



Meeks Bay Fire Protection District
 Douglas Taggart
 P.O. Box 189
 Tahoma, Ca. 96142
 530.525.7558
 fx 530.525.4502
 email: dtaggart.meeksbayfire@gmail.com

RECEIVED

MAR 31 2011

AQMD

EXHIBIT SUMMARY SHEET

Description	AB2766 Funds	Match Funds	In-Kind Funds	Total Costs
1 July 2011 to 30 June 2012				
Neighborhood Fuels & Biomass Removal Program				
(PERSONNEL – labor)	\$ 52,000			\$ 52,000
(Materials, supplies, fuel)	\$ 8,000			\$ 8,000
(or any percentage of this)				
MBFPD Equipment				
Fair Value Lease				
(100 work days at \$800/day)			\$ 80,000	\$ 80,000
District Oversight and Administration		\$ 7,200		\$ 7,200
Acknowledgments & Program PR to home owners		\$ 2,800	\$ 2,000	\$ 4,800
Cost of Arranging for Biomass Transfer Point		\$ 5,000		\$ 5,000
=====				
TOTALS	\$ 60,000	\$ 15,000	\$ 82,000	\$ 157,000

EMISSION BENEFITS/COST EFFECTIVENESS:

We aren't sure we have "done the math" properly, in calculating this benefits to cost effectiveness out. We know each trip is 22 miles there and 22 miles back and that about 3800 round trips are required to move the cubic yards of biomass. This gives us about 167,000 total miles, that could be driven, less those miles we drive in our program of 17,000.

Using the Car/Van Pool Program at ARB.gov, I entered a series of numbers that gave me totals, very close to my distance and number of trips. I came up with 149,850 in mileage (vs 150,000 estimated) and 7,595 one way trips (vs 7600 estimated). That calculation produced this set of results.

VMT Factor	COM. TRIP END FACTOR
ROG .390	ROG 1.478/trip
NOx .486	NOx .647/trip
PM10 .218	

REDUCTIONS	COST EFFECTIVENESS
ROG 103 lbs	\$183.83 PER POUND
NOx 149 lbs	
PM10 68 lbs	
ROG & PM10 325 lbs	

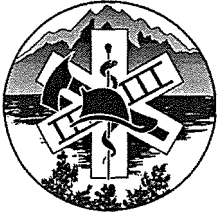
These might be reasonably accurate...or not, given the variables in that program. What we do know is, without the program, there could be an increase of over 150,000 additional miles driven, per year, in privately owned vehicles, to dump this material legally.

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: MEERS BAY FIRE PROTECTION DISTRICT

Please complete and attach this checklist with your application.

- ☒ Exhibit Summary Sheet (Cover) – page 1
- ☒ Request for Proposal Contents Checklist (Second Page) – page 2
- ☒ Authorization Letter/Resolution page 3
- ☒ Project Description – page 4
- ☒ Project Organization/Background – page 9
- ☒ Emission Benefits/Cost Effectiveness – page 10
(Must utilize March 2010 Emission Factors)
- ☒ Work Statement – page 11
- ☒ Funding Request/Cost Breakdown – page 11
- ☒ Matching Funds – page 11
- ☒ Schedule of Deliveries/Self-Monitoring Program – page 11
- ☐ Local TPA Review (When Applicable) – page N/A
- ☒ 2 Copies of Proposal – page _____



Meeks Bay Fire Protection District

Post Office Box 189
Tahoma, CA 96142
Lake Tahoe
PHONE 530-525-7548
FAX 530-525-4502

John Pang, CHIEF

BOARD OF DIRECTORS:
Edward I. Miller
Nicholas J. Kromydas
Jane L. Warmack
Bruce C. Massie
Stephen W. Hyde

Ms. Kerri Williams
EDCAQMD
2850 Fairlane Ct.
Placerville, CA 95667

March 28, 2011

Dear Ms. Williams,

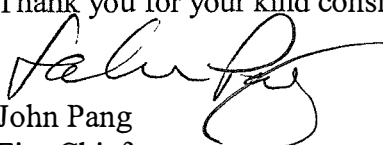
I am authorized to apply for a grant committing our staff as in-kind assistance and hard dollars for a grant application for our Neighborhood Fuels and Biomass Reduction Program.

Our agency is very committed to cleaning the environment in the Tahoe Basin and helping to sustain the pristine area we live in. Through studies, it has been proven that particulate matter contributes to the loss of clarity in Lake Tahoe. Additionally, we can all see the impacts of smog in the air that we breathe during the morning inversions.

Vehicular emissions play a large role in the daily air quality here in the Tahoe Basin, and vehicle miles from our constituents disposing of defensible space biomass and fuels (pine needles, small branches, etc.) really adds up considering the dump is about 22 miles away.

In the event that El Dorado County Air Quality Management District graciously funds this program, I am authorized to sign a contract for the grant on the District's behalf. We will use the funding to help minimize miles on the road here in Tahoe, which will immensely help the environment as a whole.

Thank you for your kind consideration,


John Pang
Fire Chief

PROJECT OUTLINE & DESCRIPTION

FOR:

**Meeks Bay Fire Protection District
Neighborhood Fuels and Biomass Reduction Project
Coordinator,
Douglas Taggart, MBFPD, 530.525.7558
email: dtaggart.meeksbayfire@gmail.com**

In response to:

***RFP El Dorado Co. Air Quality Management District
FY 11//12 Motor Vehicle Emission Reduction Projects Under
AB2766***

Area of Application under Eligible Project Types List

Motor Vehicle Emission Reduction

- 1. Continued reduction of vehicle miles traveled by
privately owned vehicles.***

AREA OF GRANT BEING ADDRESSED:

**REDUCING PRIVATELY OWNED VEHICLE MILEAGE TRAVELED
THROUGH CURBSIDE PICKUP OF GENERATED BIOMASS.**

PROJECT OUTLINE:

Meeks Bay Fire Protection District is submitting this request seeking funding to continue our successful Neighborhood Fuels & Biomass Reduction Program. This curbside pickup of biomass reduces vehicle emissions (as well as burn pile emissions – a separate but equally important aspect not taken into account by this program) by reducing privately owned, vehicle miles traveled. In the past, this program was funded by the State, under CALFIRE and Prop. 40 through 2009. We were able to keep it going in 2010 by funding it through the American Recovery & Reinvestment Act (ARRA Stimulus funds).

But, neither source has funding available for 2011. If the program is discontinued, the potential exists to add well over 100,000 miles of travel

just from our District's residents. By being "forced" to use their own vehicles, to dispose legally of their own biomass materials, as required by law, under Public Resources Code 4291, we could easily see this increased amount of vehicle miles traveled.

While we do have the ability to continue our curbside biomass pickup, at least for this year, by drawing from USFS funding designated for actual Forest Fuels Reduction, it becomes a choice of "robbing Peter to pay Paul."

All dollars spent on curbside pickup of biomass, helps reduce VMTs from POVs. This, in turn, reduces their emissions, open fire emissions from household burn piles and urban lot biomass. However, it also reduces by the same dollar, our ability to treat excessive forest fuels buildup around our communities in the Wildland-Urban Interface Zone. This obviously increases potential fire risks to the home and property owners within the District.

The higher priority has to obviously be fire protection, thus this request for any amount available, up to the programs' entire seasonal costs. This request is not an all or nothing request. Every dollar granted means a Forest Service dollar goes towards its true goal of Fuels Reduction and our community holds down auto & burn emissions by participating in our program. Even a 25% or 50% cover of our Neighborhood Fuels & Biomass Reduction Program is better than no dollars at all, although preferably a full 100% coverage would accomplish the full intent of both programs.

Thank you for your time and consideration of our request.

PROJECT DESCRIPTION:

Introduction:

California Public Resources Code (PRC) 4291 requires home and property owners, Statewide, to reduce flammable vegetation around all homes and structures, to a set criteria, legally enforceable by CALFIRE. Popularly known as "creating Defensible Space", the removal of this vegetation creates a large amount of biomass material which must be disposed of properly and legally.

When it first became law a few years back, the common solution for home owners was to either burn the material on site (potential escape of fire and fire emissions) or load the material into pickups or garbage bags into the car and head for the nearest landfill.

Most fire districts, ours included for obvious reasons, didn't like the first option. The second option tended to end up with only a bare minimum of work getting done in order to create the least amount of biomass that had to be removed. Or large amounts of woody biomass would be dumped at the end of remote roads, usually on public property, which totally defeated the purpose of PRC 4291.

In order to solve both problems, most rural fire protection districts applied for, and received funding from, California's Prop. 40, administered through CALFIRE. We have used that funding the past few years, through 2009, when it ran out. We were able to keep the program running in 2010 by the one-time infusion of ARRA Stimulus funding. Such funding allowed us to create a seasonal paid staff that travels the District, at home or property owner's request, to pick up their biomass material created while complying with PRC 4291. There is no limit to amount they generate so we get the maximum "bang for our buck" of neighborhood fuels & biomass reduction, through this service. We then reutilize or repurpose this material through programs not available to the individual, due to our economy of size and scale.

This did two positive things. First, it reduced the open air burning of vegetation material, almost eliminating this practice on private holdings here in the Tahoe Basin, not to mention fire escape potential. (It is still perfectly legal for individuals to do these burn piles on "burn days", we just wish to continue to discourage it by offering a better option through curbside pickup.) Obviously, from an AQMD standpoint, this is an important amount of emissions not being created.

Secondly, and direct to this AQMD program, it reduced significantly, within our District's borders, the Vehicle Miles Traveled (VMT), using Privately Owned Vehicles (POV), by home and property owners, in order to meet compliance requirements of disposal.

To address this second part, let me provide an estimate of the scale of this program. In 2010 we picked up and either moved or repurposed over 8600 cubic yards of biomass. Our calculations (see below) show that up to 167,000 miles of travel by privately owned vehicles have been replaced by under 10,000 miles of travel by our District's Neighborhood Fuels Reduction vehicles. It allows biomass transport and reutilization, on a scale unavailable to the individual and reduces emissions on a large scale.

Our Program clearly has a cost and environmental benefit, not only by reducing the various automotive generated emissions but also less biomass being burned in the open. It also allows for the positive usage of much of the biomass in controlled firing at co-gen plants. Further, much material is used in local erosion control projects which allow for the slow

release of the carbon sequestered in the biomass material and, at the same time, protect water quality and habitat here in the Tahoe Basin.

As mentioned in the Project Outline, in previous years, this District Program has been funded primarily from Prop. 40 Funds, through CALFIRE and, in 2010, the Federal ARRA Stimulus program. However, neither source of funding is available for 2011 or beyond. In order to continue the program, we must draw from funds more formally allocated to actual Forest Fuels Reduction issues by the US Forest Service (USFS).

To help property and home owners comply with PRC 4291, and cut VMT's of POV's, means less can be spent on Fuels Reduction Projects in the Wildland-Urban Interface (WUI Zones). Both are equally important programs of reducing Wildfire Risk to Communities, as identified by the Blue Ribbon Commission of experts and our Community Wildfire Protection Plan, following the Angora Fire in the Lake Tahoe Basin.

In others words, simply put, "we are robbing Peter," who is trying to reduce forest fuel loads and fire intensity potential, "to pay for Paul's" property clean-up disposal costs requiring a long drive to dispose of their created biomass.

Without additional funding, even partial program costs, such as from this proposal, eventually we can only fund the Fuels Reduction programs the USFS funds were allocated for. That means home and property owners must either return to burning or get back on the road and do it themselves, with all that would mean for emissions and a variety of other environmental factors.

Specific Information for Meeks Bay Fire Protection District:

PRC 4291 requires Statewide, specific measures and actions, by home and property owners, to reduce the threat of wildfire on privately owned property. Commonly called "Defensible Space", it requires modification, and significant removal of, vegetation within 100 feet of all buildings and structures, at the owners' expense.

This modification of vegetation creates a variety of types of biomass materials which must be disposed of properly. Except for relatively rare instances of prescribed fire events consuming "burn piles", this usually means the home or property owner must arrange for this biomass material to get from their location to the nearest approved landfill facility.

Large projects typically rent dumpsters and place them on-site, using landscaping companies and their labor to fill them. However, in our District, few such events are of a scale to require this. Following over 5

years of CALFIRE and local jurisdiction enforcement of PRC 4291, now the vast majority of curbside pickups, are what we call yearly maintenance of defensible space. In other words, clean up the dead and downed wood, rake the needles, clean off the roof and pick up the downed bark and cones...EVERY YEAR.

Here in Meeks Bay's District, the nearest approved biomass acceptance facility is located 22 miles north, off US Highway 89, just south of the Town of Truckee. On average, a home or property owner must make a round trip of some 44 miles, in order to dispose of this accumulated material, required under California State PRC 4291.

Meeks Bay FPD has quantified these materials as to types and volumes, based on actual field work, including this same curbside pickup program, over the past 5 plus years. The normal method is for the home or property owner to bag small biomass materials; using the common "black trash bag" we are all familiar with. They then call us for chipping, if needed on larger material, and biomass pickup. The average call in 2010 produced 6.6 cubic yards of biomass per property.

Such bags contain, on average, about 1/3 cubic yard of biomass, most often chips, cones, pine needles, bark, small limbs and twigs. Further, on average, the home or property owner throws 6 or 7 of these into their vehicle and makes that round trip drive of 44 miles to the landfill, to dispose of them, at a set cost of \$15-20 per load, for those 2-3 cubic yards of biomass. With 6.6 yards per property, that would be 3 round trips to the landfill if the home or property owner was required to make that drive.

In 2010, Meeks Bay FPD's Neighborhood Fuels & Biomass Reduction Program, hauled over 8600 cubic yards of biomass. If the individual home and property owners had to do this on their own, with POV's, that could mean as many as 3800 round trips of 44 miles each, to legally dispose of biomass, required to be removed from their property, by code. In short, a total of 167,200 miles driven, equal to almost 8 trips around the Earth!

Our program, using a towed chipper, a 20 cubic yard dump truck, and a 10 yard dump trailer, towed by a 1 ton pickup, removed safely and efficiently, this amount of biomass at a season's cost of \$ xxx.00. Further, our total distance traveled was under 10,000 miles, to collect, sort and stage this material for repurposing and reutilization.

Depending on demand and supply, there are some additional miles traveled, after this point, but not by our District's personnel or equipment, so they are not included here. These miles would be the large semi-truck, pulled "chip trailer" with approximately 100 cubic yards per trailer, going to the co-gen plants.

We usually stage our collected chipped material at either Sugarpine Point State Park or Homewood Mountain Resort, while clean needles are sourced to Homewood for erosion control. Neither service is available to the individual home or property owner.

There, the chain of our control ends as the material is bulk transported to the nearest operating co-gen plant, usually Loyaltan, but sometimes as far as Quincy or Susanville. On arrival, the trucking firm receives a cost per ton, which pays a partial amount of the transportation costs. We do pay a fixed amount into the fund that pays for that collection and bulk transport, as part of our program, usually operated by Placer County.

We estimate that continuing to carry out our curbside pickup program, for biomass, eliminates at least 140,000 miles per year driven in POV's. This is the figure we are using in our calculations for this RFP.

MATCHING FUNDS

We have a very large available figure in our matching funds, primarily in "soft match" based on our owned equipment and its' fair market rental value. The District will also provide some hard dollar matches, primarily in paying for the administrative side of handling this program.

Remember, we are not asking for a "all or none" decision. Any amount will help. The various match percentages may change based on awarding of less than the full program request but, will always be at a reasonably high level combination of soft and hard match monies.

PROJECT ORGANIZATION AND BACKGROUND

The Meeks Bay Fire Protection District has had numerous years of success in procuring and administrating various grants, the largest being from the US Forest Service (\$600+K) for our various Forest Fuels and Neighborhood Fuels & Biomass Reduction programs. Indeed, we have received grants from EDCo./AQMD through AB2766 in the past. We've also received grants for other multi-jurisdictional projects and have completed them successfully, ultimately benefitting the public we serve. We have great working relationships with our customers, and are in constant communications with them via our newsletters, website, newspaper articles, Twitter and our 4th of July Community Pancake Breakfast. We are a "green" agency, and are sincerely interested in reducing both vehicle and environmental emissions as well as repurposing generated biomass.

EMISSION BENEFITS/COST EFFECTIVENESS:

We aren't sure we have "done the math" properly, in calculating this benefits to cost effectiveness out. We know each trip is 22 miles there and 22 miles back and that about 3800 round trips are required to move the cubic yards of biomass. This gives us about 167,000 total miles, that could be driven, less those miles we drive in our program of 17,000.

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NOx 149 lbs
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COST EFFECTIVENESS

\$183.83 PER POUND

These might be reasonably accurate...or not, given the variables in that program. What we do know is, without the program, there could be an increase of over 150,000 additional miles driven, per year, in privately owned vehicles, to dump this material legally.

Thank you for your kind consideration of helping us continue this worthy, on several levels, program. If given the opportunity of receiving the grant, I will personally ensure that the project is utilized and completed to the best of our ability. An investment in Meeks Bay is an investment in the entire region-the investment will also be leveraged so as to provide the best and widest benefits for our community and our on-going "customer service" programs.

WORK STATEMENT:

Our seasonal work crew, a supervisor and 3 to 4 crew members, usually start prepping our equipment in early June. Under the guidelines of this RPF, they would not be under this grant funding until 1 July per the requirements. Any time incurred prior to that would be District paid. Depending on weather, they will work through the early part of Nov. For 2012, under the terms of this RPF, they could start earlier in May of 2012, again depending on weather. As a well established "machine", our Neighborhood Fuels & Biomass Reduction Crew have an excellent track record these past few years.

FUNDING REQUEST & MATCHING FUNDS:

Description	AB2766 Funds	Match Funds	In-Kind Funds	Total Costs
1 July 2011 to 30 June 2012 Neighborhood Fuels & Biomass Removal Program (or any percentage of this)	\$ 60,000			\$ 60,000
MBFPD Equipment Fair Value Lease (100 work days at \$800/day)			\$ 80,000	\$ 80,000
District Oversight and Administration		\$ 7,200		\$ 7,200
Acknowledgments & Program PR to home owners		\$ 2,800	\$ 2,000	\$ 4,800
Cost of Arranging for Biomass Transfer Point		\$ 5,000		\$ 5,000
=====				
TOTALS	\$ 60,000	\$ 15,000	\$ 82,000	\$ 157,000

SCHEDULE OF DELIVERIES:

Activity	Lead	Timeline
Sign agreements with AQMD	MBFPD	1 st Week
Promote program usage within Community	MBFPD	on-going
Begin Season of Chipping and Biomass pick up	MBFPD	1 July
Procure Logos, Trim and acknowledgment info	MBFPD	1 st Month
Install Logos and Trim	MBFPD	1 st Month
Acknowledge AQMD & AB2766 Funding	MBFPD	on-going
Mileage/usage/scheduling monitoring	MBFPD	on-going
Grant and Fiscal Administration	MBFPD	on-going
Progress Reports to AQMD/EDCo	MBFPD	as required