scrapers. Provider and installing subcontractor: Holt of California, the Sacramento Caterpillar dealer.

AB 2766 DMV Surcharge Fund Program with NSAQMD, 2012: Cleaire Longmile Diesel Particulate Filters installed on 4 more trucks. Provider and installer: A-Z Bus Sales Emissions Solutions Group of Sacramento, California.

AB 2766 DMV Surcharge Fund Program with NSAQMD, 2013: Purchase of 2014 Class 8 Diesel Truck. Provider: Nor-Cal Kenworth, Sacramento, California.

AB 2766 DMV Surcharge Fund Program with NSAQMD, 2014: Purchase of 2015 Class 8 Diesel Truck. Provider: Nor-Cal Kenworth, Sacramento, California.

AB 2766 DMV Surcharge Fund Program with NSAQMD, 2015: Purchase of 2016 Class 6 Diesel Truck. Provider: Nor-Cal Kenworth, Sacramento, California.

AB 2766 DMV Surcharge Fund Program with NSAQMD, 2017: Replace 7 ea. recalled Cleaire

Longmile Diesel Particulate filters, by Holt of California, Sacramento, CA.

Hansen Bros. Enterprises tracks all costs and progress daily with Viewpoint Construction Software, Equipment Management module. Work Orders are assigned for maintenance, repairs and subcontract work. Mileage and hours of trucks and equipment are logged and entered into the computer on a reoccurring basis, so we can track both cost efficiency and emissions reductions.

Preparation and management of this project will be handled by Lerry Peterson, Vice President, Special Projects.

The worksheet calculator used in preparing estimates of emissions reductions for the proposal and reporting is provided by NSAQMD, entitled "Emissions Reduction and Cost Effectiveness Spreadsheet Calculator", and may be found on page T2 of the Technical Appendix.

Emission Benefits/Cost Effectiveness

Applicant: Hansen Bros. Enterprises

Emission Benefits:

Project life:	5 years
Annual ROG reductions:	0.86 lbs/year
Annual NOx reductions:	20.94 lbs/year
Total project ROG reductions:	4.30 lbs. over 5-year period
Total project NOx reductions:	104.70 lbs. over 5-year period

Annual Vehicle Miles Traveled (VMT) 2017:	9609 miles/year.
Total project cost:	$118,425.00
AB 2766 cost: 27%	$25,000.00

Total project cost-effectiveness:	$33.78 $/lb
AB 2766 cost-effectiveness:	$9.12 $/lb.

The above information is based on the work sheet calculators provided by NSAQMD.

Please see the work sheets in the technical appendix entitled All Project Types page T1, and Carl Moyer Program Clean Air Reporting Log page T2.

Work Statement

Applicant: Hansen Bros. Enterprises

January 7, 2019. Review final quotes on new 2018 class 8 truck. Order the truck from the lowest responsible dealer offering the complete package as specified.

+- June 3, 2019: Take delivery on the new class 8 truck.

+- June 4, 2019: Start removing the mixer unit from the 1998 truck, rebuild the unit and install the mixer unit on the new 2018 truck.

+- June 5, 2019: Log the beginning odometer readings on work orders so the tracking of miles driven, can be recorded in our computer Equipment Management module for Emission Cost-Effectiveness

Calculations.

+- June 6,2019: Send a Monitoring Report and a Claim for Payment, along with a copy of the truck dealer's invoice to NSAQMD.

+- June 10,2019: Install decals stating: **"This low emissions truck was partially funded by NSAQMD utilizing DMV Surcharge Funds to improve local air quality".**

Each January from January 2020 to January 2023 send a Monitoring report to NSAQMD.

June 10, 2024 send Final Report to NSAQMD to close out the contract.

Funding Request/Breakdown of Cost

Applicant: Hansen Bros. Enterprises

Task	AB 2766 Cost	HBE Cost	Total Cost
Purchase new 2018 Class 8 Truck:	$25,000.00	$93,425.00	$118,425.00
Grand Total Direct Cost*:	$25,000.00	$93,425.00	$118,425.00

*Planning, monitoring, management, miscellaneous, removal/reinstall mixer units, operating and administrative costs will be paid separately by Hansen Bros. Enterprises and are not included in the "Grand Total Direct Cost."

This project will be monitored using our computer Equipment Management module for tracking annual mileage on each truck and using the Emission Reduction and Cost Effectiveness, located in the Technical Appendix, page T2, provided by NSAQMD, and the ARB methods to find the cost effectiveness of funding this air quality project.

Schedule of Deliverables/Monitoring Program

Applicant: Hansen Bros. Enterprises

For the purposes of this project, we will be collecting data (mileage) for the 2018 truck, partially funded by AB2766 funds, upon delivery and at the end of the 2nd and 4th quarters. The 4th quarter reading is also the annual mileage reading. This mileage data will be plugged into the Emission Reduction and Cost Effectiveness Spreadsheet Calculator, by NSAQMD, to determine the cost-effectiveness of funding this air quality project.

Schedule:

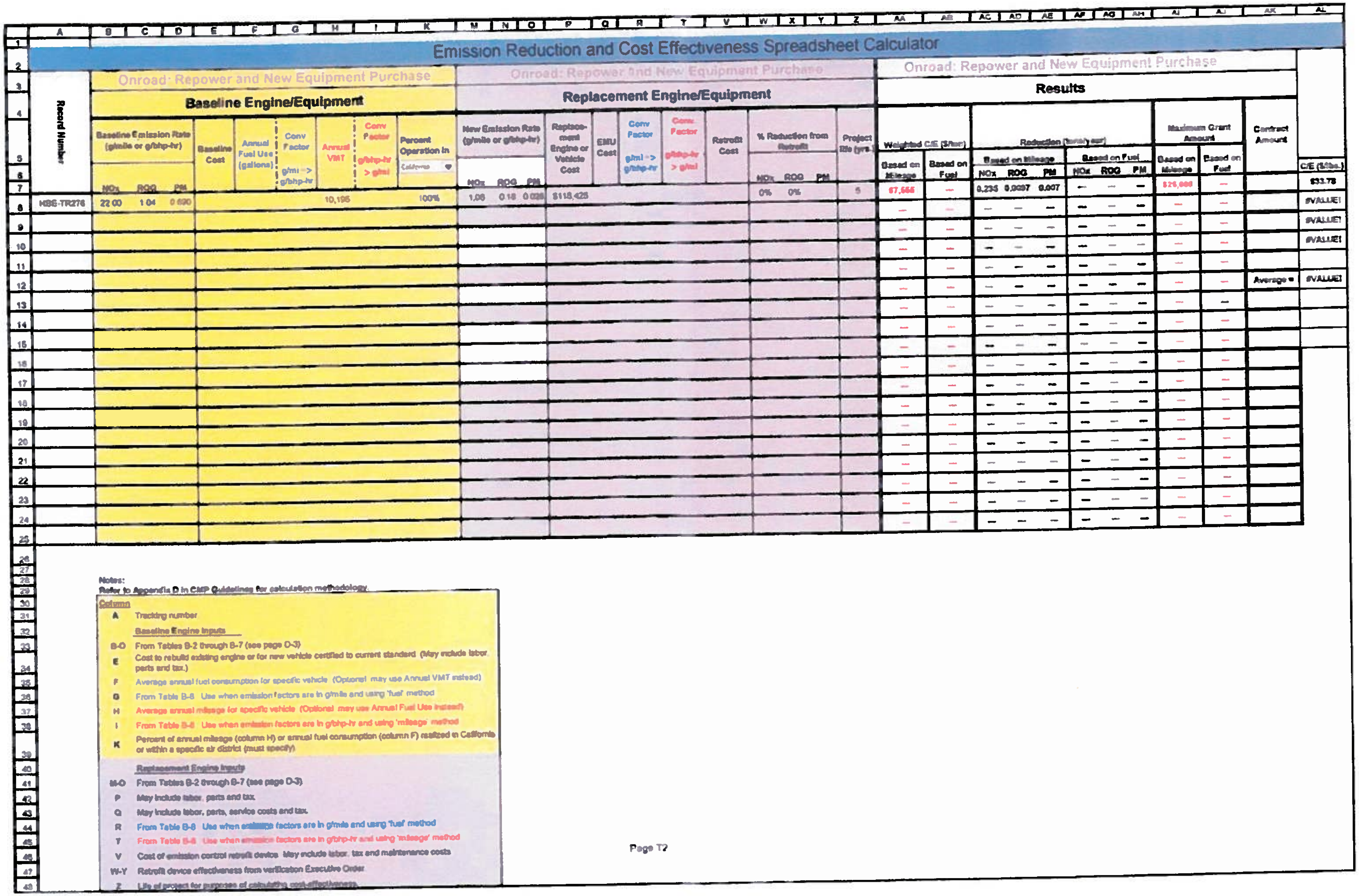
+- June 5, 2019: Log the beginning odometer readings for the new 2018 truck on work orders so the tracking of miles driven can be recorded in our computer Equipment Management module for Emission Cost-Effectiveness Calculations and project Monitoring Reports.

+- June 6, 2019: Provide NSAQMD with the first Monitoring Report to establish the beginning miles.

Each January from January 2020 to January 2023 provide NSAQMD with the annual Monitoring Report.

January 2024: Provide NSAQMD with the Final Report.

Truck #	Description	OD reading	Total miles	OD reading	Total miles	OD reading	Total miles	OD reading	Total miles
		2014	2014	2015	2015	2016	2016	2017	2017
TR276	TRUCK, Mixer, 10 c.y., Pete	188594	5751	193609	5015	204390	10781	213999	9609



	A	B	C	D	E	F	G	H	I	K	M	N	O	P	Q	R	T	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL
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2		Emission Reduction and Cost Effectiveness Spreadsheet Calculator																																
3	Record Number	Onroad: Repower and New Equipment Purchase									Onroad: Repower and New Equipment Purchase												Onroad: Repower and New Equipment Purchase											
4		Baseline Engine/Equipment									Replacement Engine/Equipment												Results											
5		Baseline Emission Rate (g/mile or g/bhp-hr)			Baseline Cost	Annual Fuel Use (gallons)	Conv Factor g/mi -> g/bhp-hr	Annual VMT	Conv Factor g/bhp-hr > g/mi	Percent Operation in California	New Emission Rate (g/mile or g/bhp-hr)			Replacement Engine or Vehicle Cost	EMU Cost	Conv Factor g/mi -> g/bhp-hr	Conv Factor g/bhp-hr > g/mi	Retrofit Cost	% Reduction from Retrofit			Project life (yrs.)	Weighted C/E ($/ton)		Reduction (tons/year)						Maximum Grant Amount		Contract Amount	
6																							Based on Mileage	Based on Fuel	Based on Mileage			Based on Fuel			Based on Mileage	Based on Fuel		C/E ($/lbs.)
7		NOx	ROG	PM							NOx	ROG	PM						NOx	ROG	PM				NOx	ROG	PM	NOx	ROG	PM				
8	HBS-TR276	22.00	1.04	0.690				10,195		100%	1.06	0.18	0.028	$118,425					0%	0%		5	67,666	—	0.235	0.0097	0.007	—	—	—	$26,000	—		$33.78
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Notes:

Refer to Appendix D in CMP Guidelines for calculation methodology.

Column
A Tracking number

Baseline Engine Inputs
B-D From Tables B-2 through B-7 (see page D-3)
E Cost to rebuild existing engine or for new vehicle certified to current standard (May include labor, parts and tax.)
F Average annual fuel consumption for specific vehicle (Optional: may use Annual VMT instead)
G From Table B-8. Use when emission factors are in g/mile and using 'fuel' method
H Average annual mileage for specific vehicle (Optional: may use Annual Fuel Use instead)
I From Table B-8. Use when emission factors are in g/bhp-hr and using 'mileage' method
K Percent of annual mileage (column H) or annual fuel consumption (column F) realized in California or within a specific air district (must specify)

Replacement Engine Inputs
M-O From Tables B-2 through B-7 (see page D-3)
P May include labor, parts and tax.
Q May include labor, parts, service costs and tax.
R From Table B-8. Use when emission factors are in g/mile and using 'fuel' method
T From Table B-8. Use when emission factors are in g/bhp-hr and using 'mileage' method
V Cost of emission control retrofit device. May include labor, tax and maintenance costs
W-Y Retrofit device effectiveness from verification Executive Order
Z Life of project for purposes of calculating cost-effectiveness

EXHIBIT SUMMARY SHEET

Proposing Entity (include other participating entities): Tahoe Truckee Unified School District

Contact Person: Tony Lavezzo

Address: 12485 Joerger Dr., Truckee, CA 96161

Phone #: (530) 550-0776 **FAX #: (530) 550-0739** **EMAIL: tlavezzo@ttusd.org**

Total Project Budget:

	AB 2766 Funds	Co-Funding	Total Project Costs
Capital Costs	$ 165,000.00	$ 20,000.00	$ 198,711.07
Operating Costs	$ 0	$ 0	$ 0
TOTAL	**$ 165,000.00**	**$ 23,766.03**	**$ 188,766.03**

Type of Project: (check one)

___ Quantifiable Project

X Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide **X**

Describe the Implementation Area for the Project (e.g. city, county, region): Bus will be operated in the Town of Truckee, Nevada County and the surrounding area.

Estimated Emission Reductions:

A. Emission Reductions (lbs. /yr.)

Reactive Organic Gases 723.00 Nitrogen Oxides 2372.38 PM_{10} 53.97

B. Vehicle Miles Traveled (VMT) Reduced 0

Single Occupancy Vehicle Trips Reduced 0

C. Number of people reached per day through public education _____

Cost-effectiveness: **$ 4.19 per pound (AB 2766 Funds Only)**

Brief Project Description:
Replace one older school bus with a new bus that employs a NOx and PM emission control system.

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: Tahoe Truckee Unified School District

Please complete and attach this checklist with your application.

- [x] Exhibit Summary Sheet - page 1
- [x] Request for Proposal Contents Checklist - page 2
- [x] Authorization Letter/Resolution - page 3
- [x] Project Description - page 4
- [x] Project Organization/Background - page 5
- [x] Emissions Benefits/Cost-Effectiveness - page 6
- [x] Work Statement - page 9
- [x] Funding Request/Breakdown of Cost – page 9
- [x] Schedule of Deliverables/Monitoring - page 10
- [x] All Pages Numbered
- [x] Three Copies Of Proposal Plus One Original

(CHECK ONE ONLY)

- [ ] Quantifiable Project

- OR -

- [x] Reduced Emission Vehicles Project

TAHOE*TRUCKEE
UNIFIED SCHOOL DISTRICT
PATHWAYS TO POSSIBILITIES AND STUDENT SUCCESS

District Office
Robert J. Leri, Ed.D.
Superintendent
Chief Learning Officer
11603 Donner Pass Rd
Truckee, CA 96161-4953
P (530) 582-2500
F (530) 582-7606
www.ttusd.org

Elementary Schools
Donner Trail Elementary
Glenshire Elementary
Kings Beach Elementary
Tahoe Lake Elementary
Truckee Elementary

Middle Schools
Alder Creek Middle
North Tahoe School 5-8

High Schools
Cold Stream Alternative
North Tahoe High
Sierra High
Tahoe Truckee High

July 13, 2018

Northern Sierra Air Quality Management District
200 Litton Drive, Ste 320
Grass Valley, CA 95945

Dear Northern Sierra Air Quality Management District:

The following individual(s) are authorized to submit a proposal on Behalf of Tahoe Truckee Unified School District:

Project Managers for Proposal:
Nanette Rondeau
Director of Transportation
12485 Joerger Drive
Truckee, CA 96161
(530) 550-0745 nrondeau@ttusd.org

Tony Lavezzo
Fleet Manager
12485 Joerger Drive
Truckee, CA 96161
(530) 550-0763 or (530) 550-0745 tlavezzo@ttusd.org

Authorized Signees of Proposal:
Todd Rivera
Executive Director of Business Services
11603 Donner Pass Road
Truckee, CA 96161
(530) 582-2541 trivera@ttusd.org

Robert J. Leri, Ed.D.
Superintendent Chief Learning Officer
11603 Donner Pass Road
Truckee, CA 96161
(530) 582-2550 rleri@ttusd.org

Signature: _____ Date: July 13, 2018
Robert J. Leri, Ed.D.
Superintendent Chief Learning Officer

Thank you!

Project Description

The objective of the Low NOx School Bus Replacement project is to replace an older diesel vehicle with a newer vehicle that has a NOx and PM emission control device. The older diesel vehicle, like the one outlined in the project, can only be retrofitted for the control of PM emissions not NOx. NOx is harmful atmospheric pollutant known for contributing to smog and acid rain. The only way to reduce the NOx created by the vehicle in question is to replace it with a new vehicle that will employ NOx controlling technology.

This project would take a 1999 diesel school bus off of the road and replace it with a 2018 diesel school bus that would employ the latest NOx and PM control strategies. The new 78 passenger diesel school bus will exceed 2010 NOx control requirements for heavy duty diesel vehicles. With the replacement of the older school bus it would lower the NOx and PM emissions created in the region. This would ensure less exposure to children at school sites and less exposure to residents throughout the community.

Project Organization/Background

Tahoe Truckee Unified School District (TTUSD):

The Tahoe Truckee Unified School District Transportation Department provides transportation to 3,000 students covering over 400,000 miles a year. The fleet of 35 vehicles operates from Kingvale on Donner Summit to Hirschdale on Highway 80 towards Reno, from Tahoma on the Westshore of Lake Tahoe to Prosser on the North end of Highway 89.

The District is actively working towards reducing the impact of diesel emissions within the Tahoe Truckee School District community. Buses are replaced with the newest, cleanest, diesel technology when district funds are available, or the district applies for grants when funds are not available. In the past, TTUSD has been awarded funding for the replacement of four old buses with new buses. For the buses that did not qualify for replacement, TTUSD has been awarded funding for PM controlling retrofits that do not control NOx. The next step for a cleaner fleet is to replace the older buses with new buses that employ NOx controlling SCR technology.

This proposal is to replace one school bus with a new school bus that will employ the latest NOx and PM emissions control technology. TTUSD will purchase the bus through BusWest. Below is information on BusWest, the company we have selected.

BusWest:

Buswest is a transportation dealer-distributor serving the education, government, public sector, commercial and private fleet markets with a broad portfolio of bus solutions. BusWest Specializes in Thomas Built Buses (TBB) and offer a full range of new and used buses. From the largest to the smallest, wheelchair access/ADA compliant and more. All BusWest school buses are rigorously tested to make sure they meet or exceed all Federal and State safety standards. BusWest is part of the Velocity Vehicle Group and has multiple sales and service locations serving California, Arizona, Nevada, and Hawaii.

ACCOUNTING:

BusWest will provide a single invoice for the vehicle, taxes, and any other fees or options. The invoice will be recorded through the normal Tahoe Truckee Unified School District accounting management system, as required. Grant funds will be received by TTUSD in a onetime lump sum payment and put towards the total cost of the purchase. The remaining balance will be paid by TTUSD.

Emissions Benefits/Cost Effectiveness

Under this proposal, one school bus will be replaced with a new diesel school bus that will employ the latest NOx and PM control strategies. This system will provide a very substantial drop in NOx emissions. The calculations for these reductions are listed below. In addition to NOx reductions, the system on the new buses will lower PM emissions by over 85 percent. This is critical to the drivers, students, and communities in which the buses operate because currently no NOx emission control strategy available for the bus must be replaced.

Due to the lower speeds of school bus routes the ***Methods to Find the Cost-Effectiveness of Funding Air Quality Projects -- 2005 Edition table 1: Diesel Bus Emissions Factors*** do not give accurate emissions factors. The following calculations will be based on the California Executive Order for the vehicle to be replaced and the new vehicle. The information below includes both engines and the Executive Order will be attached in the technical appendices:

1999 Thomas Westcoast-ER
EO: A-13-125
EPA Engine Family: **XCPXH0442HRK**
Horsepower: **300 bhp**
PM: **0.10 g/bhp-hr**
NMHC (ROG): **1.3 g/bhp-hr**
NOx: **4.0 g/bhp-hr**

2018 Bluebird T3RE Bus
EO: G-14-012
EPA Engine Family: **JCEXH0540LAT**
Horsepower: **300 bhp**
PM: **0.02 g/bhp-hr**
NMHC (ROG): **.21 g/bhp-hr**
NOx: **.30 g/bhp-hr**

Engine hours:
Engine hours are captured from our Zonar GPS tracking system that is installed on all TTUSD's vehicles. Vehicles are put on set routes so that mileage and engine hours do not deviate from year to year.

Asset	First Power On	Last Power Off	Ending Hour Meter	Elapsed Hours
11	6/22/2017 6:24am	6/22/2018 1:38pm	19918.7	945.9

Emissions Benefits/Cost Effectiveness *(continued)*

Vehicle to be Replaced Emissions Calculation
Annual NMHC (ROG) in Grams = (NMHC x Annual Hours) x Horsepower
368,940g = (1.3 x 946) x 300
Annual NMHC (ROG) in Grams ÷ Grams to Lbs. conversion factor = Annual NMHC in lbs.
368,940g ÷ 454 = 812.64 lbs.

Annual NOx in Grams = (NOx x Annual Hours) x Horsepower
1,135,200g = (4 x 946) x 300
Annual NOx in Grams ÷ Grams to Lbs. conversion factor = Annual NOx in Lbs.
1,135,200g ÷ 454 = 2500.44 lbs.

Annual PM in Grams = (PM x Annual Hours) x Horsepower
28,380g = (.10 x 946) x 300
Annual PM in Grams ÷ Grams to Lbs. conversion factor = Annual PM in Lbs.
28,380g ÷ 454 = 62.51 lbs.

Total Emissions Per Year Old Vehicle	
ROG:	812.64 lbs.
NOx:	2500.44 lbs.
PM:	62.51 lbs.
Total Emissions:	3375.59 lbs.

New Vehicle Emissions Calculation
Annual NMHC (ROG) in Grams = (NMHC x Annual Hours) x Horsepower
59,598g = (.21 x 946) x 300
Annual NMHC (ROG) in Grams ÷ Grams to Lbs. conversion factor = Annual NMHC in lbs.
59,598g ÷ 454 = 89.64lbs.

Annual NOx in Grams = (NOx x Annual Hours) x Horsepower
85,140g = (.30 x 946) x 300
Annual NOx in Grams ÷ Grams to Lbs. conversion factor = Annual NOx in lbs.
85,140g ÷ 454 = 128.06 lbs.

Annual PM in Grams = (PM x Annual Hours) x Horsepower
5,676g = (.02 x 946) x 300
Annual PM in Grams ÷ Grams to Lbs. conversion factor = Annual PM in lbs.
5,676g ÷ 454 = 12.50lbs.

Total Emissions Per Year New Vehicle	
ROG:	89.64lbs.
NOx:	128.06 lbs.
PM:	12.50lbs.
Total Emissions:	226.24 lbs.

Emissions Benefits/Cost Effectiveness *(continued)*

Total Emissions Reductions Per Year	
ROG:	723.00 lbs.
NOx:	2372.38 lbs.
PM:	53.97 lbs.
Total Emissions Reduction:	3149.35 lbs.

Cost Effectiveness/ Capitol Recovery

Project Cost	
AB 2766 Funds:	$165,000.00
TTUSD Contribution:	$23,766.03
Total cost of Project:	$188,766.03

To calculate the cost effectiveness of this project the amount of funds requested will be multiplied by the capitol recovery factor of .08 and then divided by the total amount of pollutants reduced. The capitol recovery factor of .08 is used because the minimum useful life of the vehicle to be purchased it 15 years.

(AB 2766 Funds x Capitol recovery Factor) ÷ Total emission reduction = Cost per Pound
(165,000.00 x .08) ÷ 3149.35 = 4.19

Totals

AB Funds Requested: **$165,000.00**

Emissions Reduced: **3149.35 lbs.**

Cost Per Pound Reduced: **$4.19**

Work Statement

January 2019 Upon grant execution, TTUSD will begin the process to have the purchase of a new bus approved by TTUSD school board.

February 2019 Place order with BusWest for one new school bus.

July 2019 On or before July 2018, take delivery of one new school bus. Once delivered TTUSD will invite NSAQMD to inspect the bus and a decal stating the funding source for the bus will be applied at this time.

Funding Request/Breakdown of Cost

Tahoe Truckee Unified School District is requesting $165,000.00 in AB 2766 funds to purchase a new 2018 school bus. The specifications and quote are attached in the technical appendices. This project does not have any administrative costs. The following table shows a breakdown of cost and cofounding sources.

Project Cost	
AB 2766 Funds:	$165,000.00
TTUSD Contribution:	$23,766.03
Total cost of Project:	$188,766.03

Schedule of Deliverables/Monitoring Program

Vehicle Delivery
On or before July 2019 TTUSD will take delivery of one new school bus. Once delivered TTUSD will invite NSAQMD to inspect the bus and a decal stating the funding source for the bus will be applied at this time. Any delay in delivery of the new school bus will be communicated to NSAQMD via email.

Monitoring Program
Upon delivery of the new bus TTUSD will start to track the annual operating hours and mileage. TTUSD will report the mileage, hours and overall performance of the unit after the first, fifth and seventh year of operation. TTUSD will operate the new vehicle, at minimum, the same number of hours and miles as the vehicle it was intended to replace. Reports of operating data will be available at the request of the NSAQMD.

Technical Appendices

Table of Contents **Page**

Annual hour meter report for bus to be replaced

7/3/2018 Zonar Systems GPS Engine Hours Report

GPS Engine Hours Summary Report - From: 6/22/2017 To: 6/22/2018

Filters

Note: This Report Requires GPS Firmware Version 2.94 or Newer

Row 1 to 1 of 1

Page 1

ASSET	FIRST POWER ON	LAST POWER OFF	ZONE	ENDING HOUR METER	ELAPSED HOURS
11	06/22/2017 06:24:27	06/22/2018 13:38:33	Combined Totals	19918.7	945.9

BUSWEST

Thomas BUILT BUSES

Bid Form

March 2, 2018

Customer Order No.: SBBH 06242

Honorable Board of Trustees
Tahoe Truckee Unified School District
12485 Joerger Dr
Truckee, Ca 96161

BusWest respectfully submits for your consideration our bid to supply 1 complete 84 passenger school bus as follows:

Chassis Make: Thomas	**Model:** CHSY	**Model Year:** 2019
Wheelbase: 277"	**Engine:** Cummins ISL	**Horsepower:** 300
Body Make: Thomas	**Model:** Saf-T-Liner HDX	**Capacity:** 84
Transmission: Allison 3000 PTS R		
Delivery Date: 180-210 Days after receipt of order		**Subject to Prior Sale:** No

Cash Purchase Price (each):	$ 174,305.00
Doc Fee:	$ 65.00
Sales Tax @: 8.250%	$ 14,385.53
CA. Tire Tax: $1.75 ea. tire	$ 10.50
Total	**$ 188,766.03**

We have examined the detailed minimum specifications established by the school board and guarantee this bid to be in accordance thereto. Above price includes all dealer prep., pre-delivery service, necessary lettering, F.O.B. school district and documentation fee.

Brian Hedman, Sales Representative

Quote is good for thirty (30) days

Quote No.: 341093

Carson – Main Headquarters
21107 South Chico St. Carson, CA. 90745
Sales Toll Free. (800) 458-9199 Main. (310) 984-3900 Fax. (310) 984-3996
Parts Toll Free. (866) 707-7800 Fax. (310) 984-3994
www.buswest.com

Sacramento
210 North East St., Woodland, CA 95776
Main. (424) 210-3020
Fresno
4337 North Goldenstate Ste#101, Fresno, CA 93600
Main: (559) 277-0118

CALIFORNIA	CUMMINS INC	EXECUTIVE ORDER A-021-0889-2 Model On-Road Heavy Duty Engines Page 1 of 3 Pages

Pursuant to the authority vested in California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2, and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-14-012,

IT IS ORDERED AND RESOLVED: The engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	ENGINE SIZE (L)	FUEL TYPE [1]	[illegible]	INTENDED SERVICE CLASS [3]	ECS & SPECIAL FEATURES [4]	OBD STATE [5]
2019	[illegible]	9.0	[illegible]	[illegible]	LB / LB-Hybrid	DOI, TC, CAC, ECM, EGR, OC, PTOX, SCR-U, AMOX	OBD(B)

PRIMARY TAILPIPE EMISSIONS CONTROL [6]	ADDITIONAL IDLE EMISSIONS CONTROL [7]
Exempt	N/A

Displacement	Engine Models / Power etc
9.0	L9 330 / 4768 FR95102 (310) L9 280 / 4768 FR95103 (285) (Non-hybrid models) L9 330H / 5239 FR95778 (310) (Hybrid model with stop / start feature) L9 330H / SC95778 (310) (Hybrid model without stop / start feature)

[illegible]

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.8, 2) the SET and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures), and 3) the corresponding certification levels, for this engine family. "Diesel" CO, SET and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [ ] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.8 are in parentheses ( ).) [8]

In g/bhp-hr	NOx		NMHC+NOx		CO		PM		HCHO	
	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET
STD	0.14	0.14	[illegible]	[illegible]	*	*	15.5	15.5	0.01	0.01	*	*
Cert	0.003	0.002	[illegible]	[illegible]	*	*	0.2	0.00	0.000	0.000	*	*
MFF	[illegible]		[illegible]		[illegible]		[illegible]		0.02		*	

[illegible]

BE IT FURTHER RESOLVED: The manufacturer has demonstrated compliance with the Greenhouse Gas Emission Standards as specified in Title 13 CCR 1956.8 and the incorporated "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy Duty Diesel-Engines and Vehicles" (HDDE Test Procedures) adopted Dec. 12, 2002, as last amended Sep. 1, 2017 using the 2014 model year National Heavy-Duty Engine and Vehicle Greenhouse Gas Program as specified in Section 1035.108 of the HDDE Test Procedures. The manufacturer has submitted the required information and therefore has met the criteria necessary to receive a California Executive Order based on the Environmental Protection Agency's Certificate of Conformity for the above listed engine family.

	EPA CERTIFICATE OF CONFORMITY		PRIMARY INTENDED SERVICE CLASS	
	[illegible]		[illegible]	
In g/bhp-hr	[illegible]	[illegible]	[illegible]	[illegible]
NMHC	[illegible]	-	0.12	0.12
CO	[illegible]	-	*	*
PM	[illegible]	-	0.10	0.12
CO2	[illegible]	-	[illegible]	[illegible]

[illegible]

CALIFORNIA	CUMMINS INC	EXECUTIVE ORDER A-021-0686-2 New On Road Heavy-Duty Engines Page 2 of 2 Pages

BE IT FURTHER RESOLVED: Certification to the FEL(s) / FCL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) / FCL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1971.1 (on-board diagnostic, full or partial compliance) and 13 CCR 2035 et seq. (emission control warranty).

BE IT FURTHER RESOLVED: The listed engine models are conditionally certified in accordance with 13 CCR Section 1971.1(k) (deficiency and fines provisions for certification of malfunction and diagnostic system) because the heavy duty on-board diagnostic (HD OBD) system of the listed engine models has been determined to have sixteen deficiencies. The listed engine models are approved subject to the manufacturer paying a fine of $500 per engine for the third through sixteenth deficiencies in the listed engine family that is produced and delivered for sale in California. On a quarterly basis, the manufacturer shall submit to California Air Resources Board reports of the number of engines produced and delivered for sale in California and pay the full fine owed for that quarter pursuant to this conditional certification. Payment shall be made payable to the State Treasurer for deposit in the Air Pollution Control Fund no later than thirty (30) days after the end of each calendar quarter during the 2018 model-year production period. Failure to pay the quarterly fine, in full, in the time provided, may be cause for the Executive Officer to rescind this conditional certification effective from the start of the quarter in question, in which case all engines covered under this conditional certification for that quarter and all future quarters would be deemed uncertified and subject to a civil penalty of up to $5000 per engine pursuant to HSC Section 43154.

BE IT FURTHER RESOLVED: The Cummins hybrid engine ratings listed on this Executive Order may only be used with new on-road Allison hybrid system models hybrid system models and BAE hybrid system models whose on-board diagnostic system have been approved as compatible.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

This Executive Order hereby supersedes Executive Order A-021-0686-1 dated January 24, 2018.

Executed at El Monte, California on this 22 day of February 2018.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Old Vehicle Engine Executive Order

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-182

Relating to Certification of New Heavy-Duty Engines and Vehicles

CATERPILLAR, INC.

Pursuant to the authority vested in the Air Resources Board at Sections 43100, 43101, and 43102 of the Health and Safety Code and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order I-85-5, and

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and Caterpillar, Inc. and any modifications to the Settlement Agreement:

IT IS ORDERED AND RESOLVED: That the following 1999 model-year Caterpillar, Inc. diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle-weight-rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

Engine Family	Displacement Liters	Displacement Cubic Inches	Exhaust Emission Control Systems and Special Features
1CPXH0142HXB	7.1	442	Turbocharger Charge Air Cooler Electronic Control Module

The engine models and codes are listed on attachments.

BE IT ORDERED AND RESOLVED: That the following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour under the Federal Test Procedure ("FTP") for Heavy-Duty Diesel Engines (Title 13, California Code of Regulations, Section 1956.8):

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
'FTP'	1.3	15.5	4.0	0.10

BE IT FURTHER RESOLVED: That pursuant to the Settlement Agreement and any modifications thereof, the aforementioned engine family is also subject to the following emission standards, in grams per brake horsepower-hour, under the EURO III cycle in the Settlement Agreement, and a "Not-to-Exceed" nitrogen oxides emission standard of 7.0 grams per brake horsepower-hour:

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
'EURO III'	1.5	11.0	6.0	0.10

CATERPILLAR, INC.

EXECUTIVE ORDER A-13-125
Page 8 of 21

BE IT FURTHER RESOLVED: That the following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"FTP"	0.6	1.2	3.8	0.08
"EURO III"	0.24	1.0	4.8	0.07

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2035 et seq.).

BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

1. The Settlement Agreement is in effect.
2. The Settlement Agreement has not become null and void under Settlement Agreement Paragraph 166
3. Caterpillar, Inc. is in compliance with all applicable certification requirements of the Settlement Agreement.
4. Caterpillar, Inc. generates and submits emissions data that demonstrate compliance with the terms of the Settlement Agreement for supplemental data points pursuant to paragraph 1.1 of Appendix C of the Settlement Agreement. The emissions data must be submitted by February 15, 2000, unless ARB extends this date for good cause.

Engines manufactured after July 31, 1996 are not covered under this Executive Order.

Engines certified under this Executive Order must conform to all applicable California emission regulations and to all applicable terms and conditions of the Settlement Agreement.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 20th day of December 1999.

[illegible] B. Summerfield, Chief
Mobile Source Operations Division

EXHIBIT SUMMARY SHEET

Proposing Entity (include other participating entities): Town of Truckee
Participating Entities: Placer County and Tahoe Truckee Airport District

Contact Person: Kelly Beede, Administrative Analyst II, Town of Truckee

Address: 10183 Truckee Airport Road, Truckee, CA 96161

Phone #: 530-582-2489 **FAX #:**530-550-2343 **EMAIL:** kbeede@townoftruckee.com

Total Project Budget:

	AB 2766 Funds	Co-Funding	Total Project Costs
Capital Costs	$_____	$_____	$_____
Operating Costs	$67,696	$598,590	$666,286
TOTAL	**$67,696**	**$598,590**	**$666,286**

Type of Project: (check one)

_X_ Quantifiable Project

___ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide ___

Describe the Implementation Area for the Project (e.g. city, county, region):
Hwy 267 serving the communities of North Lake Tahoe and Truckee

Estimated Emission Reductions:

A. Emission Reductions (lbs/yr)

Reactive Organic Gases: 265 Nitrogen Oxides: 252 PM_{10}: 256

B. Vehicle Miles Traveled (VMT) Reduced: 590,917

Single Occupancy Vehicle Trips Reduced: 26,860

C. Number of people reached per day through public education: 144

Cost-effectiveness: **$30.93 per pound** (AB 2766 Funds Only) (based on funding request of $67,696)

Brief Project Description: The Town of Truckee, Placer County and Truckee Tahoe Airport District have partnered to provide transit service on a year-round basis on Highway 267 between Kings Beach (North Lake Tahoe) and Truckee beginning Spring 2016. Prior to this partnership, the service was provided only during the winter months, leaving 250 days without transit service between these regions. Typically, new transit services take three years to build steady ridership. It is estimated that by the end of the three years annual ridership will be 35,957 one-way passenger trips. Based on ridership experienced in the first and second years (26,356 and 31,768 one-way passenger trips, respectively), the new service is on-track to realize (or exceed) the overall estimated annual ridership of 35,957 one-way passenger trips, which equates to the reduction of 590,917 vehicle miles traveled and 26,860 one-way vehicle trip reductions. The total estimated annual cost of providing the additional 250 days of service in FY 2018/19 is $666,286 in the third year. The estimated cost of the additional service operated within Truckee is $270,783 with Placer County funding 50 percent of the Truckee service area cost, and the Town and Airport District sharing equally the remaining cost of $135,392, or $67,696 each in year three. It should be noted that the Town of Truckee received a grant from NSAQMD to support this project in the first and second years of the new service. This funding request of $67,696 will support service provided in year three.

Grant funding will be used as the Town's contribution to provide year-round service on Highway 267. The additional 250 days of service will provide a lifeline between the North Lake Tahoe and Truckee communities increasing access to social and medical services, employment opportunities, educational resources, enrichment and wellness programs, and to basic necessities such as grocery centers.

Placer County and the Airport District are providing co-funding ($598,590) for the increased transit service on Highway 267. Along with the Town's contribution, the co-funding supports all the aspects of operating the additional 250 days of service including fuel and maintenance of the buses, and costs associated with drivers and dispatch.

This project will significantly reduce vehicle miles traveled in private automobiles helping to reduce the carbon footprint in our region and improve air quality.

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: Town of Truckee

Please complete and attach this checklist with your application.

X	Exhibit Summary Sheet - pages 1-2
X	Request for Proposal Contents Checklist - page 3
X	Authorization Letter/Resolution – page 4
X	Project Description - page 5
X	Project Organization/Background - pages 5-6
X	Emissions Benefits/Cost-Effectiveness - page 6
X	Work Statement - page 6
X	Funding Request/Breakdown of Cost - page 7
X	Schedule of Deliverables/Monitoring - pages 7-8
X	EXHIBITS – Exhibit 1 Resolution 2018-58, pgs 9-10; Exhibit 2 Letter of Support from Nevada County Transportation Commission, pg 11; Exhibit 3 Technical Appendix Emissions Calculations, pgs 12-13; Exhibit 4 Town/Placer County Agreement, pgs 14-18
X	All Pages Numbered
X	Proposal, Emailed per Instructions to joe@myairdistrict.com

(CHECK ONE ONLY)

X	Quantifiable Project

Authorization Letter/Resolution

The Town Council of the Town of Truckee (Town) adopted Resolution 2018-58 on August 14, 2018, authorizing the submittal of this grant proposal to the Northern Sierra Air Quality Management District (District) and naming the Public Works Director/Town Engineer as the authority to execute the grant agreement and all matters relating to the agreement between Town and District (see Exhibit 1).

Town of Truckee
10183 Truckee Airport Road
Truckee, CA 96161-3306
Kelly Beede, Administrative Analyst II
(530-582-7700)

Authorized Signing Authority:
Daniel P. Wilkins
Public Works Director/Town Engineer
530-582-2902
dwilkins@townoftruckee.com

Program Manager/Primary Contact:
Kelly Beede
Administrative Analyst II
530-582-2489
kbeede@townoftruckee.com

Project Description

The Town of Truckee seeks funding for year three to support the operation of year-round transit service on Highway 267 between Kings Beach (North Lake Tahoe) and Truckee in partnership with Placer County and Truckee Tahoe Airport District. Prior to this partnership, transit service along this important regional corridor had been limited to winter only (115 days). The Annual Unmet Transit Needs Hearings identified that the lack of year-round service on Hwy 267 caused barriers to the transit dependent population in accessing employment opportunities, medical and social services, and educational/enrichment programs.

This project models the Town's commitment to environmental conservation and public health. Providing this important regional link between North Lake Tahoe and Truckee to residents and visitors on a year-round basis promotes reducing local and regional vehicle emissions through improvements to transportation systems management and operations. This service will help mitigate congestion and provide a significant regional public benefit through improved air quality and reduced greenhouse gas production.

This project will be operated by Placer County under an agreement with the Town and Airport District. Transit service will be provided generally between the hours of 7:00 A.M. and 6:00 P.M. on hourly headways serving the communities of North Lake Tahoe and Truckee. Educational materials and schedules will be developed and distributed throughout the communities and to regional employers and social service agencies, among others. This collateral will include information that the service is grant funded in part by the Northern Sierra Air Quality Management District.

Placer County owns and maintains a fleet of 15 ADA accessible buses (both CNG and diesel) that can carry up to 70 passengers (35 seated and 35 standing) at their facility located on Cabin Creek Road in Truckee. Placer County has existing software to track ridership and will be providing required reports related to performance of the service.

Project Organization/Background

The Town of Truckee is an incorporated Municipality that is creating the best future for the community at the highest level of public service – every day. The Town accomplishes its goals in partnership with the Town's citizens and fellow governmental agencies. Since incorporation in 1993, the Town has been providing quality transit service to the community for 25 years.

In rural areas such as ours, collaboration and partnerships are key to the success of our regional programs and services. Placer County is the agency that will be operating the transit service under this project. Placer County has over 25 years of experience operating public transit in our region and is fully staffed to operate services under this project.

The Town has partnered with Placer County on other services including year-round service on Hwy 89 between Tahoe City and Truckee, and to operate regional airport shuttles, and winter skier shuttles.

Technical capabilities for preparing estimates of emissions reduction for both the proposal and reporting include estimated and actual vehicles miles traveled by the transit buses. Placer County will track and report this information to the Town, which is industry standard and part of our operating contract.

The Town's accounting software is a fund accounting system and capable of tracking costs by funding source and project task and would include a balance budget sheet where expenditures would be logged according to task. The project would be assigned an object code to track expenditures of the grant and project over the life of the transit program funded by the grant.

Emissions Benefits/Cost Effectiveness

Using the *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects – May 2013 Edition* to estimate vehicle reductions it was determined that the following vehicle emissions would be reduced through implementation of this project (per the calculations and assumptions in the Technical Appendix included in Exhibit 2): ROG – 265 pounds per year, NOx – 252 pounds per year and PM10 – 256 pounds per year. The overall cost effectiveness of this project based on the above factors is $30.93 per pound of reduced emissions. This project will reduce vehicle miles traveled by 590,917 with the single occupancy vehicle trips reduction of 26,860 and serving 35,957 one-way passenger trips annually.

This project complies with the goals of AB 2766 as it will reduce air pollution from emissions of motor vehicles and reduce vehicle miles traveled in personal vehicles, all of which improves the air quality and public health in our region.

Work Statement

Task 1 – Operating Contract: The Town and Placer County have developed and entered into an agreement to provide transit service as described for this project (see Exhibit 3). If selected, funding for the project will support FY 2018/19 service. As part of the operating contract, Placer County will provide the Town with quarterly reports that include at a minimum vehicle miles traveled, revenue service hours, and ridership data. The Town will utilize the reports from Placer County to comply with the reporting requirements under this grant.

Task 2 – Public Outreach: If selected, the Town will include information of the grant funding of this project on our website, in transit marketing materials, and on the transit schedules acknowledging the project funding source of the NSAQMD.

Task 3 – Analysis and Reporting: Per the reporting requirements, Town will provide quarterly reports, a monitoring report, and a final report detailing the successes of the project.

Funding Request/Breakdown of Cost

Task	Task Description	AB 2766 Grant Funds	Co-Funding
Task 1: Operating Contract	The operating contract with Placer County includes operational staff of dispatch and bus drivers and fuel and maintenance of the buses.	$67,696	$598,590 by Placer County & Truckee Tahoe Airport District
Task 2: Public Outreach	Development, printing and distribution of marketing materials, transit schedules and brochures that will include sponsorship of NSAQMD for the service.	$0.00	$12,500 by Town of Truckee
Task 3: Analysis & Reporting	a. Analyze program results and prepare reports. b. Submit final report to NSAQMD.	$0.00	In-kind – Town of Truckee
Administrative Costs:	Project Management and Reporting	$0.00	In-kind – Town of Truckee

Schedule of Deliverables/Monitor Program

Task	Deliverables	Estimated Date of Delivery
Task 1	Operating Contract with Placer County to provide transit service related to the Project	Town entered into agreement with Placer County August 2015
Task 2	Develop, print and distribute educational and marketing materials and transit schedules/ brochures	FY 2018/19; ongoing throughout the year; transit schedules change seasonally
Task 3	Final Report and Project Analysis	December 2019

Placer County will collect data that will be provided to the Town for reporting purposes. Specifically, performance data that will be collected to evaluate the effectiveness of the project both in terms of transit industry standards and reduced vehicle emissions and miles traveled include:

Daily ridership	Operating cost per revenue hour
Annual service miles	Operating cost per revenue mile
Farebox recovery ratio	Passenger trips per revenue hour
Operating cost per passenger	Passenger trips per revenue mile

This data will be used to determine one-way vehicle trip reductions and reductions in vehicle miles traveled, which will be used to calculate the cost-effectiveness of the project.

This project will improve the quality of our region through reduced vehicle miles traveled and reduced air pollution from vehicle emissions. Additionally, the quality of life of the transit dependent population will be improved as this project provides enhanced and expanded public transportation thereby breaking down the barriers that exist and allowing integration into the workforce and participation in society.

EXHIBIT 1

TOWN OF TRUCKEE
California

RESOLUTION 2018-58

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF TRUCKEE AUTHORIZING THE SUBMITTAL OF A FUNDING REQUEST FOR AB 2766 DEPARTMENT OF MOTOR VEHICLE SURCHARGE FUNDING THROUGH THE NORTHERN SIERRA AIR QUALITY MANAGEMENT DISTRICT TO SUPPORT HIGHWAY 267 YEAR-ROUND TRANSIT SERVICE

WHEREAS, the people of the State of California have enacted the Department of Motor Vehicle Surcharge Program that provides funds to local government agencies, private sector businesses, non-profit agencies and research institutions to reduce air pollution from motor vehicles and for related planning, monitoring, enforcement and technical studies necessary to implement the California Clean Air Act; and

WHEREAS, the Northern Sierra Air Quality Management District, a unified air pollution control district formed pursuant to California Health and Safety Code section 40150, et seq. (the "District") has been delegated the responsibility for the administration of the program within the District, setting up necessary procedures for eligible participants, or their designees under the programs; and

WHEREAS, the Northern Sierra Air Quality Management District has released the 2018-2019 AB 2766 DMV Surcharge Fund Program Request for Proposals; and

WHEREAS, the Town of Truckee, Placer County, and Truckee Tahoe Airport District have partnered to provide transit service on a year-round basis on Highway 267 increasing service from 115 days to 365 days per year; and

WHEREAS, the Town of Truckee and Placer County entered into an agreement on August 11, 2015 whereby Placer County would operate the year-round service on Highway 267 and the Town of Truckee would contribute an estimated $67,696 annually for a three-year project pilot period; and

WHEREAS, the Town of Truckee desires to submit a proposal to the District requesting $67,696 for operations and marketing to fund year-round service on Hwy 267 in fiscal year 2018/19 in partnership with Placer County and the Truckee Tahoe Airport District.

******

NOW, THEREFORE, THE TOWN COUNCIL OF THE TOWN OF TRUCKEE DOES RESOLVE, DETERMINE, AND ORDER AS FOLLOWS:

1. Authorizes the submittal of a grant application/proposal to the Northern Sierra Air Quality Management District requesting funding in the sum of $67,696 for operations and marketing to fund year-round service on Hwy 267 in partnership with Placer County and the Truckee Tahoe Airport District.

2. That the Public Works Director/Town Engineer or designee is authorized to execute and file applications and proposals on behalf of the Town of Truckee to aid in the funding of year-

round service on Highway 267 through the Northern Sierra Air Quality Management District 2018-2019 AB 2766 Request for Proposals.

3. That the Public Works Director/Town Engineer or designee is authorized to execute and file all certification of assurances, contracts, agreements or any other document required by the Northern Sierra Air Quality Management District.

4. That the Public Works Director/Town Engineer or designee is authorized to provide additional information as the Northern Sierra Air Quality Management District may require in connection with the application for AB 2766 projects.

5. That the Public Works Director/Town Engineer or designee is authorized to execute agreements on behalf of the Town of Truckee with the Northern Sierra Air Quality Management District in connection with the application for AB 2766 projects.

6. That the Public Works Director/Town Engineer or designee is authorized to approve and submit request for reimbursement of funds to the Northern Sierra Air Quality Management District for AB 2766 projects.

7. That the proposing entity is the Town of Truckee located at 10183 Truckee Airport Road, Truckee, California 96161; phone number 530-582-7700; contact person Kelly Beede.

The foregoing Resolution was introduced by Council Member Flora, seconded by Council Member Goodwin, at a Regular Meeting of the Truckee Town Council, held on the 14th day of August, 2018, and adopted by the following vote:

AYES: **Council Member Flora, Council Member Goodwin, Council Member Abrams, Vice Mayor Tirman, and Mayor Wallace Dee.**

NOES: **none.**

ABSENT: **none.**

Carolyn Wallace Dee, Mayor

ATTEST:

Judy Price, MMC, Town Clerk

I hereby certify that this is a true and correct copy of the original document which is on file at Town Hall.

Judy Price, Town Clerk

EXHIBIT 2

NEVADA • COUNTY • TRANSPORTATION
NCTC
COMMISSION

Grass Valley • Nevada City Nevada County • Truckee

File 1430.5

August 23, 2018

Joseph Fish, Deputy Air Pollution Control Officer
Northern Sierra Air Quality Management District
200 Litton Drive, Suite 320, Grass Valley, CA 95945

SUBJECT: Letter of Support for the Town of Truckee's AB 2766 Grant Application

Dear Mr. Fish,

The Nevada County Transportation Commission (NCTC), as the Regional Transportation Planning Agency for Nevada County, supports the Town of Truckee's AB 2766 grant application for operation funding assistance for the continued provision of public transportation in the State Route (SR) 267 corridor between the Town of Truckee and Kings Beach (North Lake Tahoe).

The Town of Truckee's role of providing regional and coordination of interregional transit and paratransit services plays an important role in achieving the Nevada County Regional Transportation Plan (RTP) goal of creating and maintaining a comprehensive, multi-modal transportation system to serve the needs of the County. The policies of the RTP also support transportation projects that minimize vehicle emissions while providing cost effective movement of people.

Year-round public transit service in the SR 267 corridor provides a lifeline connection between the North Lake Tahoe and Truckee communities, increasing access to social and medical services, employment opportunities, educational resources, enrichment and wellness programs, and access to other basic necessities. Based on ridership experienced in the first and second years (26,356 and 31,768 one-way passenger trips, respectively), the new service is on-track to meet the 3-year forecasted reduction of 590,917 vehicle miles traveled and a reduction of 26,860 one-way passenger trips.

The Town of Truckee coordinates with NCTC, County of Nevada, County of Placer, Truckee Tahoe Airport District, Truckee Tahoe Transportation Management Association, Community Collaborative of Truckee Tahoe, Sierra Senior Services, Choices Transitional Services, the ski resort operators in the Donner Summit, and other non-profit organizations in the area to identify and address transit needs in the region. This coordination improves the efficiency of fixed route and paratransit services in the region. The Town of Truckee is an essential partner in creating a balanced regional transportation system, and NCTC supports the Town of Truckee's AB 2766 grant application.

If you have any questions, please feel free to contact me at (530) 265-3202.

Sincerely,

Daniel B. Landon
Executive Director

101 Providence Mine Road, Suite 102, Nevada City, California 95959 • (530) 265-3202 • Fax (530) 265-3260
E-mail: nctc@nccn.net • Web Site: www.nctc.ca.gov

EXHIBIT 3

Town of Truckee
Emissions Benefits/Cost Effectiveness Supporting Documentation

Where:

D = Days of operation per year
R = Average Daily Ridership Increase
A = Adjustment factor to account for transit dependency
L = Length (miles) of average auto trip reduced
AA = Adjustment factor to account for auto trips used to access transit services
LL = Length (miles) of average trip

Documentation of Factors Utilized

- For the days of operation (D), 250 days of service where utilized.
- For the average daily ridership increase (R), it was assumed that it would increase by 144 per day.
- For the adjustment factor to account for transit dependency (A), the default factor of 0.83 for the project was utilized.
- The length (miles) of average auto trip reduced (L) was determined by calculating the project route miles on Hwy 267 between Kings Beach and Truckee; 20 miles one-way.
- For the adjustment factor to account for auto trips used to access transit service (AA), the factor of 0.1 was utilized.
- For the length (miles) of average trip for auto access to transit (LL), for auto trip access to and from transit 5 miles away a factor of 2 was utilized.

The following emissions factors were utilized from the *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, May 2013, Tables 2 and 3; source:* California Air Resources Board.

1-5 yrs	Auto VMT	Commute Trip Ends	Avg Trip Ends	Bus VMT
ROG	0.191	0.764	0.584	0.117
Nox	0.217	0.303	0.298	0.200
PM10	0.218	0.015	0.008	0.117

CRF Factor = .3535

Formulas	**Units**
Annual Auto Trips Reduced = [(D)*(R)*(A)]*[1 - (AA)]	trips/year
Annual Auto VMT Reduced = [(D)*(R)*(A)]*[(L) - (AA)*(LL)]	miles/year
Annual Emission Reductions (ROG, NOx, and PM10) =	lbs/year

[(Annual Auto Trips Reduced)*(Auto Trip End Factor)
+ (Annual Auto VMT Reduced)*(Auto VMT Factor)
- (Bus VMT)*(Bus VMT factor)]/454

Capital Recovery Factor (CRF) = $\frac{(1+i)^n (i)}{(1+i)^n - 1}$

where: i = discount rate (Assume 3 percent)
n = project life

Cost-Effectiveness of
Funding Dollars = (CRF * Funding) / (ROG + NOx + PM10) — dollars/lb

EXHIBIT 4

12778 A

CONTRACT #: 12778

AGREEMENT REGARDING TRANSIT SERVICE TO THE TOWN OF TRUCKEE BY THE TAHOE AREA REGIONAL TRANSIT SYSTEM HIGHWAY 89 & HIGHWAY 267 ROUTES Amendment #1

THIS Agreement, hereinafter referred to as "AGREEMENT", is made and entered into this 11th day of August, 2015, by and between the County of Placer, hereinafter referred to as "COUNTY," and the Town of Truckee, hereinafter referred to as "TRUCKEE."

RECITALS:

WHEREAS, COUNTY operates a public transit system known as Tahoe Area Regional Transit (TART) that benefits both residents and visitors within the Town of Truckee and Placer County;

WHEREAS, TRUCKEE and COUNTY have a need for transporting people to and from the North Shore area of Lake Tahoe and along the Highway 89 and 267 corridors;

WHEREAS, it would be redundant, non-economical, and not in the public interest, at this time, for TRUCKEE to duplicate said service;

WHEREAS, an agreement between COUNTY and TRUCKEE, to have COUNTY provide such service would be the most economical and in the public interest;

WHEREAS, COUNTY has sufficient funding sources from parties other than TRUCKEE to support operation of TART service in the Highway 89 and Highway 267 corridors as provided for in this agreement;

NOW, THEREFORE, in consideration of the mutual promises and agreements herein contained, it is agreed by and between the parties hereto as follows:

I. GENERAL PROVISIONS. This AGREEMENT is for public transportation and transportation services of TART rendered by COUNTY.

A. COUNTY agrees to operate regularly scheduled fixed route service between Truckee and Tahoe City on Highway 89, and Truckee and Crystal Bay on Highway 267 as provided in the attached Exhibit A.

B. COUNTY agrees to add year-round regularly scheduled fixed route service between Truckee and Crystal Bay on Highway 267 as provided in the attached Exhibit A, with the approval of Amendment #1 of this agreement, for a three year pilot period beginning during the 2015-16 Fiscal Year. Implementation will occur on a schedule mutually agreed upon by representatives of COUNTY and TRUCKEE. This added service is contingent upon approval of operating budgets by both COUNTY and TRUCKEE.

C. COUNTY reserves the right to contract out either part or all of the service to a qualified transit operations contractor.

II. PAYMENT.

A. Operating Costs. In exchange for services identified in Section I above, TRUCKEE agrees to pay COUNTY according to the amounts detailed in the attached Exhibit B.

B. TRUCKEE is a funding agent only, and is not responsible for operations, maintenance, or any costs in excess of the amount set forth above for the proposed service.

C. Notice of Annualized Costs. At least One Hundred and Twenty (120) days prior to the beginning of each fiscal year, COUNTY shall provide TRUCKEE with revised Exhibits A through B for the subsequent fiscal year. Charges will be adjusted based on the most recent available Data of Table 1. Consumer Price Index for All Urban Consumers, Transportation, as published by the United States Department of Labor, Bureau of Labor Statistics. If COUNTY requests charges in excess of the CPI adjustment must be mutually agreed upon by COUNTY and TOWN and COUNTY must provide adequate documentation of such charges. Charges for expanded services will be based upon a formula provided by COUNTY and detailed in Exhibit B.

D. Billing to TRUCKEE. COUNTY will submit an invoice or invoices to TRUCKEE prior to March 1 each year for the current fiscal year. TRUCKEE will pay COUNTY within 30 days of receipt of an invoice. COUNTY will quarterly provide TRUCKEE with data regarding ridership, fare box revenue and route information.

E. Changes in Service Levels. Either party may request modifications in the service levels at any time. If the parties agree to implement the suggested modifications, the implementation date shall be no later than 90 days after such agreement. COUNTY shall provide an amended Exhibit B to show agreed upon service modifications.

F. COUNTY agrees that service fares and fees shall be the same for TRUCKEE residents as for residents of Placer County. Passengers from Truckee will be able to transfer free of charge to other TART route buses.

G. COUNTY shall be solely credited with fares collected.

III. HOLD HARMLESS.

A. Neither TRUCKEE nor any officer, employee or volunteer thereof is responsible for any damage or liability occurring by reason of anything done or omitted to be done by COUNTY under or in connection with any work, authority or jurisdiction delegated to COUNTY under this MOU. It is understood and agreed that, pursuant to Government Code Section 895.4, COUNTY shall fully defend, indemnify and save harmless TRUCKEE, its officers, employees and volunteers from all claims, suits, or actions of every nature, kind and description brought for or on account of injury (as defined in Government Code Section 810.8) occurring by reason of anything done or omitted to be done by COUNTY under or in connection with any work, activity or jurisdiction delegated to COUNTY under this MOU.

B. Neither COUNTY nor any officer, employee or volunteer thereof is responsible for any damage or liability occurring by reason of anything done or omitted to be done by TRUCKEE under or in connection with any work, activity or jurisdiction delegated to TRUCKEE under this MOU. It is understood and agreed that, pursuant to Government Code Section 895.4, TRUCKEE shall fully defend, indemnify and save harmless COUNTY, its officers, employees and volunteers from all claims, suits, or actions of every nature, kind and description brought for or on account of injury (as defined in Government Code Section 810.8) occurring by reason of anything done or omitted to be done by TRUCKEE under or in connection with any work, authority or jurisdiction delegated to TRUCKEE under this MOU.

IV. TERMINATION.

A. This AGREEMENT becomes effective May 28, 2009, and Amendment #1 becomes effective July 1, 2015 after its approval by both parties. This AGREEMENT shall be automatically renewed each July 1, unless either of the parties to the AGREEMENT serves in writing, the other party a notice of termination. COUNTY shall have up to 180 days from notice of termination to discontinue service. Upon termination, TRUCKEE shall pay COUNTY for any and all services already rendered under this AGREEMENT within 10 working days.

B. Written notice shall be served by US Mail or In person to the following:

PLACER COUNTY:

Will Garner
Department of Public Works
Transportation Division
3091 County Center Drive, Suite 220
Auburn, CA 95603

TOWN OF TRUCKEE:

Alex Terrazas
Assistant to the Town Manager
10183 Truckee Airport Road
Truckee, CA 96161-3306

IN WITNESS THEREOF, the parties hereto have executed this agreement the day and year first above written.

TOWN OF TRUCKEE

By: _____
Mayor, Town of Truckee

Date: 8/11/15

ATTEST:

By: _____
Town Clerk

Date: 8-14-15

RECOMMENDED FOR APPROVAL

By: _____
Tony Lashbrook,
Truckee Town Manager

Date: 4.3.15

APPROVED AS TO FORM

By: _____
Town Attorney

Date: 8/3/15

"COUNTY"
STATE OF CALIFORNIA
COUNTY OF PLACER

By: _____
Chair, Board of Supervisors

Date: 6/2/15

ATTEST:

By: _____
Clerk of the Board

Date: 6 2 2015

RECOMMENDED FOR APPROVAL

By: _____
Ken Grehm, Placer County
Public Works Director

Date: 7/8/15

APPROVED AS TO FORM

By: _____
County Counsel

Date: 5/26/2015

Exhibit B, Continued

TART Highway 267 Between Truckee and Crystal Bay - Summer, Fall & Spring

	FY 15/16
Highway 267 Route Statistics & Cost	**+Year Round**
Buses in Service	2.00
Service Days	250.00
Revenue Vehicle Service Miles per Day	408.10
Revenue Vehicle Service Hours per Day	21.67
Total Revenue Vehicle Service Miles	102,025
Total Revenue Vehicle Service Hours	5,417
Miles Per Hour	18.84
Cost per Day	$ 2,487
Total Cost	$ 621,683

Offsetting Revenues	
Fares	$ 62,000
FTA 5311	$ -
TOT Funding for Summer Service	$ 45,000
Remaining Balance	$ 514,683

Allocation of Costs To Town of Truckee	
Revenue Vehicle Service Miles Per Day - Northstar to Truckee	234.30
Revenue Vehicle Service Hours Per Day - Northstar to Truckee	10.63
Total Revenue Vehicle Service Miles - Northstar to Truckee	58,575
Total Revenue Vehicle Service Hours - Northstar to Truckee	2,658
Cost per Day	$ 1,108
Total Cost	$ 277,074
Offsetting Revenue Allocated to Route Segment	$ 27,632
Remaining Balance	$ 249,442

50% to Town of Truckee	$ 124,721
Subtotal Charged to Town of Truckee	**$ 62,360**
Subtotal Charged to Truckee Tahoe Airport District	**$ 62,360**

Subtotal Charged to the Town of Truckee for Summer, 2015 Only	**$ 17,000**
Subtotal Charged to the TTAD for Summer, 2015 Only	**$ 17,000**

NSAQMD AB 2766 DMV Surcharge Fund – Town of Truckee electric vehicle and charging stations

EXHIBIT SUMMARY SHEET

Proposing Entity: Town of Truckee

Contact Person: Nicholas Martin, Administrative Analyst II

Address: 10183 Truckee Airport Rd., Truckee, CA 96161

Phone: (530) 582-2910 **Fax:** (530) 582-7710 **Email:** nmartin@townoftruckee.com

Total Project Budget: $89,948

	AB 2766 Funds	Co-Funding	Total Project Costs
Capital Costs	$39,948	$50,000	$89,948
Operating Costs	$0	$0	$0
TOTAL	**$39,948**	**$50,000**	**$89,948**

Type of Project:

_X_ Quantifiable Project

___ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide ___

The electric vehicle will be used for Town business travel within and outside of the district, and charging stations will be for general public use that may be for travel within and outside of the district.

Estimated Emission Reductions:

A. Emission Reductions (lbs/yr)

Reactive Organic Gases _340.0_ Nitrogen Oxides _374.4_ PM_{10} _106.6_

B. Vehicle Miles Traveled (VMT) Reduced _65,370.8_

Single Occupancy Vehicle Trips Reduced ___11_____

C. Number of people reached per day through public education _1,000__

Cost-effectiveness: **$64.55 per pound (AB 2766 Funds Only)**

Brief Project Description: The Town of Truckee intends to help reduce vehicle emissions throughout the community and establish itself as a leader in electric vehicle adoption by the purchase of a plug-in electric vehicle for use in the Town pooled vehicle fleet and three electric vehicle charging stations installed at Town Hall, with one of the charging stations to be dedicated for use by the Town electric vehicle and two dedicated for free public charging.

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: _Town of Truckee_____

Please complete and attach this checklist with your application.

X	Exhibit Summary Sheet - page _1_____
X	Request for Proposal Contents Checklist - page _2_____
X	Authorization Letter/Resolution - page __3-6____
X	Project Description - page __7____
X	Project Organization/Background - page __7____
X	Emissions Benefits/Cost-Effectiveness - page __8____ (w/ attached technical appendix)
X	Work Statement - page __8-9____
X	Funding Request/Breakdown of Cost - page __9-10____
X	Schedule of Deliverables/Monitoring - page __10____
X	All Pages Numbered
X	Proposal, One Original
X	(CHECK ONE ONLY) Quantifiable Project
	- OR -
	Reduced Emission Vehicles Project

C. Authorization Letter/Resolution:

On August 14, 2018 the Town Council of the Town of Truckee adopted resolution 2018-59 authorizing the submittal of a proposal to the NSAQMD AB 2766 DMV Surcharge Fund Program and designating the Town Manager, Jeff Loux, as the authority to execute a grant agreement, and committing the Town's $50,000 matching funds to the project (Resolution 2018-59 and letter from Mayor are below.)

Town of Truckee
10183 Truckee Airport Rd.
Truckee, CA 96161

Authorized Signing Authority:
Jeff Loux, Town Manager
(530) 582-7700
jloux@townoftruckee.com

Primary Contact:
Nicholas Martin, Administrative Analyst II
(530) 582-2910
nmartin@townoftruckee.com

TOWN OF TRUCKEE
California

RESOLUTION 2018-59

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF TRUCKEE APPROVING THE APPLICATION FOR NORTHERN SIERRA AIR QUALITY MANAGEMENT DISTRICT AB 2766 DMV SURCHARGE FUNDS FOR THE PURCHASE OF AN ELECTRIC VEHICLE AND THREE CHARGING STATIONS AT TOWN HALL

WHEREAS, the AB 2766 DMV surcharge program is funded from statewide vehicle license fees and administered by local air quality districts, such as the Northern Sierra Air Quality Management District; and

WHEREAS, the AB 2766 funds are intended to implement activities or purchase equipment that reduces air pollution from vehicles; and

WHEREAS, the Town Council of the Town of Truckee adopted Resolution 2017-58 on November 28th, 2017 establishing 100% renewable electricity and energy goals for the community, which includes the transportation sector; and

WHEREAS, the Town Council of the Town of Truckee established 2018 Council goals which included the goal to "Continue to 'Keep Truckee Green,' with a strong emphasis on environmental sustainability initiatives and strategies, renewable energy, recycling, reuse, resource conservation and ecological restoration."; and

WHEREAS, the Town of Truckee is proposing to submit an application for the amount of $39,948 to purchase one electric vehicle to be added to the Town Hall pooled vehicle fleet and three electric vehicle charging stations to be installed at Town Hall; and

WHEREAS, the total project cost is estimated at $89,948 and the competitiveness of the grant application is increased with the addition of matching funds; and

WHEREAS, if selected for funding, the Town of Truckee will contribute $50,000 cash to match the $39,948 funding request; and

WHEREAS, if selected for funding the Town of Truckee will enter into an agreement with the Northern Sierra Air Quality Management District to effectuate the purchase of the new electric vehicle and three charging stations.

* * * * * *

NOW, THEREFORE BE IT RESOLVED, the Town Council of the Town of Truckee:

1. Authorizes the Town Manager or designee to conduct all negotiations, execute and submit documents including applications, agreements, certifications of assurances, amendments, reimbursements, reports, or any other documents required related to the aforementioned grant program.

2. Commits the aforementioned local match funding of $50,000 if the grant application is successful.

The foregoing Resolution was introduced by Council Member Flora, seconded by Council Member Goodwin, at a Regular Meeting of the Truckee Town Council, held on the 14th day of August, 2018, and adopted by the following vote:

AYES: **Council Member Flora, Council Member Goodwin, Council Member Abrams, Vice Mayor Tirman and Mayor Wallace Dee.**

NOES: **none.**

ABSENT: **none.**

Carolyn Wallace Dee, Mayor

ATTEST:

Judy Price, MMC, Town Clerk

I hereby certify that this is a true and correct copy of the original document which is on file at Town Hall.

Judy Price, Town Clerk

August 14, 2018

Joseph Fish
NSAQMD District Headquarters
200 Litton Drive, Suite 320
Grass Valley, CA 95945

Re: Town of Truckee Application for NSAQMD Funds for Electric Vehicle and Charging Stations

Dear Mr. Fish,

The intent of this letter is to demonstrate the Town of Truckee Town Council's strong support for the Town's application to the Northern Sierra Air Quality Management District AB-2766 grant funds to purchase an electric vehicle and charging stations for use at Town Hall. The electric vehicle will be added to the Town pooled fleet for use by Town employees and the charging stations will be available for free public charging.

This project complements the Town's 100% renewable goals and positions the Town as a leader in reducing vehicle emissions and promoting electric vehicle use throughout the community. The Town has previously been awarded several AB-2766 awards which has enabled us to purchase two hybrid vehicles and to make significant improvements to our regional transit system. The Town remains committed to the program's objectives and is thankful for the program's past support. We continue to strive to make substantial improvements to the Town's sustainability efforts and believe this program will help us achieve that objective. The Council designates Jeff Loux, Town Manager, as the main contact person.

Carolyn Wallace Dee
Mayor

10183 Truckee Airport Road, Truckee, CA 96161-3306
www.townoftruckee.com
Administration: 530-582-7700 / Fax: 530-582-7710 / *email: truckee@townoftruckee.com*
Community Development: 530-582-7820 / Fax: 530-582-7889 / *email: cdd@townoftruckee.com*
Animal Services 530-582-7830 / Fax: 530-582-1103 / *email: animalservices@townoftruckee.com*
Police Department: 530-550-2323 / Fax: 530-582-7771 / *email: policedepartment@townoftruckee.com*

D. Project Description:

NSAQMD funds would be used to match Town funds to purchase a plug-in electric vehicle for the Town fleet and install three electric vehicle charging stations at Truckee Town Hall. The electric vehicle would serve as a pooled vehicle for use by Town staff for local and regional round trips and replace current, less fuel-efficient pooled vehicles. Two of the charging stations would be available for free public charging while the third would be reserved for the new Town electric vehicle. Town staff would work with local vendors to purchase a plug-in electric vehicle (Hyundai Ioniq electric or equivalent); purchase EV charging stations (ChargePoint or equivalent) to be installed near the front, public facing entrance at Town Hall in three existing parking stalls (one ADA compliant and van-accessible); install a new dedicated meter for the charging stations; and conduct outreach and education activities promoting electric vehicles and free public charging at Town Hall.

This project would reduce vehicle emissions produced by Town pooled vehicles and promote electric vehicle use in the community. The Town of Truckee is committed to sustainability, and one of Town Council's 2018 goals is to "continue to Keep Truckee Green, with a strong emphasis on environmental sustainability initiatives and strategies, renewable energy, recycling, reuse, resource conservation and ecological restoration." This project aligns with the spirit of Council's goal and models the Town's lead-by-example approach to reduce greenhouse gas emissions within the community.

E. Project Organization/Background:

The Town of Truckee is a California municipality located in the Sierra Nevada Mountains of California, just west of the Nevada state line. The incorporated boundaries are nearly 34 square miles and range in elevation from 5500 feet at the Town's eastern boundary to 7500 feet in the northwestern corner. Truckee is working hard to retain its vitality as a residential and economic hub for the region while its popularity as a vacation destination and second home community continues to grow. The Town operates a vehicle fleet comprised of snow removal equipment, police vehicles, and general pooled vehicles used between various Town departments. The Town employs a staff of full-time mechanics capable of providing ongoing service and maintenance to all fleet vehicles.

The Town has previously been awarded two NSAQMD AB 2766 funded grants for the purchase of two hybrid Ford Escape vehicles to be added to the pooled vehicle fleet. These vehicles are still in service and provide emissions reduction benefits by replacing other less fuel-efficient vehicles.

The Town will work with a local automotive dealer to purchase the electric vehicle and Town staff will apply for the federal and state clean vehicle credits and rebates. The Town will contract with an electric vehicle charging station vendor to purchase and install the charging stations, with some of the more minor installation work potentially being completed by qualified Town staff in the Public Works department.

The Town facilities staff will track the mileage of the electric vehicle as well as track separately the electrical usage (by installation of a dedicated meter) of the charging stations in order to provide accurate emissions reduction estimates to NSAQMD. Town accounting staff will utilize our financial management software to track the expenditures per project task and per vendor based on funding source.

F. Emission Benefits/Cost Effectiveness:

This project is estimated to reduce 374.4 pounds of NOx emissions, 340.0 pounds of ROG emissions, and 106.6 pounds of PM10 emissions over the project lifespan. The electric vehicle for the Town fleet would travel an average of 7,614 miles per year, replacing the miles traveled by older and less efficient fleet vehicles. The electric vehicle charging stations would power an additional 57,756.8 miles of travel per year from the two public charging ports. As there is no standardized methodology for calculating emissions reductions and cost effectiveness from electric vehicle charging stations, the VMT calculation employs usage data from charging stations installed in Truckee along with projected growth of electric vehicles over the coming years based on population growth and California's electric vehicle adoption goals. A more detailed explanation of variables and assumptions can be found in the technical appendix.

The cost effectiveness of AB 2766 funding is $64.55/pound. The total cost effectiveness of the project is $159.72/pound.

G. Work Statement:

Task 1. Purchase Electric Vehicle.

a. The Town will work with a local dealer(s) to procure one (1) Hyundai Ioniq or equivalent plug-in electric vehicle. Town staff will initiate the vehicle order shortly after the January 1, 2019 project start date and will take approximately one to two months to complete the transaction. The vehicle that has been chosen is a Hyundai Ioniq and is based on significant research, notably a study by the Norwegian EV Association targeting cold weather performance of 5 electric vehicles. However, the vehicle make and model may vary based on further details resulting from dealer negotiations, but would be equivalent and provide approximately 120-150 miles range.

b. Town staff will apply for state and federal electric vehicle rebates/credits, expected to total $10,000.

c. Once the transaction is complete and vehicle has been received, Fleet Services will ready the vehicle for use in the fleet by adding any necessary paint and numbering. Further program identification and logos are outlined in task 3 below.

Task 2. Purchase and Install Electric Vehicle Charging Stations.

a. The Town plans to work with ChargePoint, or equivalent vendor, to purchase three (3) level 2 electric vehicle charging stations shortly after the January 1, 2019 start date, expecting to be completed in early summer 2019. The chargers will be initially free for the public to use, and rather than fast chargers the level 2 capacity will allow users to charge over a few hours while limiting the electricity burden to a minimum which seems appropriate for Town Hall.

b. The Town will contract for installation of the charging stations, either with the vendor supplying the charging stations or another experienced installer if needed. The installation will include all required infrastructure – wiring, 200A meter, charger pedestals, concrete work, utility connections, etc.

c. Through a negotiated contract agreement with a charging station vendor staff expects to pre-pay the first year of charging station network fees, which will provide users real-time information on charging station availability and provide the Town detailed usage data.

Task 3. Education and Outreach

a. The Town strives to be a leader on sustainability actions in the community and sees this electric vehicle as an opportunity to showcase such leadership. Once vehicle is purchased and received staff will contract for vehicle decals and logos to identify the Northern Sierra Air Quality Management District funds used to purchase the EV and charging stations, and to help attract attention to the clean air benefits of operating electric vehicles.

b. The vehicle will be prioritized for use as part of Town involvement in events and public gatherings in order to showcase the sustainability benefits of operating an electric vehicle. The vehicle will be added to the pooled vehicles calendar to maximize the number of users able to drive it, and increasing the mileage to the extent possible.

c. The publicly-available charging stations will be located at the front of Town Hall in premium parking spaces. Regular media posts (both social and print media, town website) will highlight the opportunity to charge electric vehicles while at nearby businesses, Town Hall, the airport, etc. Through the vendor-provided charging network users will be able to identify these charging stations when travelling to the area.

Task 4. Analysis and Reporting

a. Fleet Services will track mileage of the vehicle in addition to the data received through the charging stations themselves. Staff expects to have the charging station vendor provide monthly or quarterly usage data in order to track the demand for this opportunity and estimate actual emissions reductions, and staff will provide this information, if needed, as part of the quarterly financial reports, as well as the mid-way monitoring report.

b. As part of the Final Report due to NSAQMD at the end of the year staff will include actual usage statistics if available at that time, including hours of charging and mileage. Staff will also provide copies of all outreach and education materials prepared and events attended which highlighted the vehicle and/or charging stations.

H. Funding Request/Breakdown of Cost:

Task	Task Description	AB 2766 Funds	Town Funding
Task 1: Purchase Electric Vehicle	a. Purchase electric vehicle (less rebates)	$4,950	$17,500
Task 2: Purchase and Install Charging Stations	a. Purchase charging stations b. Install charging stations	$13,498 $21,500	$31,000
Task 3: Education and Outreach	a. Apply vehicle decals and charging station signage b. Develop and distribute educational materials		$1,000 $500
Task 4: Analysis and Reporting	a. Emissions tracking and reporting b. Submit reports to NSAQMD		In-kind
Administrative Costs	a. Project management and equipment purchase b. Education and outreach material creation		In-kind

	c. Reporting		
	Funding Source Subtotal:	**$39,948**	**$50,000**
	Total Project Budget:	**$89,948**	

Operating Costs: The Town of Truckee will be responsible for on-going vehicle maintenance and all operating costs including maintenance, labor and any additional public educational materials printed and all other associated costs for project.

Alternate Funding Levels: This project is designed as a comprehensive package that includes an all-electric vehicle and charging stations for the purpose of taking a leadership approach to zero emissions transportation in a rural region not typically associated with being an early adopter of electric vehicle technology. However, if NSAQMD deems the total project not effective, at the request of NSAQMD the Town is willing to consider splitting the project into its component parts of electric vehicle or charging stations.

I. Schedule of Deliverables/Monitoring Program:

Task	Deliverable	Estimated Delivery Date
Task 1: Purchase Electric Vehicle	Purchase and Delivery of Vehicle	March 1, 2019
Task 2: Purchase and Install Charging Stations	Purchase Electric Vehicle Charging Stations Contract with Installation Company to Install Charging Stations	March 1, 2019 June 1, 2019
Task 3: Education and Outreach	Apply Town Identification Decal and NSAQMD grant funding recognition Design Educational Brochure Translate Brochure to Spanish Post Brochure on Website and Print for Events/Attend events	April 1, 2019 May 1, 2019 June 1, 2019 July 1, 2019
Task 4: Analysis and Reporting	Submit First Quarterly Report Submit Second Quarterly Report Submit Monitoring Report Submit Third Quarterly Report Submit Fourth Quarterly/Final Report	March 31, 2019 June 30, 2019 July 31, 2019 September 30, 2019 December 31, 201

Technical Appendix

Electric Vehicle

Vehicle Miles Traveled: The Town pooled electric vehicle will travel an average of 7,614 miles per year, replacing the miles traveled by older and less efficient fleet vehicles. This number was derived from averaging the annual VMT of six similarly-used pooled vehicles from 2015, 2016, and 2017.

Figure 1. Average Vehicle Miles Traveled Calculations

Car	2015-2017 VMT	Average Annual VMT
Recycling-Vehicle 138	7823	2,608
Planning-Vehicle 712	8198	2732.666667
Planning-Vehicle 716	23760	7920
Planning-Vehicle 719	51581	17193.66667
Engineering Vehicle 125	7571	2523.666667
Engineering Vehicle 127	9563	3187.666667
Average		7,614

Emission Factors: Using the EMFAC Web Database, we found the emissions rates for the model years of each of the six current pooled vehicles and converted those numbers into grams per mile. We then averaged these specific emissions factors to create an average "before" emission factors for NOx, ROG, and PM10. "After" emissions factors were derived from the EMFAC Web Database's emissions rates for 2017 electric vehicles.

Figure 2. Emission Factor Calculations by Model Year

Vehicle Model Year	Emission Total tons/day (from Database)	Emission Total g/day	VMT (from Database)	Pop (from Database)	VMT/day/single vehicle	g/day/single vehicle	g/mile
2007-ROG	0.007347	6665.088195	91045.83	2359.8	38.58201119	2.824429272	0.073205859
2002-ROG	0.01831	16610.55735	62460.16	2030.9	30.75491654	8.178914447	0.265938437
2002-NOX	0.019385	17585.78123	62460.16	2030.9	30.75491654	8.659107403	0.281551972
2002-PM10	0.003349	3038.162565	62460.16	2030.9	30.75491654	1.495968568	0.048641607
2007-Nox	0.00534	4844.3679	91045.83	2359.8	38.58201119	2.052872235	0.053208015
2007-PM10	0.004515	4095.940275	91045.83	2359.8	38.58201119	1.735715008	0.044987676
2012-ROG	0.005005	4540.460925	105153.4	2213.497	47.50555343	2.051261386	0.043179402
2012-Nox	0.004885	4431.598725	105153.4	2213.497	47.50555343	2.002080294	0.042144132
2012-PM10	0.00009009	81.72829665	105153.4	2213.497	47.50555343	0.036922705	0.000777229
1998-ROG	0.023132	20985.00342	29608.58	1177.351	25.14847314	17.82391438	0.708747377
1998-Nox	0.027768	25190.71308	29608.58	1177.351	25.14847314	21.39609435	0.85079099
1998-PM10	0.001592	1444.23852	29608.58	1177.351	25.14847314	1.226684752	0.048777703
2017-Elec PM10	0.000146952	133.3130383	2979.061454	71.20035793	41.84054042	1.87236472	0.044750013
2017- Elec ROG	3.36E-06	3.050763939	2979.061454	71.20035793	41.84054042	0.042847593	0.001024069

Figure 3. Average Vehicle Miles Traveled and "Before" Emission Factors

Car	2015-2017 VMT	Average Annual VMT	Year	ROG Factor	Nox Factor	PM10 Factor
Recycling-Vehicle 138	7823	2,608	2007	0.073205859	0.053208015	0.044987676
Planning-Vehicle 712	8198	2732.666667	2002	0.265938437	0.281551972	0.048641607
Planning-Vehicle 716	23760	7920	2007	0.073205859	0.053208015	0.044987676
Planning-Vehicle 719	51581	17193.66667	2012	0.043179402	0.042144132	0.000777229
Engineering Vehicle 125	7571	2523.666667	1998	0.708747377	0.85079099	0.048777703
Engineering Vehicle 127	9563	3187.666667	2002	0.265938437	0.281551972	0.048641607
Average		7,614		0.238369229	0.260409183	0.039468916

Figure 4. Final "Before" and "After" Emission Factors

Emission Factors	Before	After
ROG Factor	0.23836923	0.001024069
Nox Factor	0.26040918	0
PM10 Factor	0.03946892	0.044750013

Cost Effectiveness: We then used the methodology from *Methods to Find the Cost-Effectiveness of Funding air Quality Projects—2005 Edition* for "On-Road Cleaner Vehicle Purchases and Repowering" to find the cost effectiveness of the electric vehicle.

Figure 5. Cost Effectiveness of Vehicle

Annual Emission Reductions		*Capital Recovery Factor*		*Cost effectiveness*	
	lbs/year	**Project Life**	**CRF**		
ROG	3.980236508	10	0.12	Cost of Car	22,450
Nox	4.367016105			$/lb	326.2019
PM10	-0.088563058				

Charging Stations

Current Usage: Because there is no standard methodology to determine the cost effectiveness of electric vehicle charging stations, we built our own. We started with usage data from three electric vehicle charging stations currently installed in Truckee and run by the Truckee Donner Public Utility District. We found both the average time a car spent at a charging station (121.4 minutes) and the average number of charging session per port per month (4.9).

Figure 6. Average Session Time at Charging Station

Charger Location	**Number of Ports**	**Avg Time/Session (minutes)**				
		2016	**2017**	**2018**	**Avg/Location**	**Avg Time/Port/Session**
PUD 1: Truckee Depot	2	80	90	200	123.3333333	61.66666667
PUD 2: Pioneer	2	235	145	55	145	72.5
PUD 3: Meadow Park	1		105	355	230	230
Average						121.3888889

Figure 7. Average Number of Sessions at Charging Station per Month

Charger Location	Avg Sessions/Month		
	2017	2018	Avg Sessions/Month/Port
PUD 1: Truckee Depot	6.65	3.88	5.265
PUD 2: Pioneer	2.7	1	1.85
PUD 3: Meadow Park	**9.8**	**5.25**	**7.525**
Average			**4.88**

Projected Usage: Since we expect electric vehicle adoption to increase over the 20-year lifespan of the charging stations, we created a projection for the number of sessions per port per month in 2040. We based our projections on California's electric vehicle adoption goals; this past January, Governor Brown signed Executive Order B-48-18 which sets a target of 5 million zero-emission vehicles in California by 2030. As the lifetime of the charging stations is 20 years, we projected this number out to 2040, by which 8.6 million electric vehicles would be on the road in the state. We used a baseline of 230,000 electric vehicles in 2016 and found California's goals call for a 1.6 annual increase in electric vehicles on the road.

This growth is very sharp and we recognize that Truckee is in a rural region. To account for these factors, we found the annualized growth rates for the populations of California and Nevada County. Since Nevada County is expected to grow at about half the rate of the state population, we projected that electric vehicle adoption would also be cut in half. Ultimately, we determined that in 2040, each charging port would see 90.3 charging session per month. We averaged the 2040 projection with the current average to get a lifetime average of 47.6 charging sessions per station per month.

Figure 8. Projected and Average Sessions per Month

	Number of Sessions/Port/Month
2017 Average	4.88
2040 Projection	90.28
2017-2040 Average	47.58

Vehicle Miles Traveled: We took the lifetime average of charging sessions per month and multiplied it by the average minutes per session to find the average minutes of charging per month (5775.7 minutes) and converted that to hours (96.3 hours). Level 2 chargers provide 25 miles of

charge per hour (according to ChargePoint) which means that each charging port will power 2,406.5 miles of travel per month. We converted this to a yearly rate for both public chargers and found that the 2 public ports will power 57,756.8 miles of travel per year.

Figure 9. Annual Vehicle Miles Traveled from 2 Chargers

Avg Time/Port/Session	Projected Avg Sessions/Port/Month
121.38888	47.58
Avg Minutes of Charging/Month	Avg Hours of Charging/Month
5775.68291	96.26138184
Miles of Charge/Hour	VMT from Charger/Month
25	2406.534546
VMT from Charger/Year	VMT from 2 Chargers/Year
28878.41455	57756.8291

Emission Factors: To determine the emission reductions from the chargers, we used the 2013 emissions factors provided in the *2013 Emission Factors* for light-duty passenger vehicles for "before" emissions factors and used the EMFAC Web Database's emissions rates for 2017 electric vehicles for "after" emissions factors.

Figure 10. "Before" and "After" Emission Factors

Emissions in gram/mile from 2013 Emissions Factors			
	ROG Factor	NO Factor	PM10 Factor
Before	0.119	0.13	0.087
After	0.001024069	0	0.044750013

Cost Effectiveness: With these variables determined, we used the cost effectiveness methodology for "On-Road Cleaner Vehicle Purchases and Repowering" to find the cost effectiveness of the charging stations.

Annual Emission Reductions		*Capital Recovery Factor*			*Cost Effectiveness*	
	lbs/year	**Project Life**		**CFR**		
ROG	15.00862598		20	0.067	Cost of Chargers	$67,498
Nox	16.53830029				$/lb	122.4847
PM10	5.374945964					

Note: Throughout the calculations to find the cost effectiveness of the charging stations, we only factored in vehicle miles traveled from two charging ports even though the Town will install three charging ports and the cost of the project is for three charging ports. This is because one of the charging ports will be dedicated to the Town fleet vehicle already included in this project; we did not want to double count the emission reductions from the vehicle. Therefore, the cost-effectiveness of the charging stations is the emissions reduced from two public charging ports spread over the cost of three charging ports.

EXHIBIT SUMMARY SHEET

Proposing Entity (include other participating entities): Nevada County Community Library

Contact Person: Yolande Wilburn, County Librarian
Address: Madelyn Helling County Library, 980 Helling Way, Nevada City, CA 95959
Phone #: (530) 265-1539 **FAX #:** **EMAIL:** Yolande.Wilburn@co.nevada.ca.us

Total Project Budget:

	AB 2766 Funds	Co-Funding	Total Project Costs
Capital Costs	$ 0.00	$ 0.00	$ 0.00
Operating Costs	$ $20,000.00	$ 6,044.00	$ 26,044.00
TOTAL	**$ 20,000.00**	**$ 6,044.00**	**$ 26,044.00**

Type of Project: (check one)

_X_ Quantifiable Project

___ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide ___

Describe the Implementation Area for the Project (e.g. city, county, region):
County of Nevada

Estimated Emission Reductions:

A. Emission Reductions (lbs/yr)

Reactive Organic Gases 510.28 Nitrogen Oxides 417.74 $PM_{2.5}$ 115.86

B. Vehicle Miles Traveled (VMT) Reduced 597,641

Single Occupancy Vehicle Trips Reduced 100,613

C. Number of people reached per day through public education: The Library will provide marketing materials for customers at each of 5 branch library circulation desks. It will also advertise the service through the Library's page on the County website, through announcements in the paper and the Friends of the Library newsletters, and on local radio shows.

Cost-effectiveness: **$ 4.22 per pound (AB 2766 Funds Only)**

Brief Project Description: Purchase e-books and downloadable audiobooks

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: **Nevada County Community Library**

Please complete and attach this checklist with your application.

- [X] Exhibit Summary Sheet – page 1
- [X] Request for Proposal Contents Checklist - page 2
- [X] Authorization Letter/Resolution - page 3
- [X] Project Description – pages 4-5
- [X] Project Organization/Background – pages 5-6
- [X] Emissions Benefits/Cost Effectiveness – pages 6-7
- [X] Work Statement – page 7
- [X] Funding Request/Breakdown of Cost – page 8
- [X] Schedule of Deliverables/Monitoring – page 8
- [X] All Pages Numbered
- [X] One Original

(CHECK ONE ONLY)

- [X] Quantifiable Project

- OR -

- [ ] Reduced Emission Vehicles Project

COUNTY OF NEVADA
COUNTY EXECUTIVE OFFICE
Eric Rood Administrative Center
950 Maidu Avenue
Nevada City, CA 95959
(530) 265-7040
Fax 265-9839
E-MAIL: ceo@co.nevada.ca.us

July 27, 2018

Northern Sierra Air Quality Management District
Joseph Fish
200 Litton Drive, Suite 320
Grass Valley, CA 95945

SUBJECT: Authorization for the Nevada County Library to submit a formal grant proposal for the use of AB 2766 DMV Surcharge funds for the 2018-2019 grant project cycle on behalf of the County of Nevada.

BACKGROUND: The Nevada County Library System is submitting a formal grant proposal to offer library patrons an enhanced collection of digital audio and eBooks. Currently, most of the County's LibraryToGo digital book collection is shared by 27 library jurisdictions. With AB2766 DMV grant funding, the Nevada County Library would purchase 300 additional digital books which would be available to Nevada County Library cardholders for check out. This will reduce trip traffic to County Libraries by offering digital books accessible on the library portion of the County website. The initial grant proposal is for the amount of $20,000.00.

AUTHORIZATION: I hereby authorize, on behalf of the Board of Supervisors of the County of Nevada, the submittal of Nevada County Library's formal grant proposal to NSAQMD for the use of AB2766 DMV Surcharge Funds for the 2019 grant period. The total grant-funding proposal is for the amount of $20,000.00.

Richard A. Haffey
County Executive Officer
County of Nevada

7/30/18
Date

Contact information for Nevada County Library System is listed below:

Nevada County Library
980 Helling Way
Nevada City, CA 95959

Contact person:

Yolande Wilburn
County Librarian
(530) 265-1539
Yolande.Wilburn@co.nevada.ca.us

D. PROJECT DESCRIPTION

Brief Project Description:

The Nevada County Community Library proposes to use $20,000 in AB 2766 grant funds to purchase approximately 300 downloadable audiobooks and e-books, reducing air pollution emissions from motor vehicles by reducing library users' trips to the five circulation branches of the County library system. This project will increase the offerings to the public on the LibraryToGo digital materials service platform, through which library patrons can download audiobooks or e-books onto their computer or other device. Users are thereby able to access library materials without ever setting foot in a library. Instead they can search and find materials, as well as check them out and return them, all from the comfort of their home or office.

Since January 2011, the Nevada County Community Library has offered a digital materials platform called LibraryToGo (a version of the platform OverDrive) available to library users. The platform and materials are collaboratively shared between twenty-eight Northern California libraries within the NorthNet Cooperative Library System. In the more than seven years since the start of the program, interest and desire for the service and materials has grown significantly. In the first month of the program, 76 items were checked out by patrons. In June 2018, 4,021 items were checked out in a single month.

Using grant funds, the Library will increase its purchase of downloadable audio books and e-books by 300 items in the 2019 calendar year. The Library purchases materials for the LibrarytoGo platform either as pooled resources with the other twenty-seven libraries or as an item that is just for Nevada County residents. Grant funds would be used for materials only for Nevada County residents, reducing wait lists on popular items and ensuring that Nevada County sees the impact of reduced emissions.

In the past, the Nevada County Community Library has received AB 2766 grants which allowed for the purchase of additional titles for the LibraryToGo platform – most recently in 2017. Increasing the amount of materials available through the web would allow more people to visit the library virtually instead of physically, thereby reducing emissions in our county.

Materials found within LibraryToGo are only available to checkout to one person at a time, much the same as a physical book would only be available to go home with one person at a time. Wait lists are created and when a digital item is 'returned,' it is then made available to the next person on the wait list. Although it offers more than 13,000 titles, our current LibraryToGo collection still does not have a large enough quantity of materials to satisfy the growing need of its many users.

The Library proposes to purchase 300 new digital books for Nevada County cardholders with this grant request. The cost for e-books and downloadable audiobooks is on the rise; e-books average $50 on LibraryToGo, while downloadable audiobooks average about $95. This is an average figure, though, as some publication companies increase the cost of new materials to as high as $85 for a new e-book. This grant request would allow the Library to purchase approximately 150 e-books and 150 downloadable audiobooks.

The Nevada County Community Library will be using the California Air Resources Board's Method for Finding Cost Effectiveness of Funding Air Quality projects – 2005 Edition, "Telecommunications" section to determine the amount of emissions that will be reduced by eliminated trips to County Libraries. The 2010 emissions factors are used in this process.

The objective of this project is to continue to provide quality library service and materials to the people of Nevada County while reducing air pollution emissions from motor vehicles. The Library believes that that objective can be obtained through the increased purchase of digital materials.

Scope of Work

The Nevada County Community Library system endeavors to provide both materials and services to the people of Nevada County in the manner and the format that they need. AB 2766 grant funding will be used to purchase an additional 300 specific downloadable audiobooks and e-books. The Nevada County Community Library will put forward in-kind funds for LibraryToGo's annual $3,431 platform continuation fee as well as $2,613 in in-kind funded staff time to purchase and catalog the digital items and to oversee, track and report on the program to the Northern Sierra Air Quality Management District.

E. PROJECT ORGANIZATION/BACKGROUND

As stated in the 2017 Nevada County Community Library Strategic Plan, the strategic vision of the Nevada County Library System is to be a center of enrichment in a strong, empowered, and literate rural community. The Library's mission is to create an inclusive environment that fosters discovery, connects our community with innovative opportunities, and inspires lifelong learning and personal growth. Three of the Library's five strategic priorities relate directly to the provision of online e-books and audiobooks: access (providing equal access to the library and its resources for all), enrichment (connecting people to information and experiences that help them to learn and grow), and technology (embracing technologies that improve our libraries and empower our community).

Established in 1972, the Nevada County Community Library system provides public library services to the entire county. Internet services are important for Nevada County library users because of our rural nature and challenging geography. The County spans 900 square miles with a population of 98,766, according to the federal 2010 census. County libraries are strategically placed throughout Nevada County and include the main branch (Madelyn Helling Library) in Nevada City, the Grass Valley Library—Royce Branch, the Truckee Library, the Doris Foley Library for Historical Research in downtown Nevada City, the Penn Valley Library in the Wildwood Shopping Center in Penn Valley, and the Bear River Library located at the Bear River High School in south Nevada County.

The five circulating branches of the Nevada County library system contain collections of varied materials including books, audio books, magazines, music CDs, DVDs, and other groups of items. During the last full fiscal year 2017-2018, there were 529,794 circulations of materials. In the

2017-2018 fiscal year, LibraryToGo circulation was 41,922 – an increase of 19% over fiscal year 2016-2017.

The Nevada County Community Library successfully managed a similar project over a previous five-year period. The Library was awarded an AB 2766 grant for the 2011-2012, 2012-2013, 2013-2014, 2014-2015, and 2015-2016 cycles to purchase additional materials for the LibraryToGo platform. The Library has experience with tracking expenses, preparing reports, designating staff to take on tasks, and promoting the program.

The County Librarian will manage this project by providing oversight and grant reporting. Library users can make suggestions for items to purchase through the LibraryToGo platform, and a Librarian will monitor these purchase requests, as well as reviews and bestseller lists, to select titles to add to the collection that is only available to Nevada County Community Library card holders. A Library Technician will add the item records to our online circulation system.

The County Librarian will provide the estimates of emissions reductions for our proposal and final report with help from the County's Information Systems Department staff and Library Technicians. The Library's VERSO catalog contains a host of statistical data regarding use of library materials from which best-guess data estimates will be gathered regarding one-way mileage trips by patrons to nearby libraries. With more library materials offered online, more library patrons will be able to "shop" the library from the comfort of home instead of driving to the library. Staff will then utilize the Air Resources Board's "Method for Finding Cost Effectiveness" database and manual to compute emissions reductions and project cost effectiveness.

The Library has an Accounting Technician who will assign a specific project code that will be used to track costs, both grant-funded and in-kind.

F. EMISSION BENEFITS/COST EFFECTIVENESS

The Nevada County Community Library grant project is seeking to reduce the number of visits by library users to any of the five circulating library locations. This reduction will occur by offering an increase in digital materials through LibraryToGo. The Library has been using the LibraryToGo platform since January 2011 and has seen a reduction in library visits for people who prefer using library materials instantaneously from their home or office. As more and more library users start supplementing their physical material needs with digital materials, or supplanting physical material needs entirely with digital, physical trips to and from the library will continue to diminish.

Emissions Summary

A summary of the 5-year project is given below:

Annual Auto VMT Reduced	597,641
Average Annual Emissions Factors (ARB 2013 from Table 3)	
Annual Emission Reduction - ROG (lbs/year)	510.28
Annual Emission Reduction - Nox (lbs/year)	417.74
Annual Emission Reduction – PM2.5(lbs/year)	115.86
Total Emissions reduction (All) (lbs/year)	1043.87
Cost-Effectiveness of Funding Dollars (dollars/lb)	$4.22

G. WORK STATEMENT

Beginning January 1, 2019 and ending December 31, 2019, grant funds will be used to:

- Purchase 300 downloadable library books from LibraryToGo/OverDrive for use by Nevada County Community Library patrons. Library staff will place monthly orders in order to provide new LibraryToGo titles on a regular basis.

Co-funding (In-Kind) funds will be used for:

- $3,431 annual membership in OverDrive's LibraryToGo NorthNet consortium plan
- Development of the collection of newly purchased digital books to meet user expectations. A Librarian will review materials, select titles, and complete all purchasing of OverDrive materials.
- Cataloging of new digital materials including adding catalog entries to the Nevada County Community Library's online catalog, accessible through the County website. Library Technicians retrieve cataloging records from LibraryToGo and modify them, if necessary, to provide optimal ease of search.
- Project management, handled by the County Librarian.

To effectively monitor and evaluate the use of LibraryToGo, library staff will track the use of both downloadable e-books and audiobooks on a monthly basis to determine the circulation of these library materials.

Any marketing materials developed for LibraryToGo will state that the collection is partially funded by the NSAQMD utilizing DMV Surcharge Funds.

H. FUNDING REQUEST/ BREAKDOWN OF COST

Item	Amount	Funding Source	Description
LibraryToGo	$20,000	AB 2766	Purchase of 300 e-books and audiobooks
LibraryToGo	$3,431	In-kind	Platform cost, OverDrive
Librarian II	$1,155	In-kind	Purchasing e-books and audiobooks (24 hours)
Library Technician	$528	In-kind	Adding MARC records to library catalog (12 hours)
County Librarian	$930	In-kind	Project management (10 hours)

Total Project Cost: $26,044 ($20,000 from AB 2766, $6,044 from in-kind contributions)

No equipment or operating costs will be funded by the requested AB 2766 grant.

If this grant request cannot be fully funded, an alternative funding level would still allow for the purchase of fewer digital titles. In-kind costs would be reduced for collection development and cataloging, but would remain level for project management.

The Library's Accounting Technician will set up an identifying project cost number (PCN) for this grant. Records for purchases made with grant funds and time entries for staff hours used to complete the grant activities will contain this unique PCN, making all grant-funded and in-kind costs easily trackable.

I. SCHEDULE OF DELIVERABLES/MONITORING PROGRAM

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Purchase e-books and audiobooks for LibraryToGo	x	x	x	x	x	x	x	x	x	x	x	x
Catalog e-books and audiobooks	x	x	x	x	x	x	x	x	x	x	x	x
Project management	x	x	x	x	x	x	x	x	x	x	x	X

The Library already tracks the number of items checked out through LibraryToGo. Therefore, we will be able to track usage and calculate trends, such as increases in use, on a monthly and annual basis.

APPENDIX A: EMISSION CALCULATIONS AND ASSUMPTIONS

NSAQMD AB 2766 Grant	**Nevada County**
Grant Year:	2019
Department Name:	Library
Grant Name:	Digital Book Project
Grant Funding Amount	$20,000
In-Kind Funding amount	$6,044
Total Project Funding amount	$26,044
Effectiveness Period (LIFE)	5 Years
Capital recovery factor	0.22
Average Miles per trip (one-way)	2.97
One Way Vehicle Trip Reductions per year	**100,613**
Annual Miles travelled, round trips	597,641
Average Auto Emissions Factors (ARB 2013 from table 3)	
ROG - Average Trip ends (g/trip end)	0.584
ROG - Auto VMT factor (grams/mile)	0.191
NOx - Average Trip ends (g/trip end)	0.298
NOx - Auto VMT factor (grams/mile)	0.217
PM2.5 - Average Trip ends (g/trip end)	0.003
PM2.5 - VMT factor (grams/mile)	0.087
Annual Emission Reduction - ROG (lbs/year)	510.28
Annual Emission Reduction - Nox (lbs/year)	417.74
Annual Emission Reduction - PM2.5 (lbs/year)	115.86
Total Emissions reduction (All) (lbs/year)	1043.87
Cost-Effectiveness of Funding Dollars ($$/lb)	**$4.22**

Project Assumptions

Formulas used to calculate the estimated emission reductions from the project, and the related factor tables, are taken from the California Air Resources Board (ARB) "Methods to Find the Cost-Effectiveness of Funding Air Quality Projects." The same source is used to determine the cost-effectiveness of this project.

Calculating annual emissions reductions for this digital book project was based upon how many miles to and from a particular branch library location a library user traveled. Library patron counts were retrieved from July 26, 2008 through July 26th, 2011, giving a three year spread of users. The total database of users was 26,214. The addresses for each cardholder were plotted

using Geographic Information System techniques to show how far each user lived from his or her closest library (out of the five circulating locations). This resulted in an average number of miles per trip to a local library in Nevada County of 2.97 miles.

Two one-way trips for each patron were used in calculations because for physical materials, a user needs to both visit the library to pick up an item and again to return the item. In the last fiscal year (July 2017-June 2018), the LibraryToGo collection had 41,922 circulations to Nevada County Community Library patrons checking out a collection of approximately 13,760 items. This is a 19% increase over circulations for the previous year (July 2016-June 2017). Projecting another 20% increase forward to July 2019, we forecast that the number of circulations for the 2018-2019 fiscal year will total 50,306, which is a circulation factor of 3.66. If 300 new titles are added with the current circulation factor of 3.66, there would be an additional 1,097 new checkouts, bringing a year's total to 51,403. This would result in 102,806 one way trips reduced. With an average trip one way to the library of 2.97 miles, 305,334 first year miles would be saved. The expected Effectiveness Period of a digital book in the Nevada County Community Library system is 5 years.

A. EXHIBIT SUMMARY SHEET

Proposing Entity (include other participating entities): County of Nevada's Health and Human Services Agency (HHSA) and Information and General Services Department (IGS).

Contact Person: Ryan Gruver

Address: 950 Maidu Ave, Nevada City, CA 95959

Phone #: (530) 265-1559 **FAX #:** (530) 265-7226 **EMAIL:** ryan.gruver@co.nevada.ca.us

Total Project Budget:

	AB 2766 Funds	Co-Funding	Total Project Costs
Capital Costs	$ 40,000	$ 0	$ 40,000
Operating Costs	$ 0	$ 10,000	$ 10,000
TOTAL	**$ 40,000**	**$ 10,000**	**$ 50,000**

Type of Project: (check one)

_X_ Quantifiable Project

___ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide ___

Describe the Implementation Area for the Project (city, county, region): Nevada County

Estimated Emission Reductions:

A. Emission Reductions (lbs/yr)

Reactive Organic Gases: 87.53 Nitrogen Oxides: 94.51 PM 36.40

B. Vehicle Miles Traveled (VMT) Reduced: 189,768

Single Occupancy Vehicle Trips Reduced: 5,978

C. Number of people reached per day through public education: 0

Cost-effectiveness: **$ 40.29 per pound (AB 2766 Funds Only)**

Brief Project Description:
The County of Nevada proposes to use AB 2766 grant funds to leverage current County network infrastructure and today's new video conferencing technology to enable a broad range of county workers to stay in their offices for meetings and trainings, eliminating multiple office trips each week between County facilities and reducing air pollution.

B. REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: Nevada County Health and Human Services Agency

Please complete and attach this checklist with your application.

- [x] Exhibit Summary Sheet - page 1
- [x] Request for Proposal Contents Checklist - page 2
- [x] Authorization Letter/Resolution - page 3
- [x] Project Description – pages 4-6
- [x] Project Organization/Background - page 6
- [x] Emissions Benefits/Cost-Effectiveness - pages 7-8
- [x] Work Statement - pages 9-10
- [x] Funding Request/Breakdown of Cost - pages 10-11
- [x] Schedule of Deliverables/Monitoring - pages 12
- [x] All Pages Numbered
- [x] Three Copies Of Proposal Plus One Original

(CHECK ONE ONLY)

- [x] Quantifiable Project

- OR -

- [ ] Reduced Emission Vehicles Project

County of Nevada
County Executive Office
Eric Rood Administrative Center
950 Maidu Avenue
Nevada City, CA 95959
Phone: (530) 265 – 7040
Fax: (530) 265-9839
Email: ceo@co.nevada.ca.us

August 2, 2018

Northern Sierra Air Quality Management District
Attn: Joseph Fish
200 Litton Drive, Suite. 320
Grass Valley, CA 95945

SUBJECT: Authorization for the Nevada County Health & Human Services Agency to submit a formal grant proposal for the use of AB 2766 DMV Surcharge funds for the 2018-2019 grant project cycle on behalf of the County of Nevada.

BACKGROUND: Nevada County Health & Human Services Agency in a joint project with the Nevada County Information & General Services Department to submit a formal grant proposal to implement and upgrade their ability to conduct video conferencing. Video conferencing equipment is projected to have a life-span of 5 years and will reduce interagency trip traffic from County offices. Improving this ability will have a substantial impact in the reduction of vehicle miles traveled, fleet costs and associated emissions. The formal grant proposal that is being submitted equates to a $50,000 project with a request of $40,000 in AB 2766 funding and $10,000 in co-funding.

AUTHORIZATION: I hereby authorize, on behalf of the Board of Supervisors of the County of Nevada, the submittal of Nevada County HHSA's formal grant proposal to NSAQMD for the use of 2766 DMV Surcharge Funds for the 2018-2019 grant project cycle.

Richard A. Haffey
County Executive Officer
County of Nevada

8/2/18
Date

Contact information for Nevada County HHSA is listed below:

Ryan Gruver
Nevada County HHSA

(530) 265-7226
ryan.gruver@co.nevada.ca.us

D. PROJECT DESCRIPTION

The County of Nevada proposes to use AB 2766 grant funds to leverage current County network infrastructure and today's new video conferencing technology to enable a broad range of county workers to stay in their offices for meetings and trainings, eliminating multiple office trips each week between County facilities and reducing air pollution.

This proposal of grant funding covers the procurement of 5 (five) Polycom video conferencing units accompanied with 2 (two) Flat Screen Televisions, and 1 (one) Computer Monitor with supplementary wall mounting and cabling equipment. Contracts associated with the successful implementation of this project includes 5 (five) Polycom Real Connect Licenses as well as PC build/install vendor technical assistance, network cabling and the addition of 2 (two) Power Outlets. Proposal assumes labor involving setup and install of equipment through a Network Analyst at a total budget of $5,742.00 will be charged to grant funds. The County of Nevada will provide $10,000 of matching funds based on Desktop Technician Technical Assistance, Facilities Maintenance, and Project Management/Successful Implementation of the project.

Nevada County will be using the California Air Resources Board's Methods to find the *Cost- Effectiveness of Funding Air Quality Projects - 2013 Edition*, Telecommunications section to determine the amount of emissions that will be reduced by the eliminated trips to County Offices.

Objectives
The main objective for this project is to keep county workers in their home base offices during the work day, eliminating the many time wasting and air polluting trips they make every day between their regular work office locations to meetings and trainings in other county buildings.

This project will prove and measure accessibility, efficiency, effectiveness, and raise employee productivity by decreasing workers' overall travel time logged on a daily basis and will reduce air pollution based on the resulting office trip eliminations. A wide range of county workers across the organization will partake in the project including all of Health and Human Services staff, particularly those that work in the Truckee office.

This represents a portion of total county workers that will ultimately benefit from the ability to stay in the office and attend meetings and trainings virtually from their own home office building location. Once the project is completed and proven successful, then video conferencing solutions can be expanded and deployed across the remaining county conference rooms.

Some of the functions and activities that this project will allow the workers to perform from their own building location rather than travel to other locations include:

- Weekly and monthly staff meetings
- Department wide training sessions

- County wide training and informational sessions
- Enhanced mobile communication services for video conferencing, voice calling and conferencing,
- Enhanced presentation and data sharing capability
- Screen sharing between locations

You will see below that this project stands on its own feet for the cost effectiveness requirement, however the real exponential value and pollution savings will be realized in the years after the project is completed and the enhanced video conferencing technology is expanded out to more county conference and meeting rooms. The first year will also save the County in fuel/fleet costs which will grow and continue forward annually. A very easily achievable increase of the remote video conference enabled workers would cut this cost. In addition, many of the video conferencing solutions could also be leveraged for a stay at home remote-worker program if the county desired.

Scope of Work

The County currently has outdated video conferencing (VC) systems and infrastructure that current workers utilize on a daily basis. These systems requires the Information and General Services staff to troubleshoot on a frequent basis. The VC units are over 10 years old and do not have the latest technology and do not support high definition, screen sharing, telepresence, multiway conferencing, data sharing and mobile video conferencing. They are currently limited in the number of callers to the conference. This project will perform the following activities.

1. Perform a high level business analysis of the workers current processes, procedures, and meeting/trip activity.
2. Inventory existing meeting room equipment to determine where new equipment is most needed.
3. Scope and design VC solutions leveraging existing infrastructure.
4. Procure required VC hardware, software and training.
5. Implement, document, and train workers, and deploy the VC solutions.
6. Gain feedback from workers, and track travel saving activity.
7. Assist departments to expand use of the VC equipment, which could include meetings with people outside the County, or work from home.

As the business analysis is performed and the VC solution developed for each location, the required equipment, services, and software will be purchased. Purchased equipment will include; cameras, projectors, microphones, white board screens and software.

AB 2766 Funds

AB 2766 funds will be used to purchase the required equipment, services, and software as described above. The County will provide in kind and further funding through the IT and HHSA staff time to perform the business analysis, design VC solutions, researching equipment to be purchased, configuring and deploying equipment, and training workers on the solutions. The County will also networking infrastructure add new networking capabilities as required to meet the VC solution needs.

Co-Funding
The County will use existing networking infrastructure and enhance, expand and improve as needed. Staff time will be covered by the County for HHSA and IGS staff. Some equipment in smaller conference rooms will be purchase with county funding as required.

E. PROJECT ORGANIZATION/BACKGROUND

Staff from Health and Human Services Agency (HHSA) and Information and General Services Department (IGS) will be working cooperatively on this project. Each staff member will bring his or her expertise to the project. Program Managers in each agency and/or department will be providing direct supervision for successful completion of this project.

Health and Human Services Agency (HHSA) consists of multiple departments. This includes Behavioral Health, Child Support Services, Collections, Housing & Community Services, Public Health, Social Services, and Veterans' Services. The agency provides a broad range of health and social services that promote the wellness, self-sufficiency, and safety of Nevada County residents. As the largest agency within the County of Nevada, agency operational areas are located throughout the county causing a needed utilization of virtual meetings.

HHSA staff have analyzed and determined the most effective use of conference room equipment. Staff has also tracked office trip activity and miles traveled. Data was then analyzed for project effectiveness. HHSA staff will therefore prepare the estimates of emissions reductions for this proposal and the reporting. Expenditures of grant funds and in-kind funds will be tracked in our accounting system *Pentamation Finance Plus*. *Pentamation* allows the HHSA Fiscal Unit to track expenditures by projects. We can track expenditures of both the grant and the in-kind funds easily using unique project code numbers. We will also use Microsoft Excel to present the financial data in the required grant finance reports.

Information and General Services (IGS) Department is a centralized department that provides support to the County's computer network infrastructure, server applications, desktop software, Intranet, and phones. IGS staff members will manage, direct and implement changes necessary to the County's computer systems to support this project.

Likewise, IGS staff have analyzed and determined necessary components in implementing video conferencing equipment. Through the duration of the project IGS staff will ensure all site preparation, power supply compatibility requirements and other specified service prerequisites are met. In addition IGS Staff will provide related settings information (IP setting etc.) and ensure workable video conferencing solutions. This scope will also include the physical mounting facilities if necessary (eg rack space, screws), LAN nodes, cabling facilities & power sockets etc. During implementation detailed information pertaining to installation, training, and troubleshooting will be relayed to HHSA staff.

F. EMISSION BENEFIT/COST EFFECTIVENESS

Project Assumptions
Formulas used to calculate the estimated emission reductions from the project, and the related factor tables, are taken from the California Air Resources Board (ARB) "Methods to Find the Cost-Effectiveness of Funding Air Quality Projects" (2013 Edition). The same source is used to determine the cost-effectiveness of the project.

Estimates of mileage reduction factors come from data gathered for previous NSAQMD grant projects. Emission Factor Inputs are based on Table 3 Average Auto Emission Factors (2013 Edition) data pertaining to ROG, NOx, and PM10. Other factors are from department records of conference room calendared activities along with location designations.

The county is geographically divided into western and eastern portions by the natural divide of the Sierra Nevada Mountains. The western, more populace portion, centers on the Nevada City/Grass Valley urban area while the eastern portion is centered on the Town of Truckee. For purposes of this analysis, we have divided the county into these two portions with the Sierra Nevada point of Donner Summit as the dividing line. This allows us to apply longer travel distances (60 miles) to the eastern portion and significantly lower travel distances (6 miles) to the western portion.

To allocate the number of visits equitably, staff used actual conference room data from the previous year in order to project reductions in vehicle trips and miles traveled. This equated to 52% of visits attributed to the western portion of the county while 48% of the visits were attributed to the eastern portion of the county.

Emissions Summary

Western Region Summary:	
Average miles per trip:	6
Vehicle trips reduced (one-way):	1,564
Vehicle trips reduced (round trip/annual):	3,128
Total vehicle miles traveled reductions (one-way):	9,384
Total vehicle miles traveled reductions (round trip/annual):	18,768
Eastern Region Summary:	
Average miles per trip:	60
Vehicle trips reduced (one-way):	1,425
Vehicle trips reduced (round trip/annual):	2,850
Total vehicle miles traveled reductions (one-way):	85,500
Total vehicle miles traveled reductions (round trip/annual):	171,000
Total Summary	
Average miles per trip:	31.7444
Vehicle trips reduced (one-way):	2,989
Vehicle trips reduced (round trip/annual):	5,978
Total vehicle miles traveled reductions (one-way):	94,884

Total vehicle miles traveled reductions (round trip/annual):	189,768
Annual Emission Reduction - ROG (lbs/year):	87.53
Annual Emission Reduction - NOx (lbs/year):	94.51
Annual Emission Reduction - PM10 (lbs/year):	36.40
Total Emissions Reductions:	218.44
Cost-effectiveness of Fund Dollars ($/lb)	$40.29

Calculation

The below chart reflects formulas, inputs, outcomes and calculations which provided the basis of the emissions summary and data provided within this grant application.

Funding		Capitol Recover Factors	
Grant Funding Amount	40,000.00	1 yr	1.03
In-Kind Funding amount	10,000.00	3 yrs	0.35
Total Project Funding amount	50,000.00	5 yrs	0.22
Factors		7 yrs	0.16
Effectiveness Period (LIFE)	5.00	10 yrs	0.12
		12 yrs	0.10
Capital Recovery Factor	0.22	15 yrs	0.08
		20 yrs	0.07
Western County			
Average Miles per trip (one-way)	6.00	Annual Emission Reduction - ROG (lbs/yr)	11.92
One Way Vehicle Trip Reductions per yr	1,564.00	Annual Emission Reduction - NOx (lbs/yr)	10.96
Annual Vehicle Reductions per yr	3,128.00	Annual Emission Reduction - PM (lbs/yr)	3.62
One Way Miles travelled	9,384.00	Total Emissions reduction (All) (lbs/yr)	26.50
Annual Miles travelled, round trips	18,768.00		
Eastern County			
Average Miles per trip (one-way)	60.00	Annual Emission Reduction - ROG (lbs/yr)	75.61
One Way Vehicle Trip Reductions per yr	1,425.00	Annual Emission Reduction - NOx (lbs/yr)	83.55
Annual Vehicle Reductions per yr	2,850.00	Annual Emission Reduction - PM (lbs/yr)	32.79
One Way Miles travelled	85,500.00	Total Emissions reduction (All) (lbs/yr)	191.94
Annual Miles travelled, round trips	171,000.00		
Total County			
Average Miles per trip (one-way)	31.7444	Annual Emission Reduction - ROG (lbs/yr)	87.53
One Way Vehicle Trip Reductions per yr.	2,989.00	Annual Emission Reduction - NOx (lbs/yr)	94.51
Annual Vehicle Reductions per yr	5,978.00	Annual Emission Reduction - PM (lbs/yr)	36.40
One Way Miles travelled	94,884.00	Total Emissions reduction (All) (lbs/yr)	218.44
Annual Miles travelled, round trips	189,768.00		
Emission Factor Inputs for Auto Travel			
ROG - Average Trip ends (g/trip end)	0.584	Data Gathered From CARB March 2018 UpdateTable #3	
ROG - Auto VMT factor (grams/mile)	0.191	Data Gathered From CARB March 2018 UpdateTable #3	
NOx - Average Trip ends (g/trip end)	0.289	Data Gathered From CARB March 2018 UpdateTable #3	
NOx - Auto VMT factor (grams/mile)	0.217	Data Gathered From CARB March 2018 UpdateTable #3	
PM - Average Trip ends (g/trip end)	0.003	Data Gathered From CARB March 2018 UpdateTable #3	
PM - VMT factor (grams/mile)	0.087	Data Gathered From CARB March 2018 UpdateTable #3	
Average Auto Emissions Factors			
Annual Emission Reduction - ROG (lbs/yr)	87.53	Formula: [(189,768 Annual Miles Traveled * 0.191 ROG VMT Factor) + (5,978 Annual Trips Reduced * 0.584 ROG Average Trip Ends) / 454]	
Annual Emission Reduction - NOx (lbs/yr)	94.51	Formula: [(189,768 Annual Miles Traveled * 0.217 NOx VMT Factor) + (5,978 Annual Trips Reduced * 0.289 NOx Average Trip Ends) / 454]	
Annual Emission Reduction - PM (lbs/yr)	36.40	Formula: [(189,768 Annual Miles Traveled * 0.087 PM VMT Factor) + (5,978 Annual Trips Reduced * 0.003 PM Average Trip Ends) / 454]	
Total Emissions Factors			
Total Emissions reduction (All) (lbs/yr)	218.44	Formula: 87.53 ROG lbs per yr + 94.51 NOx lbs per yr + 36.40 PM lbs per yr	
Cost-Effectiveness of Funding Dollars	**$40.29**	Formula: (.22 Capital Recovery Factor * $40,000 Grant Funding Amount) / (87.53 ROG + 94.51 NOx + 36.40 PM)	

G. WORK STATEMENT

During the pre-screening portion of this grant staff conduced a business analysis of current processes, procedures and meeting trip activities. This analysis provided the basis of data calculated in the Emissions Summary as it pertains to trips and mileage to and from meetings. Additionally this analysis provided insight to our standard operating procedures and an implementation plan was formed to reduce vehicle miles traveled and associated emissions reductions for inter-office meetings. Implementation of this plan hinges on the need of video conferencing equipment in multiple locations throughout the County.

As a secondary result of this business analysis, IGS staff created an inventory list to determine where equipment is most needed as well as listed products and services that support high definition, screen sharing, telepresence, multiway conferencing, data sharing and mobile video conferencing. Purchased equipment will include; Polycom systems, screens, mounts, cables and software. Additional details pertaining to the purchased equipment are found below as scope of video conferencing needs have now been defined.

PURCHASE OF VIDEO CONFERENCING RELATED EQUIPMENT AND SOFTWARE, FOR PROJECT USE

1. Purchase of Polycom systems, screens, mounts, cables and software for video conferencing.
2. Purchase software to be used for video conferencing.

IGS Staff will request purchase orders from the County Purchasing Department to purchase video conferencing equipment and software.

INSTALLATION OF VIDEO CONFERENCING RELATED EQUIPMENT AND SOFTWARE

1. Installation of video conferencing equipment
2. Installation of software on video conferencing equipment

IGS Staff will install the products and services that support high definition, screen sharing, telepresence, and multiway conferencing, data sharing and mobile video conferencing.

REVIEW AND IMPLEMENTATION OF PROCESSES FOR VIDEO CONFRENCING

1. Conduct quality assurance on functioning video conferencing equipment and software.
2. Promote video conferencing ability through HHSA staff training.
3. HHSA policy implementation for video conferencing and vehicle usage.

HHSA and IGS Staff will ensure proper troubleshooting and training has been conducted to increase the number of meetings provided by video conferencing thus reducing vehicle miles traveled and associated emissions.

MONITORING AND EVALUATING THE PROGRAM

1. Review and submittal of financial requirements per NSAQMD agreement requirements.
2. Review of conference room calendared activities.
    a. Review of video conferencing meetings.
    b. Review of meetings where video conferencing was not utilized
3. Generation of GHG emissions reduced during project cycle

HHSA and IGS Staff will provide needed financial data per NNSAQMD agreement requirements. Additionally throughout the implementation of this project meeting room calendars will be reviewed to ensure video conferencing equipment utilization. Utilization of video conference meeting numbers will be useful in the generation of GHG emissions reduced throughout the project life cycle.

This work statement reflects the period from January 1, 2019 through December 31, 2019 and assumes that the Board of Supervisors approves the contract between NSAQMD and the County prior to January 1, 2019. The tasks will be completed under the guidance of the HHSA Staff. The Directors and Program Managers in all divisions and departments that are involved in this project will be coordinating with the HHSA Staff.

There will be public acknowledgement that this project is funded by the District utilizing DMV Surcharge Funds.

H. FUNDING REQUEST/BREAKDOWN COST

Funding for this video conferencing project consists of the requested $40,000 in AB 2766 grant funds and matching in-kind funds of $10,000 for a total project cost of $50,000.

AB 2766 Grant Funds

Equipment and software purchased with AB 2766 Funds will be 100% devoted to video conferencing capabilities. Requested amount of $40,000 includes $31,718.00 allocated for equipment costs, $2,540.00 for Contracting, and $5,742.00 for Project Installation of Video Conferencing Equipment. Total amounts equate to the below referenced Equipment, Contracting, and Labor Chart

Co-Funding (In-Kind)

The amount of $10,000 will be provided from staff costs such as: training of staff, customer training, supervision of the project, data monitoring, coordination of the Information System Services, tracking of expenditures, preparation of progress reports and administrative services.

Nevada County Health and Human Services Agency will track the expenditures of grant funds and in-kind funds using our accounting system purchased by Nevada County and installed April 18, 2005. The Pentamation Finance Plus software allows our Fiscal Unit to track expenditures by projects. We can track expenditures of both the grant funds and the in-kind funds very easily using unique project code numbers. We will also use Microsoft Excel to present the financial data for the required grant finance reports.

Equipment, Contracting, and Labor Chart

Total Equipment List			
Equipment Needed	**Qty**	**Budgeted Cost**	
Polycom System	3	$ 15,930.00	
Polycom HDX 9006 or equiv	2	$ 7,080.00	
LG 55" class flat screen	1	$ 826.00	
LG 65" class flat screen	1	$ 1,180.00	
Flat screen mount	2	$ 354.00	
Camera wall mount	5	$ 1,475.00	
Codec wall mount	5	$ 885.00	
HDMI and AV cables	5	$ 2,124.00	
Standard PC	1	$ 1,004.00	
22" monitor	1	$ 400.00	
Shipping	1	$ 460.00	
Total Equipment	$	**31,718.00**	Equipment Costs AB 7766 Grant Funds
Total Contracts			
Contract Need	**Qty**	**Budgeted Cost**	
Polycom RealConnect License	5	$ 575.00	
PC build/install	1	$ 165.00	
Network Cabling	2	$ 800.00	
Additional Power Outlets	2	$ 1,000.00	
Total Contract	$	**2,540.00**	Contract Costs AB 7766 Grant Funds
Total Labor			
Labor Code	**Hours**	**Budgeted Cost**	
Network Analyst	58	$ 5,742.00	Installation Cost AB 7766 Grant Funds
Desktop Technician	7	$ 710.00	$10,000 County of Nevada Matching Funds
Facilities	40	$ 3,800.00	
Project Management/ Implementation	45	$ 5,490.00	
Total Labor	$	**15,742.00**	
Total Project Budgeted Amount			
$		50,000.00	

I. Schedule of Deliverables/ Monitoring Program

Schedule of Deliverables/ Monitoring Program

Task	Jan - 19	Feb - 19	Mar - 19	Apr - 19	May - 19	Jun - 19	July - 19	Aug - 19	Sep - 19	Oct - 19	Nov - 19	Dec - 19
Purchase of Video Conferencing Related Equipment and Software												
Purchase of Polycom systems, screens, mounts, cables and software	X	X	X									
Purchase software to be used for video conferencing				X	X							
Installation of Video Conferencing Related Equipment and Software												
Installation of video conferencing equipment				X	X							
Installation of software on video conferencing equipment					X	X						
Review and Implementation of Process for Video Conferencing												
Conduct quality assurance on functioning video conferencing equipment and software						X						
Promote video conferencing ability through HHSA staff training							X					
HHSA policy implementation for video conferencing and vehicle usage.							X					
Monitoring and Evaluating the Program												
Review and submittal of financial requirements per NSAQMD agreement requirements.	X	X	X	X	X	X	X	X	X	X	X	X
Review of conference room calendared activities.	X						X	X	X	X	X	X
Review of video conferencing meetings.							X	X	X	X	X	X
Review of meetings where video conferencing was not utilized							X	X	X	X	X	X
Generation of GHG emissions reduced during project cycle	X							X	X	X	X	X

EXHIBIT SUMMARY SHEET

Proposing Entity (include other participating entities): Yuba Bus, LLC

Contact Person: Dave Preston

Address: P.O. Box 2003, Nevada City, CA 95959

Phone #: (530) 517-8272 **FAX #:** **EMAIL: yubabus@gmail.com**

Total Project Budget:

	AB 2766 Funds	Co-Funding	Total Project Costs
Capital Costs	$86,000	$54,000	$140,000
Operating Costs	$	$35,000	$35,000
TOTAL	**$86,000**	**$89,000**	**$175,000**

Type of Project: (check one)

___ Quantifiable Project

✓ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide ___

Nevada City, Nevada County, California.

Estimated Emission Reductions:

A. Emission Reductions (lbs/yr)

Reactive Organic Gases 200.48 Nitrogen Oxides 214.57 Particulate Matter 81.82

B. Vehicle Miles Traveled (VMT) Reduced 426,400.00

Single Occupancy Vehicle Trips Reduced 26.00

C. Number of people reached per day through public education 100

Cost-effectiveness: **$60.58 per pound (AB 2766 Funds Only)**

Brief Project Description: Yuba Bus, LLC will purchase an all-electric drive bus to shuttle recreational users from Nevada City to the South Yuba River State Park – Highway 49 Crossing Bridge. Yuba Bus will also utilize the bus to shuttle people from Nevada City to local and regional events. The Primary Objective of the Project is to reduce annual single vehicle trips and decrease auto emissions in western Nevada County. The Secondary Project Objective is to provide education and public outreach on air quality and public safety.

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: Yuba Bus, LLC

Please complete and attach this checklist with your application.

X	Exhibit Summary Sheet – page 1
X	Request for Proposal Contents Checklist – page 2
X	Authorization Letter/Resolution – page 3
X	Project Description – page 4
X	Project Organization/Background - page 5
X	Emissions Benefits/Cost-Effectiveness - page 6
X	Work Statement - page 7
X	Funding Request/Breakdown of Cost - page 8
X	Schedule of Deliverables/Monitoring - page 9
X	All Pages Numbered
X	Three Copies of Proposal Plus One Original

(CHECK ONE ONLY)

	Quantifiable Project
	- OR -
X	Reduced Emission Vehicles Project

September 4, 2018

Joe Fish
Northern Sierra Air Quality Management District
200 Litton Drive, Suite 320, Grass Valley, CA 95945

Dear Mr. Fish,

Thank you for the opportunity to submit this proposal for funding to acquire an all-electric drive shuttle bus. The funding provided through the AB 2766 DMV Surcharge Program will assist Yuba Bus, LLC to further reduce vehicle trips and air emissions in western Nevada County, while supporting an alternative transportation option for residents and tourists.

Yuba Bus, LLC has been working with Nevada County Supervisors, Hank Weston and Heidi Hall, to increase our transportation services in western Nevada County. We support the submittal of this proposal and look forward to working in partnership with the Northern Sierra Air Quality Management District. I will serve as the Project Manager under this funding application. My contact information is as follows:

Dave Preston, Co-Owner/VP of Operations
Yuba Bus, LLC
208 Gold Flat Court, Suite A (Terminal Address)
P.O. Box 2003 (Mailing Address)
Nevada City, CA 95959
(530) 517-8272 (Phone)
yubabus@gmail.com (Email)

If you have any questions regarding our Project or this proposal, please contact me at any time. Again, thank you for your consideration and the efforts you are doing to increase the quality of our air in Nevada County.

Sincerely,

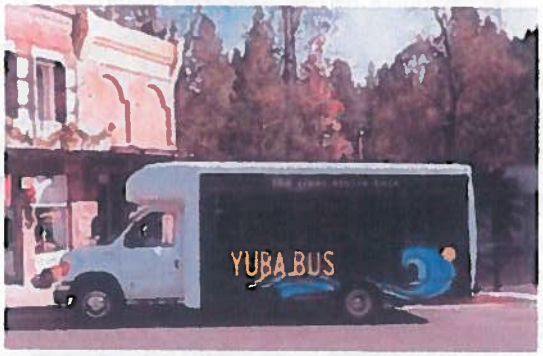
Dave Preston
Co-Owner I VP of Operations
Yuba Bus, LLC

PROJECT DESCRIPTION

Yuba Bus, LLC, established in 2017, provides an eco-friendly transportation alternative for people visiting the South Yuba River State Park and local/regional events in Nevada County. The purpose of Yuba Bus is to reduce single vehicle trips, decrease auto emissions, alleviate traffic congestion and parking issues, and increase public knowledge about air quality and public safety.

The South Yuba River receives a reported 800,000 visitors annually. One of the most popular locations to visit on the Yuba is South Yuba River State Park- Highway 49 Crossing, 12 miles from Nevada City. Visitor parking is extremely limited at the Crossing, with less than 50 legal parking spaces, and the highway corridor can be hazardous during peak travel times, creating public safety issues and increased air emissions on days when air quality is poor.

The Yuba River shuttle service, provided by Yuba Bus, offers multiple pickups per day throughout Nevada City to Highway 49 Crossing during the summer season. To assure the ultimate rider experience, Yuba Bus provides only the best customer service, ensuring everything is needed to make sure the riders are happy, informed, and safe. Free Wi-Fi is offered on the shuttle bus and a flat screen monitor presents a public education opportunity for people utilizing the service.



Yuba Bus also provides year-round Charter Bus Services, offering group transportation for local events, festivals, wedding and sporting activities. Currently there are no regular group transportation services in the Nevada City/Grass Valley area. Groups can hire the local school bus company but that lacks ambience, comfort and personality. The local taxi service is inconsistent and has proven to be an option that most people would prefer to avoid. Even companies like Uber and Lyft are limited in the area. The wedding industry in Nevada County is a large source for tourism. There are multiple weddings every weekend day and with no group transportation available, attendants are required to take multiple cars from location to location. In addition, the Yuba Bus Charter Service includes organized trips for the outdoor adventures popular in western Nevada County.

The Primary Objective of this proposal to the Northern Sierra Air Quality Management District is to purchase an all-electric drive shuttle bus to provide transportation to the South Yuba River State Park from Nevada City, as well as Charter Bus Service, to reduce single vehicle trips and further reduce air emissions in western Nevada County.

The Secondary Objective of this proposal is to provide education and public outreach to residents and visitors on public safety and pollution prevention.

The Scope of Work includes the following:

1) Purchase an all-electric drive shuttle bus that is compliant with American Disabilities Act (ADA) approved wheel chair access.
2) Install a charging station that incorporates the use of solar power to further reduce the carbon footprint in western Nevada County.
3) Update the Yuba Bus website to include an interactive educational component on pollution prevention, air emissions reduction, and public safety.
4) Develop a visual public outreach campaign for Yuba Bus users on pollution prevention, air emissions reduction, and public safety, including a fun fact display for the on-bus flat screen monitor, pamphlets for distribution, and other materials that support a partnership with the Northern Sierra Air Quality Management District.
5) Monitor and collect data for distribution to the Northern Sierra Air Quality Management District, City of Nevada City, and Nevada County.

PROJECT ORGANIZATION/BACKGROUND

Yuba Bus, LLC is one of few local alternative transportation services in western Nevada County. The company provides a consistent and reliable shuttle for recreational users to the South Yuba River State Park – Highway 49 Crossing from Nevada City and Grass Valley in 2019, as well as local group outings and regional events. Yuba Bus, LLC Shuttle & Charter Services is fully licensed and insured per California state requirements DOT# 3056035, CA# 516266 and CPUC PSC & TCP #0037604.

Yuba Bus currently owns and operates one shuttle bus, a 25-foot-long Ford E450 paratransit that holds 20 passengers and has ample storage inside for gear and sporting equipment. This vehicle is maintained per the requirements set by the California Public Utilities Commission (CPUC), California Highway Patrol (CHP) and the U.S. Department of Transportation (USDOT). Per CHP, the shuttle bus is thoroughly checked and maintained every 45 days. Yuba Bus is ADA compliant per California law to conduct scheduled shuttle bus services. The current bus has a fully functional wheel chair lift that can hold up to two wheel chairs at a time. Insurance for the vehicle is provided by a local agency, per the state of California's requirements, and Yuba Bus carry's $5,000,000 in insurance, protecting the vehicle and passages alike. All other state requirements, including those by California State Parks and the California Public Utilities Commission, are up to date.

Yuba Bus, LLC was established in 2017 and has been in operation since January 2018. The company is owned and operated by Brett Dotson and Dave Preston, both long time residents of Nevada City. Brett graduated from Virginia Wesleyan College with a degree in Fine Arts and is currently employed with SMA, a global specialist for photovoltaic system technology. Dave Preston graduated from Curry College with a degree in Business Management and is a professional photographer. Both Brett and Dave are active community members and have volunteered countless hours to local organizations, such as the South Yuba River Citizen League (SYRCL).

Yuba Bus is participating in discussions with Nevada County and local emergency agencies to increase public safety awareness at the river. This group, the Yuba River Safety Cohort, is spearheading the effort to increase measures that benefit the health and welfare of recreational users at the South Yuba River. In addition, Yuba Bus is coordinating with the City of Nevada City and the Nevada City Chamber of Commerce to increase public knowledge on alternative transportation options. Other community partnerships with Yuba Bus include SYRCL, Bear-Yuba Land Trust, and the Miners Foundry Cultural Center.

Yuba Bus collects data during its daily operations, including number of people, total miles traveled, and fuel consumption. This data has and will help the Project team to prepare estimates of emissions reduction for this proposal and for reporting to the Northern Sierra Air Quality Management District. Yuba Bus employs Bianna Weston, a professional bookkeeper whom has the accounting capabilities to track costs by Project task, expenditure, and source.

EMISSION BENEFITS/COST-EFFECTIVENESS

The effectiveness period for the Project is three years and has a capital recovery factor of 0.35. Miles were calculated only for the trips to the South Yuba River State Park – Highway 49 Crossing from Nevada City, during the summer season. Calculations do not include the Charter Bus Services that are conducted throughout the year. The average miles per trip is 26.00, with one-way vehicle trip reductions calculated to be 8,200 miles. Minimum annual round-trip miles travelled for the Project is 426,400.00.

Average Auto Emissions Factors	
Reactive Organic Gases (ROG) - Average Trip Ends	0.584 (grams/trip end)
ROG - Auto Vehicle Mile Traveled (VMT) Factor	0.191 (grams/mile)
Nitrogen Oxides - Average Trip Ends	0.298 (grams/trip end)
NOx - Auto VMT Factor	0.217 (grams/mile)
Particulate Matter (PM) 2.5 - Average Trip Ends	0.003 (grams/trip end)
PM2.5 - VMT Factor	0.087 (grams/mile)

Table 1. Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, California Air Resources Board, 2013.

Annual Emission Reduction	
ROG	200.48 (lbs/year)
NOx	214.57 (lbs/year)
PM2.5	81.81 (lbs/year)
Total Emissions reduction (All)	496.88 (lbs/year)

Table 2. Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, California Air Resources Board, 2013.

The ***cost-effectiveness of the funding*** provided by the Northern Sierra Air Quality Management District for the Project is ***$60.58 per pound***.

WORK STATEMENT

The following Project Tasks will be completed using the funding provided through AB 2766 allocations provided for Nevada County.

Task 1. Finalize and execute contract with the Northern Sierra Air Quality Management District.
Start Date: January 7, 2019
Completion Date: February 8, 2019
Deliverable(s): Contract

Task 2. Purchase an all-electric drive shuttle bus that is compliant with American Disabilities Act (ADA) approved wheel chair access.
Start Date: February 15, 2019
Completion Date: March 31, 2019
Deliverable(s): All-Electric Drive Shuttle Bus

Task 3. Install a charging station that incorporates the use of solar power to further reduce the carbon footprint in western Nevada County.
Start Date: March 15, 2019
Completion Date: May 1, 2019

Deliverable(s): Charging Station

Task 4. Operate the Yuba Bus, including consistent, reliable shuttle service from Nevada City to the South Yuba River State Park – Highway 49 Crossing during the summer season. Operations will also include charter events during the Project period.
Start Date: May 17, 2019
Completion Date: October 4, 2019
Deliverable(s): Operations Manual and Log

Task 5. Update the Yuba Bus website to include an interactive educational component on pollution prevention, air emissions reduction, and public safety.

Start Date: February 1, 2019
Completion Date: November 15, 2019
Deliverable(s): Updated Website, Interactive Educational Program for Pollution Prevention, Emissions Reduction, and Public Safety

Task 6. Develop a visual public outreach campaign for Yuba Bus users on pollution prevention, air emissions reduction, and public safety, including a fun fact display for the on-bus flat screen monitor, pamphlets for distribution, and other materials that support a partnership with the Northern Sierra Air Quality Management District.
Start Date: February 1, 2019
Completion Date: November 15, 2019
Deliverable(s): Fun Fact Display, Pamphlets, Partnership Materials

Task 7. Monitor and collect data for distribution to the Northern Sierra Air Quality Management District, City of Nevada City, and Nevada County.
Start Date: May 17, 2019
Completion Date: October 4, 2019
Deliverable(s): Data

FUNDING REQUEST/BREAKDOWN OF COSTS

Task	Deliverable	Funding Requested	Match Funding	Total Cost
1	Contract	-	-	-
2	All-Electric Drive Shuttle Bus	86,000	54,000	$140,000
3	Charging Station	-	5,000	$5,000
4	Operations Manual and Log	-	20,000	$20,000
5	Updated Website, Interactive Educational Program	-	1,500	$1,500
6	Fun Fact Display, Pamphlets, Partnership Materials	-	3,500	$3,500

7	Data		5,000	$5,000
		$86,000	$89,000	$175,000

Equipment to be purchased by AB 2766 DMV Surcharge funds is an all-electric drive shuttle bus. The funding will cover 61% of the cost of this bus and 39% of the cost will be a cash match. The funding provided is directly related to the provision of motor vehicle emissions reductions. Operating costs and education/public outreach costs associated with the Project are included as both a cash and in-kind match. Costs for the Project will be tracked by the Yuba Bus bookkeeper and will be reported to the Northern Sierra Air Quality Management District for the duration of the Project. Yuba Bus has not been awarded AB 2766 funding in the past.

SCHEDULE OF DELIVERABLES/MONITORING PROGRAM

Task	Deliverable	Start Date	End Date
1	Contract	1/7/2019	2/8/2019
2	All-Electric Drive Shuttle Bus	2/15/2019	3/31/2019
3	Charging Station	3/15/2019	5/1/2019
4	Operations Manual and Log	5/17/2019	10/4/2019
5	Updated Website, Interactive Educational Program	2/1/2019	11/15/2019
6	Fun Fact Display, Pamphlets, Partnership Materials	2/1/2019	11/15/2019
7	Data	5/17/2019	10/4/2019

The Project Objectives will be measured and reported throughout the duration of the contract with the Northern Sierra Air Quality Management District, as applicable, with the requirements of the funding program. A monitoring program will be established for the Project to ensure the necessary data are collected to quantify reduction of vehicle trips and vehicle miles traveled. This data will be logged daily during Operations (Task 4). In addition, the number of website visitors will be tracked and reported. Public Outreach materials distributed will be provided to the District and the number of these materials will be reported as well.

EXHIBIT SUMMARY SHEET

Proposing Entity (include other participating entities): Nevada County Community Library

Contact Person: Yolande Wilburn

Address: Madelyn Helling County Library, 980 Helling Way, Nevada City, CA 95959

Phone #: (530) 265-1539 **FAX #:** (530) 265-9863 **EMAIL:** Yolande.Wilburn@co.nevada.ca.us

Total Project Budget:

	AB 2766 Funds	Co-Funding	Total Project Costs
Capital Costs	$ 65,785.00	$ 0.00	$ 65,785.00
Operating Costs	$ 0	$ 13,748.00	$ 13,748.00
TOTAL	**$ 65,785.00**	**$ 13,748.00**	**$ 79,533.00**

Type of Project: (check one)

_X_ Quantifiable Project

___ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide ___

Describe the Implementation Area for the Project (e.g. city, county, region):
County of Nevada

Estimated Emission Reductions: San Juan Ridge Location

A. Emission Reductions (lbs/yr)

Reactive Organic Gases 75.85 Nitrogen Oxides 78.13 PM2.5 28.76

B. Vehicle Miles Traveled (VMT) Reduced 149,760

Single Occupancy Vehicle Trips Reduced 4,992

Cost-effectiveness (San Juan Ridge): **$ 33.13 per pound (AB 2766 Funds Only)**

Estimated Emission Reductions: Chicago Park Location

A. Emission Reductions (lbs/yr)

Reactive Organic Gases 26.60 Nitrogen Oxides 25.54 PM2.5 8.74

B. Vehicle Miles Traveled (VMT) Reduced 45,427

Single Occupancy Vehicle Trips Reduced 2,912

Cost-effectiveness (San Juan Ridge): **$ 73.45 per pound (AB 2766 Funds Only)**

C. Number of people reached per day through public education (both location): The Library will provide marketing materials for customers at each of 5 branch library circulation desks and will also advertise the service through the Library's page on the County website, through announcements in the newspaper and Friends of the Library newsletters, as well as on local radio shows. In addition, there will be targeted publicity campaigns in Chicago Park and the San Juan Ridge to let people know about the new service locations.

Brief Project Description: Purchase holds locker systems for the circulation of library materials in remote areas

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: **Nevada County Community Library**

Please complete and attach this checklist with your application.

X	Exhibit Summary Sheet – page 1-2
X	Request for Proposal Contents Checklist - page 3
X	Authorization Letter/Resolution - page 4
X	Project Description – page 5
X	Project Organization/Background – pages 5-6
X	Emissions Benefits/Cost-Effectiveness – pages 6
X	Work Statement – page 7
X	Funding Request/Breakdown of Cost – page 7-8
X	Schedule of Deliverables/Monitoring – page 8
X	All Pages Numbered
X	One Original

(CHECK ONE ONLY)

X	Quantifiable Project

- OR -

	Reduced Emission Vehicles Project

COUNTY OF NEVADA
COUNTY EXECUTIVE OFFICE
Eric Rood Administrative Center
950 Maidu Avenue
Nevada City, CA 95959
(530) 265-7040
Fax 265-9839
E-MAIL: ceo@co.nevada.ca.us

July 27, 2018

Northern Sierra Air Quality Management District
Joseph Fish
200 Litton Drive, Suite 320
Grass Valley, CA 95945

SUBJECT: Authorization for the Nevada County Library to submit a formal grant proposal for the use of AB 2766 DMV Surcharge funds for the 2018-2019 grant project cycle on behalf of the County of Nevada.

BACKGROUND: The Nevada County Library System is submitting a formal grant proposal to provide two holds locker systems to library patrons in the San Juan Ridge and Chicago Park Communities. With AB2766 DMV grant funding, the Nevada County Library would purchase a 24-locker system to be located at our San Juan Ridge Service location and a 14-locker system to be located at Chicago Park Elementary School. We anticipate that each locker will be filled twice per week, saving 76 library users per week from driving to a branch to pick up books and other materials. The initial grant proposal is for the amount of $65,785.00.

AUTHORIZATION: I hereby authorize, on behalf of the Board of Supervisors of the County of Nevada, the submittal of Nevada County Library's formal grant proposal to NSAQMD for the use of AB2766 DMV Surcharge Funds for the 2019 grant period. The total grant-funding proposal is for the amount of $65,785.00.

Richard A. Haffey
County Executive Officer
County of Nevada

7/31/18
Date

Contact information for Nevada County Library System is listed below:

Nevada County Library
980 Helling Way
Nevada City, CA 95959

Contact person:

Yolande Wilburn
County Librarian
(530) 265-1539
Yolande.Wilburn@co.nevada.ca.us

D. PROJECT DESCRIPTION

Brief Project Description:
The Nevada County Community Library would like to purchase two holds locker systems, one for Chicago Park and one for the San Juan Ridge, that will enable library users to have books or other items transferred from any Nevada County Community Library branch to a location convenient to them for check-out. Holds locker systems combine secure storage with the ability to interface with the Library's circulation software. Library users request materials from one of the library branches and the materials are transported to a convenient site and placed in the lockers. Only the requestor's library card can be used to release the materials for check-out. People in Chicago Park and on the San Juan Ridge are not within easy reach of our library branches due to distance, lack of transportation, and other factors. The holds locker solution is intended to provide access to library materials closer to our users' homes, thereby reducing vehicle trips to and from a library branch.

Using grant funds, the Nevada County Community Library would like to purchase a 24-locker system to be located at the San Juan Ridge Community Library and a 14-locker system to be located at Chicago Park School. Each locker can hold several items for the same cardholder. Based on the experiences of other library systems use of lockers, we anticipate that each locker would be filled twice per week, saving 76 library users per week from driving to a library branch to pick up books and other materials.

Nevada County Community Library will be using the California Air Resources Board's "Method for Finding Cost Effectiveness of Funding Air Quality Projects-2005 Edition," "Telecommunications" section to determine the amount of emissions that will be reduced by eliminated trips to County library branches.

Scope of Work
The main activity in the grant proposal is the purchase and installation of the two holds locker systems. The Nevada County Community Library will provide in-kind staff time to purchase, install, and maintain the holds lockers; to fill the lockers twice a week with requested holds and collect returned items; and to oversee, track and report on the program to the Northern Sierra Air Quality Management District.

E. PROJECT ORGANIZATION/BACKGROUND

As stated in the 2017 Nevada County Community Library Strategic Plan, the strategic vision of the Nevada County Library System is to be a center of enrichment in a strong, empowered, and literate rural community. The Library's mission is to create an inclusive environment that fosters discovery; connects our community with innovative opportunities, and inspires lifelong learning and personal growth. Four of the Library's five strategic priorities relate directly to the holds locker project: patron experience (providing an outstanding library experience for everyone), access (providing equal access to the library and its resources for all), enrichment (connecting people to information and experiences that help them to learn and grow), and technology (embracing technologies that improve our libraries and empower our community).

For the past AB 2766 grants, the Library tracked expenses, prepared reports, designated staff to take on tasks, and promoted the programs. In addition to overall grant management and oversight, the County Librarian will coordinate the purchase and installation of the holds lockers, while the County's Information Services and Facilities departments will prepare the sites and do the actual work of installing the systems. A Library Technician will design and conduct community outreach efforts to promote the holds lockers in the two communities. A Library Assistant will be responsible for filling the lockers and collecting returned items.

The County Librarian will provide the estimates of emissions reductions for our proposal and final report with help from the staff of the County's Information Systems department. The Library's VERSO catalog contains a host of statistical data regarding use of library materials from which best guess data estimates will be gathered regarding one way mileage trips by patrons to nearby libraries. Staff will then utilize the Air Resources Board "Method for Finding Cost Effectiveness" database and manual to compute emissions reductions and project cost effectiveness.

The Library has an Accounting Technician who will track expenses, both grant-funded and in-kind. The grant will be assigned a specific project code that will be used to flag expenses in the County's accounting system and staff hours in our payroll system.

F. EMISSION BENEFITS/COST EFFECTIVENESS

The Nevada County Library grant project is seeking to reduce the number of visits by library users to the five circulating library locations. This reduction will occur by offering residents of Chicago Park and the San Juan Ridge areas of Nevada County the option of picking up requested items close to their homes, rather than driving to a library branch. Residents will be able to return their items at the same convenient location.

Emissions Summary
Detailed calculations of the emissions reductions are included in Appendix A of this document. A summary of the project is given below:

	San Juan Ridge	Chicago Park
Annual Auto VMT Reduced	149,760	45,427
Annual Emission Reductions, based on Table 3, 2010 emission factors, double the Annual Auto Trips and round-trip miles.		
Annual Emission Reduction - ROG (lbs/year)	75.85	26.60
Annual Emission Reduction - Nox (lbs/year)	78.13	25.54
Annual Emission Reduction – PM2.5 (lbs/year)	28.76	8.74
Total Emissions reduction (All) (lbs/year)	182.75	60.88
Cost-Effectiveness of Funding Dollars (dollars/lb)	$33.13	$73.45

G. WORK STATEMENT

Beginning January 1, 2019 and ending December 31, 2019, grant funds will be used to:

- Purchase a 24-locker holds locker system for the San Juan Ridge area
- Purchase a 14-locker holds locker system for Chicago Park

Co-funding (In-Kind) funds will be used for:

- Preparation of sites for installation of holds locker systems
- Installation of holds locker systems
- Targeted community outreach regarding the convenience of the holds lockers and how to use them
- Bringing requested items to the holds lockers and collecting returned materials
- Project management

A sign will be placed at each location notifying the public that the holds locker project was funded by the Northern Sierra Air Quality District using AB 2766 DMV Surcharge Funds.

G. FUNDING REQUEST/ BREAKDOWN OF COSTS

Item	Amount	Funding Source	Description
24-locker holds locker	$37,835	AB 2766	For San Juan Ridge
14-locker holds locker	$27,950	AB 2766	For Chicago Park
Administrative costs – County Librarian	$3,716	In-kind	Purchasing holds lockers; overseeing installation; managing grant
Administrative costs – Library Technician	$881	In-kind	Community outreach to promote holds locker systems
Library Assistant I	$6,215	In-kind	Filling lockers and collecting returned items twice per week
Information Systems Analyst	$2,436	In-kind	Installation of holds lockers; ongoing maintenance

Total project cost: $79,533 ($65,785 funded by AB 2766 grant; $13,748 in-kind)

Itemized List of Equipment to be Purchased

Equipment	Cost	Percentage of AB 2766 Funds
24-locker holds locker	$37,835	58%
14-locker holds locker	$27,950	42%

No operating costs will be funded by the requested AB 2766 grant.

If this grant request cannot be fully funded, alternative funding levels are possible. The grant request is based on purchasing holds lockers that are wrapped with graphics. However, the holds lockers can also be purchased unwrapped (i.e., without graphics). Other possibilities include purchasing different combinations of wrapped or unwrapped lockers. The costs of the different scenarios are as follows:

- Purchase two 14-locker wrapped holds lockers ($55,900)
- Purchase two 14-locker unwrapped holds lockers ($53,750)
- Only purchase one wrapped holds locker, for the San Juan Ridge ($37,835)
- Only purchase one unwrapped holds locker for the San Juan Ridge ($35,500)
- Only purchase one wrapped holds locker, for Chicago Park ($27,950)
- Only purchase one unwrapped holds locker for Chicago Park ($26,875)

The Library's Accounting Technician will set up an identifying project cost number (PCN) for this grant. Records for purchases made with grant funds and time entries for staff hours used to complete the grant activities will contain this unique PCN, making all grant-funded and in-kind costs easily trackable.

I. SCHEDULE OF DELIVERABLES/MONITORING PROGRAM

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Preparation of sites for installation	x	x	x	x	x	x						
Installation of holds lockers							x					
Targeted community outreach							x	x	x	x	x	x
Delivery and collection to/from holds lockers							x	x	x	x	x	x
Project management	x	x	x	x	x	x	x	x	x	x	x	x

The technology in the holds locker system will capture various data concerning its use, such as the number of library users who collect materials from the lockers, in order to measure the effectiveness of the project.

APPENDIX A: EMISSIONS CALCULATIONS AND ASSUMPTIONS

SAN JUAN RIDGE

NSAQMD AB 2766 Grant	**Nevada County**
Grant Year:	2019
Department Name:	Library
Grant Name:	Holds Lockers - San Juan Ridge
Grant Funding Amount	$37,835
In-Kind Funding amount	$6,874
Total Project Funding amount	$44,709
Effectiveness Period (LIFE)	7.00
Capital recovery factor	0.16
Average Miles per trip (one-way)	15.00
One Way Vehicle Trip Reductions per year	**4,992**
Annual Miles travelled, round trips	149,760.00
Average Auto Emissions Factors (ARB 2013 from table 3)	
ROG - Average Trip ends (g/trip end)	0.584
ROG - Auto VMT factor (grams/mile)	0.191
NOx - Average Trip ends (g/trip end)	0.298
NOx - Auto VMT factor (grams/mile)	0.217
PM2.5 - Average Trip ends (g/trip end)	0.003
PM2.5 - VMT factor (grams/mile)	0.087
Annual Emission Reduction - ROG (lbs/year)	75.85
Annual Emission Reduction - Nox (lbs/year)	78.13
Annual Emission Reduction - PM2.5 (lbs/year)	28.76
Total Emissions reduction (All) (lbs/year)	182.75
Cost-Effectiveness of Funding Dollars ($$/lb)	**$33.13**

CHICAGO PARK

NSAQMD AB 2766 Grant	**Nevada County**
Grant Year:	2019
Department Name:	Library
Grant Name:	Holds Lockers - Chicago Park

Grant Funding Amount	$27,950
In-Kind Funding amount	$6,874
Total Project Funding amount	$34,824
Effectiveness Period (LIFE)	7.00
Capital recovery factor	0.16
Average Miles per trip (one-way)	7.80
One Way Vehicle Trip Reductions per year	**2,912**
Annual Miles travelled, round trips	45,427.20
Average Auto Emissions Factors (ARB 2013 from table 3)	
ROG - Average Trip ends (g/trip end)	0.584
ROG - Auto VMT factor (grams/mile)	0.191
NOx - Average Trip ends (g/trip end)	0.298
NOx - Auto VMT factor (grams/mile)	0.217
PM2.5 - Average Trip ends (g/trip end)	0.003
PM2.5 - VMT factor (grams/mile)	0.087
Annual Emission Reduction - ROG (lbs/year)	26.60
Annual Emission Reduction - Nox (lbs/year)	25.54
Annual Emission Reduction - PM2.5 (lbs/year)	8.74
Total Emissions reduction (All) (lbs/year)	60.88
Cost-Effectiveness of Funding Dollars ($$/lb)	**$73.45**

Project Assumptions (Both Locations)
Formulas used to calculate the estimated emission reductions from the project, and the related factor tables, are taken from the California Air Resources Board (ARB) "Methods to Find the Cost-Effectiveness of Funding Air Quality Projects." The same source is used to determine the cost-effectiveness of this project.

Calculating annual emissions reductions for this project was based upon how many miles to and from a particular branch library location a library user traveled. Online mapping applications were used to calculate the mileage between each proposed holds locker location and the

Madelyn Helling Library in Nevada City. This resulted in an average number of miles per trip from Chicago Park of 7.8 miles and 15 miles from the San Juan Ridge.

We anticipate that each locker would be filled twice per week, saving 76 library users per week the drive to a library branch. Two two-way trips were estimated for each holds locker per week – one to pick up the held materials and another to return them.

The useful life of the holds locker systems is estimated to be seven years.

Exhibit Summary Sheet

Proposing Entity: Foster & Son Trucking, Inc.

Contact person: Marsha Foster

Address: P.O. Box 1818 Nevada City, Ca. 95959

Phone: 530 265 2153 Fax: 530 272 6275 Email: ronmarsha@gmail.com

TOTAL PROJECT BUDGET:`	AB2766 funds	Co-funding	Total Project Costs
Capital Costs	26,456.82	4,000.00	22,456.82

Type of Project:

✓ Quantifiable Project

___ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide ✓

Describe the Implementation Area for the Project. Nevada,Sierra, Placer, Yuba Counties

Estimated Emission Reductions:

A. Emission Reductions (lbs/yr)
Reactive Organic Gases___ Nitrogen Oxides____ PM _____

B. Vehicle Miles Traveled (VMT) reduced _____
Single Occupancy Vehicle Trips Reduced _____

C. Number of people reached per day through public education_____

Cost-effectiveness: $ 93.68 per pound (AB2766 funds only)

Brief Project Description: Replace two DPF filters that are not working properly

AUG 1 5 2018

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: Foster & Son Trucking, Inc.

Please complete and attach this checklist with your application.

- [x] Exhibit Summary Sheet - page 1
- [x] Request for Proposal Contents Checklist - page 2
- [x] Authorization Letter/Resolution - page 3
- [x] Project Description - page 4
- [x] Project Organization/Background - page 5
- [x] Emissions Benefits/Cost-Effectiveness - page 6
- [x] Work Statement - page 7
- [x] Funding Request/Breakdown of Cost - page 8
- [x] Schedule of Deliverables/Monitoring - page 9
- [x] All Pages Numbered
- [ ] Proposal, One Original n/A
- [x] (CHECK ONE ONLY) Quantifiable Project

- OR -

- [ ] Reduced Emission Vehicles Project

Northern Sierra Air Quality Management District

Gretchen Bennitt, Executive Director

DISTRICT HEADQUARTERS
200 Litton Drive, Suite 320
Grass Valley, CA 95945
(530) 274-9360 / FAX: (530) 274-7546
www.myairdistrict.com

NORTHERN FIELD OFFICE
257 E. Sierra, Unit E
Mailing Address: P.O. Box 2227
Portola, CA 96122
(530) 832-0102 / FAX: (530) 832-0101

June 27, 2018

Foster & Son Trucking, Inc
Marsha Foster, Owner
P.O. Box 1818
Nevada City, CA 95959-

Dear Marsha Foster:

Congratulations. It has been determined that your screening proposal for the AB 2766 DMV Surcharge program:

the purchase of two new diesel particulate filters for trucks,

is eligible to participate in the Request for Proposal (RFP) process. Please go to our web site and download the appropriate forms. The specific link is:

http://myairdistrict.com/index.php/grants-incentives/ab-2766-dmv-funds/

Please return your completed application to the Air District no later than 4 PM on September 4, 2018. Email submission is preferred whenever possible. The Air District will notify you of the time and place that your proposal will be considered by the Air District Board of Directors.

Your cooperation in this matter is greatly appreciated. If you have any questions, please do not hesitate to contact me at (530) 274-9360 ext 103 or at joe@myairdistrict.com.

Sincerely,

Joseph Fish
Deputy Air Pollution Control Officer

FOSTER & SON TRUCKING, INC.
P.O. BOX 1818
NEVADA CITY, CA. 95959
530 265 2153

July 26, 2018

PROJECT DESCRIPTION :

Replace two (2) failed DPF filters that were previously installed on two of our Peterbilt Trucks. We have found that these filters are only lasting a few years and not as long as Originally stated by the manufacturer. We have maintained the filters as required but the Constant wear and tear in this foothills region along with the condensation in the air is making these filters not the perfect solution for our line of work in our type of weather. The manufacturer will not warranty these products.

Marsha Foster - owner

FOSTER & SON TRUCKING, INC.
P.O. BOX 1818
NEVADA CITY, CA. 95959
530 265 2153

PROJECT ORGANIZATION/BACKGROUND

Foster & Son Trucking, Inc., has been in business in Nevada County under various Occupations since 1936. In 1971 we purchased our first truck and have continued With the dump trucking industry ever since. We expanded to include sales of parts, Hydraulic hose repair (retail and wholesale) , landscape materials , and the sand And gravel industry.
At the present time we have a total of six (6) dump trucks of various kinds that keep us Fairly busy throughout the year. It is an extremely stressful type of business, but the joys Of working with the majority of customers and employees' makes it all worthwhile.

Background (Air Quality Improvements)

We wish to replace two(2) DPF filters in two (2) trucks that have failed. We are finding That these filters, that are required in older trucks, are not lasting as long as stated in the Original purchase. We have all the documentation on the cleaning on these filters as Required, yet they are still not holding up to the original statements by the manufacturer. We are hoping that AB 2766 can help us replace these filters.

The mileage and hours and all work orders are logged into our computer system. We can Keep track this way of any changes in the vehicles. This is entered on a daily basis.

The preparation and management of this project will be handled by our own people. Owners and employees.

Applicant: Foster & Son Trucking

DPF Emissions Worksheet/Cost Effectiveness

DPF MFR: Hug Filtersystems Mobiclean R

DPF Control Efficiency: 99%

Cost per DPF (as of 8/3/18) $13,228.41 Includes tax and install

Total DPFs purchased: 2

Project Life: 5 years

Capitol Recovery Factor: .22

Total Project Funding Amount: $26,456.82

In-Kind Funding Amount: $4,000.00

Grant Funding Amount: $22,456.82

Cost Effectiveness of Funding Dollars ($$/lb): 93.68

	Annual Mileage	PM EMFac (g/mile)*	Grams per year of PM	lbs per year of PM
Truck # 1 F 1037	55755	.23	12,823.65	28.25
Truck # 2 F 73	49394	.23	11,360.62	25.02
TOTALS	105149		24,184.27	26.93
Pounds per year of PM reduced				52.7366

Used the 2013 Emission Factors Table 5D (Heavy Duty)

WORK STATEMENT

Applicant: Foster & Son Trucking

August 2018: Request Quote from dealers for 2 DPF Filters Hugg R40

After approval from the Northern Sierra Air Quality Management Air District we will be:

1-After comparing quotes, get filters ordered and received

2- Take Truck to Lightfoot Truck Repair (our regular outside mechanic) and have, Filters installed

3- Take delivery of trucks and start logging odometer readings on all work orders, as is Usually done, so calculations can be taken and used for records

4-Receive invoice from supplier and installer

5-Install on each vehicle decals stating that the Diesel Exhaust Filter on this truck was partially funded by NSAQMD utilizing DMV surcharge Funds to improve local air Quality.

6- send final report and claim for payment along with invoices to NSAQMD

FUNDING REQUEST/ BREAKDOWN OF COST

APPLICANT: Foster & Son Trucking, Inc.

	AB2766Cost	FosterCost	Total
Truck F1037	13,228.41	2,000.00	11,228.41
Truck F73	13,228.41	2,000.00	11,228.41
Grand Totals	26,456.82	4,000.00	22,456.82

Both of these trucks are monitored using our truck repair computer program on a daily or Weekly basis, so each truck's mileage and fuel use (among other items) are logged to help with Any needed calculations.

These are the current pricing for the replacement Hug 240 DPF filters as of August 1, 2018. Pricing has increased a few thousand dollars each since my quote the past spring, so we are Figuring that the pricing will change (and of course increase) by the January 2019 date.

Schedule of Deliverables/ Monitoring Program

Applicant: Foster & Son Trucking

We will be collecting data (mileage) for both of the trucks that receive new Diesel Particulate Filters, funded by AB2766 funds. Miles, hours and fuel usage are tracked and Entered into our trucking maintenance program, so that the cost effectiveness of the filters Can be calculated as necessary.

Schedule :

When approved we will order the replacement Diesel Particulate Filters

When delivered and installed we will continue to monitor mileage and hours in each truck Into our truck maintenance program.

A Final Report and Claim for payment will be sent at this point.

FOSTER & SON TRUCKING, Inc.
P.O. Box 1818
Nevada City, Ca. 95959
530-265-2153 fax 530-272-6275

August 14, 2018

Northern Sierra Air Quality Management District
Attn: Joe Fish
200 Litton Drive # 320
Grass Valley, Ca. 95945

Re: Ab 2766

I have completed to the best of my knowledge the information needed to support Receiving funds from AB2766. If I have left anything out or you need any other Information please let me know. As I have reiterated in the paperwork, these filters Are not withstanding the wear and tear of a dump truck in the mountains. We will Very soon need more replaced and I don't want to compromise that opportunity. Thank you for this much needed opportunity to help us financially with the filter Replacements.

Marsha Foster

Marsha Foster - owner

Applicant: Foster & Son Trucking

DPF Emissions Worksheet/Cost Effectiveness

DPF MFR: Hug Filtersystems Mobiclean R

DPF Control Efficiency: 99%

Cost per DPF (as of 8/3/18) $13,228.41 Includes tax and install

Total DPFs purchased: 2

Project Life: 5 years

Capitol Recovery Factor: .22

Total Project Funding Amount: $26,456.82

In-Kind Funding Amount: $4,000.00

Grant Funding Amount: $22,456.82

Cost Effectiveness of Funding Dollars ($$/lb):

	Annual Mileage	PM EMFac (g/mile)*	Grams per year of PM	lbs per year of PM
Truck # 1 F 1037	55755	.23	12,823.65	28.27
Truck # 2 F 73	49394	.23	11,360.62	25.04
TOTALS	105149		24,184.27	53.31
Pounds per year of PM reduced				52.77

Used the 2013 Emission Factors Table 5D (Heavy Duty)

Exhibit Summary Sheet

Proposing Entity: Foster & Son Trucking, Inc.

Contact person: Marsha Foster

Address: P.O. Box 1818 Nevada City, Ca. 95959

Phone: 530 265 2153 Fax: 530 272 6275 Email: ronmarsha@gmail.com

TOTAL PROJECT BUDGET:`	AB2766 funds	Co-funding	Total Project Costs
Capital Costs	26,456.82	4,000.00	22,456.82

Type of Project:

___ Quantifiable Project

___ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide ____

Describe the Implementation Area for the Project. Nevada,Sierra, Placer, Yuba Counties

Estimated Emission Reductions:

A. Emission Reductions (lbs/yr)
   Reactive Organic Gases___ Nitrogen Oxides____ PM _____
B. Vehicle Miles Traveled (VMT) reduced _____
   Single Occupancy Vehicle Trips Reduced _____
C. Number of people reached per day through public education_____

Cost-effectiveness: $_____per pound (AB2766 funds only)

Brief Project Description:

USER: PLEASE only enter data into the shaded cells. DO NOT do any copying and pasting within the spreadsheet.

DPF Emission Worksheet

DPF Mfr:	Hug Filtersystems Mobiclean R	
DPF Control Efficiency:	99%	
Cost per DPF:	$ 13,228.41	
Total DPFs Purchased:	2	
Project Life:	5	years
Capitol Recovery Factor:	0.22	
Total Project Funding amount:	26,456.82	
In-Kind Funding amount:	$ 4,000.00	
Grant Funding Amount:	$ 22,456.82	
Cost-Effectiveness of Funding Dollars ($$/lb):	**$ 93.68**	

Capitol Recover Factors

1 year	1.03
3 years	0.35
5 years	0.22
7 years	0.16
10 years	0.12
12 years	0.10
15 years	0.08
20 years	0.07

Grant Funding Amount:

	Annual Mileage	PM EmFac (g/mile)**	Grams per year of PM	lbs per year of PM
Truck #1:	55755	0.23	12823.7	28.25
Truck #2:	49394	0.23	11360.6	25.02
Truck #3:	0	0	0	0
Truck #4:	0	0	0	0
Totals:	105149		24184.3	53.2693

Pounds per year of PM reduced: 52.7366

**Emfac obtained from Table 5D of CARB 2013 Emission Factors (Heavy Duty)

EXHIBIT SUMMARY SHEET

Proposing Entity (include other participating entities)

Nevada City Police Department

Contact Person: Chad E. Ellis, Police Lieutenant

Address: 317 Broad St., Nevada City, Ca. 95959

Phone# 530-265-4700

Total Project Budget:

	AB2766 Funds	**Co-Funding**	**Total Projects Costs**
Capital Costs	$25,000.00	$12,000.00	$37,000.00
Operating Costs	$_____	$_____	$_____
TOTAL:	$_____	$_____	**$37,000.00**

Type of Project: (check one)

__XX__ Quantifiable Project

_____ Reduced Emission Vehicle Project

Implementation Area for Project: Check if District-wide ____

Describe the Implementation Area for the Project (eg. City, county, region):

Nevada City, Nevada County

Estimated Emissions Reductions:

A. Emission Reductions (lbs/yr)
   Reactive Organic Gases 8.80 Nitrogen Oxides 9.41 PM_{10} 4.98
B. Vehicle Miles traveled (VMT) reduced _____
   Single Occupancy Vehicle Trips Reduced _____
C. Number of people reached per day through public education

Cost-effectiveness: $129.31per pound (AB2766 Funds Only)

Brief Project Description: Purchasing a 2018/19 Ford Fusion and eliminate the use of a department gasoline powered vehicle (2011 Ford Crown Victoria) during basic patrol and enforcement activities

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: Nevada City Police Department

Please complete and attach this checklist with your application.

- [x] Exhibit Summary Sheet – page 1-1
- [x] Request for Proposal Contents Checklist – page 2-1
- [x] Authorization Letter/Resolution – page 3
- [x] Project Description – page 4
- [x] Project Organization/Background – page 4-5
- [x] Emissions Benefits/Cost-Effectiveness – page 5
- [x] Work Statement – page 5
- [x] Funding Request/Breakdown of Cost – page 6
- [x] Schedule of Deliverables/Monitoring – page 7
- [x] All Pages Numbered
- [ ] 3 Copies of Proposal, One Original EMAILED

CHECK ONLY ONE

- [x] Quantifiable Project
- [ ] Reduced Emission Vehicle Project

Authorization Letter

This letter will serve as authorization for Lieutenant Chad Ellis of the Nevada City Police Department to submit a grant proposal to the:

Northern Sierra Air Quality Management District

200 Litton Drive, Suite 320

Grass Valley, Ca 95945

Att: Joe Fish

The official parties below shall agree that they are aware of this document and give approval for this grant proposal to be submitted on their behalf on September 4th, 2018.

Catrina Olson

Catrina Olson

City Manager for Nevada City

Date: 8/28/18

Loree McCay

Finance Director for Nevada City

Date: 8/28/18

PROJECT DESCRIPTION

The proposed project consists of purchasing a Ford Fusion hybrid vehicle to eliminate the use of a department gasoline powered vehicle (2011 Ford Crown Victoria) during targeted traffic enforcement activities, basic patrol activities and administrative functions (i.e attending trainings and meetings). The Ford Fusion Hybrid vehicle will provide socially responsible vehicle use by reducing the use of a department gas powered vehicle, eliminating gas and oil spills, reducing overall vehicle emissions, dropping fuel consumption during the above mentioned activities.

Vehicle	Miles per Gallon*	Estimate of miles used daily/yearly	Cost of fuel @ $4.00/gallon Daily/yearly	Savings Using Ford Fusion Hybrid
2011 Ford Crown Victoria Patrol Vehicle	16 city/24 Hwy 19 Combined	100 / 26,000	$25.00 per day $6,500.00 per year	
		Fuel Total		$21.28 per day $5532.80 per year (based on 5 days a week)
2018/19 Ford Fusion Hybrid	43 city/41 Hwy 42 Combined	40 / 10,400	$3.72 per day $967.00 per year	

According to the U.S. Government carbon dioxide emissions rating, the current Nevada City patrol vehicle has the low rating of a 2. The new Ford Fusion Hybrid vehicle is rated in the highest category with a rating of a 10.

The **monthly** saving by using the Ford Fusion Hybrid in reduced fuel bills would be **$461.06**

Based on the California Air Resources Board standardized method for calculating reductions (as requested from the website www.myairdistrict.com) the cost-effectiveness for this project is **$129.31** per pound for the 2011 Ford Crown Victoria.

PROJECT ORGANIZATION/BACKGROUND

The Nevada City Police Department is housed within City Hall and provides police services to the city of Nevada City including, patrol, investigations, crime prevention, traffic enforcement, parking enforcement, drug education, and other public safety services. The department is staffed by a Chief, two Lieutenants, seven patrol officers, one detective, one Community

Service officer, three parking enforcement officers, one clerk and four Reserve Police Officers for a total of 20 employees.

Technical capabilities available to the proposer for preparing estimates of emissions and reductions for the proposal and reporting will utilize MS ACCESS and the California Air Resources Board's Methods to find the Cost 'Effectiveness of the Air Quality Projects program.

All accounting for the purposes of tracking costs and funding will be performed by the Nevada City Assistant City Manager / Finance Department. The city's Finance Department has 16 combined years in tracking cost and funding for grant awards on an on going basis.

EMISSION BENEFIT/COST EFFECTIVENESS

The estimated lifetime emission reduction of NOx, ROG and PM10 are as follows:

Vehicle	ROG	Nox	PM10
2011 Ford Crown Victoria	290 lbs	130 lbs	50 lbs

The 2011 Ford Crown Victoria is a marked patrol vehicle used 5 days a week in any condition.

WORK STATEMENT (01/01/19 – 03/01/19)

Phase 1: Purchase Vehicle from Dealer: Auburn Ford; Ford North American Fleet Authorized dealership; 1650 Grass Valley Highway Auburn, Ca. 95603

Phase 2: Purchase and install necessary accessories; emergency lights, siren, police radio; Cop Shop, 1257 Hassett Ave #D, Yuba City Ca. 95991

Relevant information about the technology and parties involved in this project: Police Lieutenant Chad Ellis is the grant writer for this proposal. City Manager: Catrina Olson, Finance Manager: Loree McCay, Police Chief Jim Leal have all approved this proposal. Finance Manager Loree McCay, along with her internal finance department personnel will oversee the management of the grant once approved and funded. Lieutenant Ellis will handle the steps in the process of obtaining the new vehicle and that the police accessories are properly installed prior to official use.

PUBLIC ACKNOWLEDGEMENT/RECOGNITION

The Department will issue press releases to the Union Newspaper, local radio stations KNCO and KVMR and county blog Yubanet to recognize the generous grant from the Northern Sierra Air Quality Management District utilizing DMV Surcharge Funds. In addition, to show our

gratitude to the Northern Sierra Air Quality Management District and support of the California Clean Air Act, a District logo will be affixed to the Ford Fusion

FUNDING REQUEST/BREAKDOWN OF COSTS

Project Phase Costs

Phases	Action	Cost	Funding Amount	Funding Sources
1	Purchase Ford Fusion	$22,500.00	$22,500.00	Northern Sierra AQMD
	Tax and License	$2500.00	$2500.00	Northern Sierra AQMD
2	Purchase lights Radio and other police equipment	$10,000.00	$10,000.00	Internal Department Funding
	Installation of equipment	$2,000.00	$2,000.00	Internal Department Funding

Ford Fusion Cost

Funding – 2018/2019 Ford Fusion Hybrid	
AB2766	$25,000.00
In Kind Contributions	$10,000.00 ; Nevada City to cover (Asset Forfeiture Funds) to cover equipment. $2,000.00 installation costs to be covered by Nevada City Measure C funds.
Administrative and Project Management Costs	Staff costs absorbed by the current Nevada City Finance Department

Co-Funding Sources

Co-funding for this project will come from a variety of sources such as asset forfeiture and Nevada City Measure C funds.

The procedures that will be used to monitor and track costs against those approved in the grant, in this proposal is that we have initiated contact with Auburn Ford and the Cop Shop in Yuba City and have obtained official product/service bid sheets that were necessary to determine the final monetary request. Once approved, Lieutenant Ellis and City Manager Olsen

will deal directly with each business to finalize the project with regards to purchasing the vehicle and installation of the accessories.

SCHEDULE OF DELIVERABLES/MONITORING PROGRAM

Task	Date	Person
Order Ford Fusion from Auburn Ford	January 1st 2019 or soon thereafter	Lt. Ellis
Pick up Ford Fusion from dealership	Once notified by Dealership (estimate 4 weeks after order)	Lt. Ellis or designated police personnel
Monthly finance report for reimbursement	February 1st 2019	Project Manager/Finance Manager
Ford Fusion to Cop Shop for radio, light and equipment installation	End of February (estimate 1-2 week for completion)	Lt. Ellis or designated police personnel
Monthly finance report for reimbursement	March 1st 2019	Project Manager/Finance Manager
Pick up Ford Fusion from Cop Shop	Early March once notified by Cop Shop that work is completed	Lt. Ellis or designated police personnel
Photo Opportunity and placing of NSAQMD sticker on vehicle with NCPD and NSAQMD for Union Newspaper article	Upon completion of project with availability of both parties	City Manager, Chief of Police and representatives of the NSAQMD
Public Service Announcements recorded	Upon completion of project	Chief of Police/Lt. Ellis
Begin Mileage log to submit to Project Manager/Finance Director	Document use of Ford Fusion	Any and all drivers
1st Quarter Monitoring Report AND Final Financial Report for Reimbursement	April 1st 2019	Project Manager/Finance Manager
2nd Quarter Monitoring Report	July 1st 2019	Project Manager/Finance Manager
Midway Monitoring Report	July 31st, 2019	Project Manager/Finance Manager
3rd Quarter Monitoring Report	October 31st, 2019	Project Manager/Finance Manager
4th Quarter Monitoring Report	December 31st, 2019	Project Manager/Finance Manager

ON-ROAD PROJECTS Fiscal Year 2018 – 19

Subcategory: (1d) Electric Vehicle Purchases

Air District Name: Northern Sierra AQMD

Local Government Name: Not Applicable

Project Name: AB 2766 DMV Funds

Description: Purchase one Ford Fusion Hybrid to offset miles currently driven by department gasoline powered vehicle (Crown Victoria)

Implementing Agency: Nevada City Police Department **Private Agency:** No

FUNDING:

MVFEES Funding: $25,000

MSCR Funding: $0.0

Moyer Funding: $0.0

CMAQ Funding: $0.0

Other Co-Funding $12,000

Capital Recovery Factor: 0.12

Project Analysis Period: 10 years

Vehicle Miles Travelled (VMT): 10,400 annually

EMISSION FACTORS:

	Baseline Vehicle Emission Factors	Cleaner Vehicle Emission Factors
ROG:	.153 grams per mile	0.0074 grams per mile
NOx:	0.172 grams per mile	0.0234 grams per mile
PM10:	0.087 grams per mile	0.00 grams per mile

EXHIBIT SUMMARY SHEET

Proposing Entity (include other participating entities):
Bear Yuba Land Trust (BYLT)

Contact Person: Erin Tarr, Bear Yuba Land Trust Co. ED

Address: PO Box 1004, Grass Valley, CA 95945

Phone #: 530-272-5994 ext. 205 **FAX #:** 530- **EMAIL:** erin@bylt.org

Total Project Budget:

	AB 2766 Funds	Co-Funding	Total Project Costs
Capital Costs	$ 7,000	$ n/a	$ 7,000
Operating Costs	$	$ n/a	$
TOTAL	$ 7,000	$ n/a	$ 7,000

Type of Project: (check one)

___ Quantifiable Project

✓ Reduced Emission Vehicles Project

Implementation Area for Project: Check if District-wide ✓

Describe the Implementation Area for the Project (e.g. city, county, region):
Nevada County

Estimated Emission Reductions:

A. Emission Reductions (lbs/yr)

Reactive Organic Gases 10.69 Nitrogen Oxides 10.73 PM_{10} 3.85

B. Vehicle Miles Traveled (VMT) Reduced 20,050

Single Occupancy Vehicle Trips Reduced 875

C. Number of people reached per day through public education 3000+

Cost-effectiveness: $ 96.95 **per pound (AB 2766 Funds Only)**

Brief Project Description:
BYLT seeks to reduce emissions and support the health of the air quality in Nevada County by encouraging telecommuting amongst BYLT staff. In order to do so, BYLT requests funding from NSAQD for the necessary equipment for long term implementation.

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: Bear Yuba Land Trust

Please complete and attach this checklist with your application.

- [x] Exhibit Summary Sheet - page 1
- [x] Request for Proposal Contents Checklist - page 2
- [x] Authorization Letter/Resolution - page 3
- [x] Project Description - page 4
- [x] Project Organization/Background - page 4
- [x] Emissions Benefits/Cost-Effectiveness - page 5 / Appendix A, 7
- [x] Work Statement - page 5
- [x] Funding Request/Breakdown of Cost - page 5
- [x] Schedule of Deliverables/Monitoring - page 6
- [x] All Pages Numbered
- [x] Proposal, One Original

(CHECK ONE ONLY)

- [ ] Quantifiable Project

- OR -

- [x] Reduced Emission Vehicles Project

Attachment 2 – 1

Bear Yuba
LAND TRUST

September 4, 2018

Joseph Fish
Deputy Air Pollution Control Officer
Northern Sierra Air Quality Management District
200 Litton Drive, Suite 320
Grass Valley, CA 95945

Dear Joe,

On behalf of Bear Yuba Land Trust, I'd like to thank you for the opportunity to apply for the AB 2766 DMV Surcharge Program. Our proposed project is authorized by our leadership team for your review:

Enhanced Telecommuting Capabilities for BYLT Staff

The contents of this packet outlines our project description, proposal, costs and benefits that would support the overall health of the air quality in Nevada County by reducing emissions.

As project manager, please feel free to contact me with any questions or if additional information is needed.

Warm regards,

Erin Tarr
Co-Executive Director
Bear Yuba Land Trust

P.O. Box 1004, Grass Valley, CA 95945 • 12183 Auburn Rd., Grass Valley, CA 95949
phone: (530) 272-5994 • *fax:* (530) 272-5997 • www.BYLT.org

Northern Sierra Air Quality District
AB2766 DMV Surcharge Fund Grant Proposal

Project Description

Bear Yuba Land Trust has been striving to put forth our mission of conserving natural and working lands and connecting people with nature in Nevada County for 28 years. Currently, much of our staff commutes over 10 miles one-way to reach our office in Grass Valley. Allowing and enabling our staff to work remotely from home is a vital part of our mission and employee guidelines as well. With funding from this grant, we can provide employees a chance to work remotely with 5 new laptops and a cloud-based server for easy communication and document sharing. Not only does more opportunity for telecommuting help our organization be more productive, but it also serves the greater Nevada County by reducing the number of vehicles on the road and the pollutants emitted by these vehicles.

The $7,000 requested funding for **Enhanced Telecommuting Capabilities for BYLT Staff** will be used to purchase Code42, a online cloud-based server, easily accessible to all staff members in the office or at home. The rest of the funding with be used to purchase 5 laptops, each with a protective case, assigned to staff members working remotely.

By using the funding to make telecommuting more accessible and functional, we eliminate approximately 875 one-way vehicle trips to work and eliminate 20,050 miles driven by these vehicles. With the reduction in mileage and one-way trips, we reduce our nitrogen oxide, reactive organic gases, and particulate matter released, thus supporting the overall health of the air quality in Nevada County.

Project Organization/Background

At Bear Yuba Land Trust, we are committed to conserving natural and working lands. We also strive to connect our community with nature through educational programs and experiences that foster stewardship and a greater appreciation for conservation. We have been a keystone organization in Nevada County for 28 years with a commitment to conserving land in perpetuity.

As such, it is important for BYLT leadership to create a workplace culture that embodies sustainability practices and fulfills our mission by reducing our environmental footprint. Currently, we are modernizing our employee handbook in order to embrace work/life balance and respect the smart and efficient use of an employee's time. Telecommuting is one area of significant focus, with a policy that will be approved as part of the new employee handbook, effective December 2018.

In order to support our telecommuting goals and to make it efficient and easy for all employees, we are seeking funding for the proper equipment needed to effectively introduce this new program. The project manager, Erin Tarr, will work with the Co-Executive Director of Operations, Erika Seward, on the selection of equipment and accounting. Tracking expenses within this project will be relatively simple, where funding only goes to two direct purchases. The first purchase includes Code42, the shared drive software estimated to be between $500-$700. The second purchase includes 5 laptops, estimated at about $1,300 each with a protective case. Additionally, Erika and Erin will work closely with the BYLT Bookkeeper Lisa Hooper to track employee timesheets, making note of days spent both in the office and telecommuting. This will allow for a calculation of actual emissions reduction by comparing the total vehicle miles traveled versus those that are curtailed through telecommuting.

Emission Benefits/Cost Effectiveness

The estimated emission reduction was calculated through a series of quantifiable measures. First, it was estimated that one-way trips would be reduced by 875, totalling 20,050 annual miles travelled. The Emissions reduction would be 25.27 lbs/year. Total cost effectiveness per pound measures at $96.95.

A chart, Appendix A, outlines emission benefits and cost effectiveness in greater detail.

Work Statement

This project will be relatively simple to implement, as outlined in the following tasks, with a proposed rollout on January 1, 2019.

1 - New employee handbook to be approved by BYLT Board of Directors, November 27th, 2018.
2 - Telecommuting policy reviewed at first Staff Meeting of 2019, scheduled January 14th, 2019 which will include an overview of how to track in-office and telecommuting time within time sheets.
3 - Code42 Software installed on 5 Laptops before February 1st.
4 - Laptops assigned to BYLT Staff on February 1st. Timesheet tracking begins.
5 - Optional laptop training by in-house tech support offered at monthly Staff meeting on February 11th.
6 - Monthly check-ins with Staff by Erin and Erika will be ongoing to gauge effectiveness, calculation tracking and use of telecommuting.

Once funding is granted, the District will be acknowledged through an announcement in January BYLT Communications including our member newsletter, website blog and social media outlets. The District logo will also be placed on the BYLT website for year round presence and within the BYLT enewsletter which is distributed monthly. At year end, BYLT will again acknowledge the District and the calculated cost effectiveness and emission benefits within BYLT's year-end report and member communications.

Funding Request/Breakdown of Cost

Bear Yuba Land Trust respectfully requests $7,000 in funding to cover capital expenses for direct equipment purchases to include five laptops with protective cases and Code42 software. Laptops are estimated to be $1300/each with cases. Code42 software ranges from $500-$700.

Grant Funding Amount	Qty	Cost	Total
Laptops with Cases	5	$1300	$6500
Code42 Software	1	$ 500	$ 500
Total Project Funding			**$7000**

Code42 Software will be purchased first with the funding, with the remaining amount (net sales tax and warranty) to be applied towards five laptops that meet BYLT's technical needs from storage capability to RAM speeds. This will be a one-time purchase that does not require ongoing monitoring.

BYLT has limited unrestricted cash and is unable to contribute funding for this project. If funding is granted, we will allocate dollars towards yearly maintenance costs for the equipment, beginning with the 2019 fiscal year.

Schedule of Deliverables

Bear Yuba Land Trust would estimate the total vehicle miles traveled by Staff daily to the office and compare that data with vehicle miles averted by Staff working from home. We will quantify our emissions reductions monthly during our fiscal reconciliation process working with BYLT's bookkeeper. Timesheets are submitted twice a month, which will include a category for telecommuting and the estimated vehicle miles traveled per day. A monthly report will be generated for revlew by project manager, Erin Tarr, with a year-end report generated that includes a project summary contalnlng total calculation of annual miles traveled (round trips) and emissions reduction, as well as overall cost effectiveness of funding dollars.

The year-end report will also outline how BYLT sought to educate our membership base on the benefits of telecommuting and overall emissions reduction, estimating total reach and impressions through BYLT's communication outlets.

Enhanced Telecommuting Capabilities for BYLT Staff Monitoring Schedule
(Beginning February 1st, 2019)

February 28	Employee telecommuting benefits calculation
March 31	Employee telecommuting benefits calculation
April 30	Employee telecommuting benefits calculation
May 31	Employee telecommuting benefits calculation
June 30	Employee telecommuting benefits calculation
July 31	Employee telecommuting benefits calculation
August 31	Employee telecommuting benefits calculation
September 30	Employee telecommuting benefits calculation
October 31	Employee telecommuting benefits calculation
November 30	Employee telecommuting benefits calculation
December 31	Employee telecommuting benefits calculation
	Total calculation of annual miles traveled, round trips
	Total calculation of emissions reduction (All), in pounds per year
	Overall Cost-effectiveness of Funding Dollars measured and reported

Appendix: A Emission Benefits/Cost Effectiveness

NSAQMD AB 2766 Grant

Grant Year: 2019
Department Name: Bear Yuba Land Trust
Grant Name: Telecommute Proposal

Please only insert text or values in the blue shaded cells. Non-shaded cells are formulas that should not be altered.

	TC #1	TC #2	TC #3	TC #4	TC #5	Totals
Grant Funding Amount	$1,400	$1,400	$1,400	$1,400	$1,400	
In-Kind Funding amount	$0	$0	$0	$0	$0	
Total Project Funding amount	$1,400	$1,400	$1,400	$1,400	$1,400	$7,000
Effectiveness Period (LIFE)	3.00	3.00	3.00	3.00	3.00	
Capital recovery factor	0.35	0.35	0.35	0.35	0.35	
Average Miles per trip (one-way)	11.00	12.00	8.00	15.50	9.00	
One Way Vehicle Trip Reductions per year	200	200	150	200	125	875
Annual Miles travelled, round trips	4,400.00	4,800.00	2,400.00	6,200.00	2,250.00	20,050.00
Average Auto Emissions Factors (ARB 2013 from table 3)						
ROG - Average Trip ends (g/trip end)	0.584	0.584	0.584	0.584	0.584	
ROG - Auto VMT factor (grams/mile)	0.191	0.191	0.191	0.191	0.191	
NOx - Average Trip ends (g/trip end)	0.298	0.298	0.298	0.298	0.298	
NOx - Auto VMT factor (grams/mile)	0.217	0.217	0.217	0.217	0.217	
PM2.5 - Average Trip ends (g/trip end)	0.003	0.003	0.003	0.003	0.003	
PM2.5 - VMT factor (grams/mile)	0.087	0.087	0.087	0.087	0.087	
Annual Emission Reduction - ROG (lbs/year)	2.37	2.53	1.40	3.12	1.27	10.69
Annual Emission Reduction - Nox (lbs/year)	2.37	2.56	1.34	3.23	1.24	10.73
Annual Emission Reduction - PM2.5 (lbs/year)	0.85	0.92	0.46	1.19	0.43	3.85
Total Emissions reduction (All) (lbs/year)	5.58	6.01	3.20	7.54	2.94	25.27
Cost-Effectiveness of Funding Dollars ($$/lb)	$96.95					

Capitol Recover Factors

1 year	1.03
3 years	0.35
5 years	0.22
7 years	0.16
10 years	0.12
12 years	0.10
15 years	0.08
20 years	0.07