



# Air Resources Board



**Matthew Rodriguez**  
Secretary for  
Environmental Protection

**Mary D. Nichols, Chair**  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)

**Edmund G. Brown Jr.**  
Governor

TO: Duane Shintaku  
Deputy Director  
Resource Management  
CAL FIRE  
1416 9th Street  
Sacramento, California 94244

FROM: Cynthia Marvin, Chief  
Transportation and Toxics Division

DATE: September 17, 2015

SUBJECT: GREENHOUSE GAS REDUCTION FUND: CALIFORNIA DEPARTMENT  
OF FORESTRY AND FIRE PROTECTION EXPENDITURE RECORDS  
FOR FISCAL YEAR 2014-15 – FOREST PRACTICE PROGRAM,  
REFORESTATION, FOREST PEST CONTROL, DEMONSTRATION  
STATE FOREST RESEARCH

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Thank you for submitting the final four expenditure records (attached) on behalf of the California Department of Forestry and Fire Protection (CAL FIRE) on September 11, 2015 to satisfy the requirements of Senate Bill 1018 (Budget and Fiscal Review Committee, Chapter 39, Statutes of 2012) for expenditures from the Greenhouse Gas Reduction Fund. We appreciate the iterative consultation process with your staff on the development of this record to support expenditures from these forest management programs, excluding the Fuels Reduction Program that is covered by a separate expenditure record.

This memorandum documents that the Air Resources Board (ARB) Transportation and Toxics Division concurred on September 16, 2015 that the attached records are consistent with the statutory requirements of Government Code Section 16428.9 and with our expectations, as documented in the August 6, 2014 final ARB *Interim Guidance to Administering Agencies on Expenditure Record and Fiscal Procedures*.

These CAL FIRE Expenditure Records for Fiscal Year 2014-15, along with this memorandum, will be published on the ARB Cap-and-Trade Auction Proceeds website at: [www.arb.ca.gov/auctionproceeds](http://www.arb.ca.gov/auctionproceeds).

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

**Greenhouse Gas Reduction Fund: Expenditure Record**

**Fiscal Year: 2014-15 Funds**

California Department of Forestry and Fire Protection (CAL FIRE)  
Reforestation

**Authorizing legislation:** Item 3540-001-3228 (Senate Bill 852, Chapter 25, Statutes of 2014) appropriated \$17,847,000 and item 3540-101-3228 (Senate Bill 852, Chapter 25, Statutes of 2014) appropriated \$24,153,000 to implement fire risk reductions, forest health activities, and urban forestry projects.

**(1) A description of each expenditure proposed to be made by the state agency pursuant to the appropriation.**

<input type="checkbox"/> Agency that will administer funding	<ul style="list-style-type: none"> <li>▪ California Department of Forestry and Fire Protection (CAL FIRE)</li> </ul>
<input type="checkbox"/> Amount of proposed expenditure and appropriation reference	<ul style="list-style-type: none"> <li>▪ Items 3540-001-3228 and 3540-101-3228 of the Budget Act of 2014 includes \$24,153,000 (\$22,353,000 in grants and \$1,800,000 in program/administrative staff) from the Greenhouse Gas Reduction Fund (GGRF) for forest management activities that will reduce greenhouse gases (GHG).</li> <li>▪ Of that amount, \$6 million will go towards the Reforestation projects as described in this Expenditure Record.</li> <li>▪ Cost share agreements will be implemented under the authority of Public Resources Code section 4790 et seq., the California Forest Improvement Program, where the State and funding recipients each contribute a portion of the total project cost.</li> <li>▪ Other expenditures of approximately \$415,000 from the state operations budget will include seed bank facility improvements at the L.A. Moran Reforestation Center in Davis, California, expanding contractual funding to facilitate cone/seed collections, seedling propagation in cooperation with private nurseries, and adding technical staff to support the above reforestation services. These administrative tasks are directly linked to producing seedlings for reforestation. Facility improvements at the L.A. Moran Reforestation Center include: Cone Drying Shed (\$200,000), Cone Tumbler (\$105,000), Freezer Racks (\$50,000), Seed Dewinger (\$40,000), Seed Cold Storage (\$20,000).</li> </ul>
<input type="checkbox"/> Intended recipients	<ul style="list-style-type: none"> <li>▪ Landowners</li> <li>▪ Agencies</li> <li>▪ Non-profit organizations</li> </ul>

☐ Project category	<ul style="list-style-type: none"> <li>▪ Native American tribes</li> <li>▪ Natural Resources, Reforestation Grants and State Operations</li> </ul>
☐ Type of projects that will be eligible for funding	<ul style="list-style-type: none"> <li>▪ Funding will be used for grants and cost share agreements to implement reforestation on private forest land degraded by wildfire or other natural disasters. Reforestation projects increase carbon storage in living trees because reforestation, through site preparation, tree planting and competing vegetation control, can materially shorten the timeframe for establishing a new forest as compared to natural reseeding.</li> </ul>
☐ Process for selecting projects for funding	<ul style="list-style-type: none"> <li>▪ Projects are selected through a statewide competitive solicitation. Applications are ranked based on merit, GHG reduction potential and strategic fit at a landscape level.</li> </ul>

**(2) A description of how a proposed expenditure will further the regulatory purposes of Division 25.5 (commencing with Section 38500) of the Health and Safety Code, including, but not limited to, the limit established under Part 3 (commencing with Section 38550) and other applicable requirements of law.**

☐ How the expenditure is reflected in the three-year Investment Plan	<ul style="list-style-type: none"> <li>▪ AB 1532 requires that GGRF monies be appropriated in a manner that is consistent with the three-year Investment Plan. The 2013 Cap-and-Trade Auction Proceeds Investment Plan<sup>1</sup> recommends that funds be used for forest restoration to sequester carbon. In addition, the First Update to the Scoping Plan<sup>2</sup> recognizes the key role that forests must play in meeting California’s GHG emission reduction goals. It describes a series of policies, actions, and strategic investments to enhance, protect, and conserve California’s natural and working lands in ways that will provide important climate benefits, specifically recommending enhancement of carbon storage on natural and working lands through reforestation or restoration.</li> <li>▪ CAL FIRE’s proposed expenditures on reforestation projects are designed to capitalize on these climate change mitigation opportunities, further the GHG emission reduction regulatory purposes of Section 38500, and align with the priorities of the Investment Plan. This is achieved by implementing reforestation projects that increase carbon storage in living trees through site preparation, tree planting and competing vegetation control that can materially shorten the timeframe for establishing a new forest as compared to natural reseeding.</li> </ul>
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<sup>1</sup> Cap-and-trade auction proceeds investment plan: fiscal years 2013-14 through 2015-16.

[http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/final\\_investment\\_plan.pdf](http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/final_investment_plan.pdf)

<sup>2</sup> First Update to the Climate Change Scoping Plan

[http://www.arb.ca.gov/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf)

**(3) A description of how a proposed expenditure will contribute to achieving and maintaining greenhouse gas emission reductions pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code.**

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<p><input type="checkbox"/> Expected time frame when reductions will be achieved and how expenditure will maintain GHG reductions</p>	<ul style="list-style-type: none"> <li>▪ The goal of this grant program is to fund reforestation projects for the purpose of achieving net GHG reductions. In order to be deemed complete and eligible for consideration of funding, project proposals are required to include a clear description of the estimated net GHG benefit that will be achieved through project implementation.</li> <li>▪ The projects and expenditures improve the stability of forest carbon through silvicultural practices that promote forest resilience and increase carbon sequestration through reforestation. Reforestation projects enhance carbon sequestration since reforestation through site preparation, tree planting and controlling competing vegetation reduces the time required to establish a new forest as compared to natural reseeding.</li> <li>▪ Reforestation projects can be an initial source of emission as a result of site preparation activities. As tree seedlings grow, however, they accumulate carbon in the form of wood and result in a net GHG benefit throughout their life. The time required to achieve a net GHG benefit will vary depending on the site preparation activities and the species planted but a net benefit is expected to be achieved within 10 years of planting.</li> <li>▪ Projects that do not immediately result in a GHG benefit must be sustained at least until a net GHG benefit is realized and maintained for 10 years, during which time CAL FIRE will monitor projects for compliance with the terms of the grant. The grant recipient will provide access to CAL FIRE as needed, for periodic monitoring of selected projects.</li> </ul>
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**(4) A description of how the state agency considered the applicability and feasibility of other nongreenhouse gas reduction objectives of Division 25.5 (commencing with Section 38500) of the Health and Safety Code.**

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<p><input type="checkbox"/> Expected co-benefits, particularly environmental, economic, public health and safety</p>	<p>Reforestation projects will provide direct and indirect public benefits by reforesting areas degraded from wildfires or other events that removed forest trees. A summary of co-benefits include:</p> <ul style="list-style-type: none"> <li>▪ Maintaining or improving water quality by impeding erosive runoff that can discharge sediments into streams</li> <li>▪ Instead of brush dominated landscapes with high fire probability, healthy resilient forests that are more resistant to</li> </ul>
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fire and climate change

- Well managed forested landscapes which lessen the risk to life, public safety, and infrastructure. Conifer-dominated forests are more resilient to fire, pests and disease than early seral hardwood and brush species.
- Functional wildlife habitat for state and federally listed species
- Habitat, refugia and migration corridors for wildlife, and maintain the diversity of natural communities that are increasingly stressed by climate change
- Maintenance of, and improved air quality
- Preservation of historic and cultural resources. Forests preserve the original landscape setting of cultural resources, providing a degree of protection against discovery and possible vandalism.
- New and existing employment opportunities
- Enhanced recreational opportunities and tourism revenue

Areas that have had wildfires and lost forest cover can result in significant impairment of water quality. Sedimentation of streams and reservoirs and can cause major runoff/debris flows that result from flooding. Healthy forests protect against erosion and stream sedimentation; reduce property damage and losses due to wildfires, improved public health due to reducing air pollutants, and increased socio-economic activity in rural areas of California.

Other co-benefits from the Reforestation projects include improving the State Seed Bank stores and capacity to ensure long term supply of seed for private landowners' reforestation needs. By storing and providing seed from the State Seed Bank, benefits are achieved by restoring native trees lost to wildfire, insects and disease; avoiding losses of tree species threatened with extirpation or extinction; and assuring mitigation of the uncertainties associated with tree species and forest ecosystem adaptation to climate change.

A variety of other co-benefits related to reforestation, and the subsequent forested landscapes produced are well documented. These include restoration of economic values such as wood products and associated job creation, and non-monetary ecosystems services such as retention of clean water, wildlife habitat, and improved aesthetic and recreational values of the forest. These types of benefits associated with successful reforestation efforts were documented for the 1992 Fountain Fire, located in northeastern California.

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Socio-economic benefits also result from the reforestation. Planting trees provides jobs and secondary economic activity in rural communities where the trees are planted.

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Disadvantaged community benefits, if applicable, as defined in ARB guidelines

- These grants are not expected to directly benefit disadvantaged communities.
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Percentage of total funding that will be expended for projects that benefit disadvantaged communities, per ARB guidelines

- These grants are not expected to directly benefit disadvantaged communities.
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How the project will support other AB 32 objectives (see below)

- The reforestation programs will also support other AB 32 objectives including complementing the State's effort to improve air quality and providing opportunities for community institutions and small businesses to participate in and benefit from GHG reduction efforts via issuing grants to nonprofit organizations.
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**(5) A description of how the state agency will document the result achieved from the expenditure to comply with Division 25.5 (commencing with Section 35800) of the Health and Safety Code.**

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Approach that will be used to document net GHG reductions before and after project completion. Include citations for references that support methodology.

- Project proponents and CAL FIRE will calculate the net GHG benefit from the program described here using ARB-approved quantification methodologies. CAL FIRE will work closely with ARB to improve GHG reduction methodologies for all forestry projects in order to ensure that only projects with a net GHG benefit are funded with GGRF funds.
  - A net GHG benefit for Reforestation projects is calculated by comparing the project scenario to the no-project scenario at the end of a 50-80 year project life. The project scenario is an estimate of the onsite carbon stocks as a result of tree planting and subsequent tree growth and carbon stored long-term in wood products. The no-project scenario is an estimate of the onsite carbon stocks when the project is not implemented. This quantification approach
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	is consistent with the accounting principles of the ARB Compliance Offset Protocol for U.S. Forest Projects <sup>3</sup> .
<input type="checkbox"/> Type of information that will be collected to document project results, as described in ARB guidelines	<ul style="list-style-type: none"><li>▪ Grantees will collect and report project results to CAL FIRE for entry into the Department's CAL Mapper Information System. Information such as acres planted, location of projects, funds expended, solid wood or biomass products generated, and net GHG benefit will be collected and recorded.</li></ul>
<input type="checkbox"/> How the agency will report on program status	<ul style="list-style-type: none"><li>▪ CAL FIRE will regularly report on expenditures, status of grant projects, and project benefits in reports prepared and submitted according to ARB guidelines. At a minimum, such reports will include expenditures, net GHG benefit, and co-benefits.</li></ul>

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<sup>3</sup> <http://www.arb.ca.gov/regact/2014/capandtrade14/ctusforestprojectsprotocol.pdf>