

STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
 DF-46 (REV 08/15)

Fiscal Year 2016-17	Business Unit 3540	Department Forestry and Fire Protection	Priority No.
Budget Request Name 3540-100-BCP-DP-2016		Program 2470 RESOURCE MANAGEMENT	Subprogram

Budget Request Description
 Greenhouse Gas Emissions Reductions and Forest Carbon Storage through Forest Health Treatments

Budget Request Summary

The California Department of Forestry and Fire Protection (CAL FIRE) requests Greenhouse Gas Reduction Fund in Fiscal Year 2016-17, with position authority and associated funding in subsequent years through FY 2021-22, for a comprehensive forest health program to deliver Urban and Community Forestry, the Forest Legacy Program, and landscape-scale Forest Health–Climate Resilient projects.

Requires Legislation <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed See Attachment B	
Does this BCP contain information technology (IT) components? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO	Date

For IT requests, specify the date a Special Project Report (SPR) or Feasibility Study Report (FSR) was approved by the Department of Technology, or previously by the Department of Finance.

FSR SPR Project No. Date:

If proposal affects another department, does other department concur with proposal? Yes No
Attach comments of affected department, signed and dated by the department director or designee.

Prepared By	Date	Reviewed By	Date
Department Director	Date	Agency Secretary	Date
<i>[Signature]</i>	1/5/16	<i>[Signature]</i>	1/5/16

Department of Finance Use Only

Additional Review: Capital Outlay ITCU FSCU OSAE CALSTARS Dept. of Technology

BCP Type: Policy Workload Budget per Government Code 13308.05

PPBA	Original Signed by Amanda Martin	Date submitted to the Legislature 1-8-16
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BCP Fiscal Detail Sheet

BCP Title: Forest Health Treatments

DP Name: 3540-016-BCP-DP-2016-GB

Budget Request Summary

	FY16					
	CY	BY	BY+1	BY+2	BY+3	BY+4
Positions - Permanent	0.0	30.0	43.0	43.0	43.0	43.0
Total Positions	0.0	30.0	43.0	43.0	43.0	43.0
Salaries and Wages						
Earnings - Permanent	0	3,879	4,944	4,944	4,944	4,944
Total Salaries and Wages	\$0	\$3,879	\$4,944	\$4,944	\$4,944	\$4,944
Total Staff Benefits	0	2,738	3,497	3,497	3,497	3,497
Total Personal Services	\$0	\$6,617	\$8,441	\$8,441	\$8,441	\$8,441
Operating Expenses and Equipment						
5301 - General Expense	0	746	802	748	748	748
5302 - Printing	0	46	59	59	59	59
5304 - Communications	0	92	118	118	118	118
5306 - Postage	0	46	59	59	59	59
5320 - Travel: In-State	0	133	170	170	170	170
5322 - Training	0	193	248	248	248	248
5324 - Facilities Operation	0	1,266	1,143	870	870	870
5326 - Utilities	0	46	59	59	59	59
5340 - Consulting and Professional Services - External	0	169,528	0	0	0	0
5346 - Information Technology	0	415	439	413	413	413
5368 - Non-Capital Asset Purchases - Equipment	0	872	559	279	279	279
Total Operating Expenses and Equipment	\$0	\$173,383	\$3,656	\$3,023	\$3,023	\$3,023
Total Budget Request	\$0	\$180,000	\$12,097	\$11,464	\$11,464	\$11,464
Fund Summary						
Fund Source - State Operations						
3228 - Greenhouse Gas Reduction Fund	0	66,154	12,097	11,464	11,464	11,464
Total State Operations Expenditures	\$0	\$66,154	\$12,097	\$11,464	\$11,464	\$11,464
Fund Source - Local Assistance						
3228 - Greenhouse Gas Reduction Fund	0	113,846	0	0	0	0
Total Local Assistance Expenditures	\$0	\$113,846	\$0	\$0	\$0	\$0
Total All Funds	\$0	\$180,000	\$12,097	\$11,464	\$11,464	\$11,464

Program Summary

Program Funding

2470010 - Resources Protection and Improvement	0	180,000	12,097	11,464	11,464	11,464
9900100 - Administration	0	2,068	2,760	2,668	2,668	2,668
9900200 - Administration - Distributed	0	-2,068	-2,760	-2,668	-2,668	-2,668
Total All Programs	\$0	\$180,000	\$12,097	\$11,464	\$11,464	\$11,464

Personal Services Details

Positions	Salary Information			CY	BY	BY+1	BY+2	BY+3	BY+4
	Min	Mid	Max						
0762 - Environmental Scientist (Eff. 07-01-2016)				0.0	5.0	5.0	5.0	5.0	5.0
0762 - Environmental Scientist (Eff. 07-01-2017)				0.0	0.0	2.0	2.0	2.0	2.0
0765 - Sr Envirnal Scientist (Spec) (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	1.0	1.0
1041 - Forester III (Eff. 07-01-2016)				0.0	3.0	3.0	3.0	3.0	3.0
1042 - Forester II (Supvry) (Eff. 07-01-2016)				0.0	4.0	4.0	4.0	4.0	4.0
1054 - Forester I (Eff. 07-01-2016)				0.0	9.0	9.0	9.0	9.0	9.0
1054 - Forester I (Eff. 07-01-2017)				0.0	0.0	6.0	6.0	6.0	6.0
1093 - Forestry Asst II (Eff. 07-01-2016)				0.0	0.0	0.0	0.0	0.0	0.0
1312 - Staff Info Sys Analyst (Spec) (Eff. 07-01-2016)				0.0	0.0	0.0	0.0	0.0	0.0
1373 - Sys Software Spec II (Tech) (Eff. 07-01-2017)				0.0	0.0	1.0	1.0	1.0	1.0
4546 - Accounting Officer (Spec) (Eff. 07-01-2016)				0.0	0.0	0.0	0.0	0.0	0.0
4969 - Staff Svcs Mgr II (Mgrial) (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	1.0	1.0
5157 - Staff Svcs Analyst (Gen) (Eff. 07-01-2016)				0.0	0.0	0.0	0.0	0.0	0.0
5393 - Assoc Govtl Program Analyst (Eff. 07-01-2016)				0.0	4.0	4.0	4.0	4.0	4.0
5393 - Assoc Govtl Program Analyst (Eff. 07-01-2017)				0.0	0.0	2.0	2.0	2.0	2.0
5601 - Info Officer I (Spec) (Eff. 07-01-2017)				0.0	0.0	1.0	1.0	1.0	1.0
5795 - Atty III (Eff. 07-01-2016)				0.0	0.0	0.0	0.0	0.0	0.0
5795 - Atty III (Eff. 07-01-2017)				0.0	0.0	1.0	1.0	1.0	1.0
7419 - Research Program Spec II (Eff. 07-01-2016)				0.0	3.0	3.0	3.0	3.0	3.0
7500 - C.E.A. (Eff. 07-01-2016)				0.0	0.0	0.0	0.0	0.0	0.0
Total Positions				0.0	30.0	43.0	43.0	43.0	43.0
Salaries and Wages				CY	BY	BY+1	BY+2	BY+3	BY+4

0762	-	Environmental Scientist (Eff. 07-01-2016)	0	436	436	436	436	436
0762	-	Environmental Scientist (Eff. 07-01-2017)	0	0	145	145	145	145
0765	-	Sr Envirnal Scientist (Spec) (Eff. 07-01-2016)	0	84	84	84	84	84
1041	-	Forester III (Eff. 07-01-2016)	0	335	335	335	335	335
1042	-	Forester II (Supvry) (Eff. 07-01-2016)	0	531	531	531	531	531
1054	-	Forester I (Eff. 07-01-2016)	0	913	912	912	912	912
1054	-	Forester I (Eff. 07-01-2017)	0	0	498	498	498	498
1093	-	Forestry Asst II (Eff. 07-01-2016)	0	143	143	143	143	143
1312	-	Staff Info Sys Analyst (Spec) (Eff. 07-01-2016)	0	84	84	84	84	84
1373	-	Sys Software Spec II (Tech) (Eff. 07-01-2017)	0	0	92	92	92	92
4546	-	Accounting Officer (Spec) (Eff. 07-01-2016)	0	121	121	121	121	121
4969	-	Staff Svcs Mgr II (Mgrial) (Eff. 07-01-2016)	0	88	88	88	88	88
5157	-	Staff Svcs Analyst (Gen) (Eff. 07-01-2016)	0	115	115	115	115	115
5393	-	Assoc Govtl Program Analyst (Eff. 07-01-2016)	0	484	484	484	484	484
5393	-	Assoc Govtl Program Analyst (Eff. 07-01-2017)	0	0	138	138	138	138
5601	-	Info Officer I (Spec) (Eff. 07-01-2017)	0	0	69	69	69	69
5795	-	Atty III (Eff. 07-01-2016)	0	124	124	124	124	124
5795	-	Atty III (Eff. 07-01-2017)	0	0	124	124	124	124
7419	-	Research Program Spec II (Eff. 07-01-2016)	0	250	250	250	250	250
7500	-	C.E.A. (Eff. 07-01-2016)	0	173	173	173	173	173
Total Salaries and Wages			\$0	\$3,879	\$4,944	\$4,944	\$4,944	\$4,944
Staff Benefits								
5150350	-	Health Insurance	0	944	1,209	1,209	1,209	1,209
5150450	-	Medicare Taxation	0	56	72	72	72	72
5150500	-	OASDI	0	121	157	157	157	157
5150600	-	Retirement - General	0	756	952	952	952	952
5150630	-	Retirement - Public Employees - Miscellaneous	0	495	638	638	638	638
5150800	-	Workers' Compensation	0	366	469	469	469	469

Total Staff Benefits

\$0 \$2,738 \$3,497 \$3,497 \$3,497 \$3,497

Total Personal Services

\$0 \$6,617 \$8,441 \$8,441 \$8,441 \$8,441

A. Budget Request Summary

The California Department of Forestry and Fire Protection (CAL FIRE) requests \$180 million Greenhouse Gas Reduction Fund (GGRF) in Fiscal Year (FY) 2016-17, with position authority and associated funding in subsequent years through FY 2021-22 (see Attachment A), for a comprehensive forest health program that will further secure forest carbon and reduce greenhouse gas (GHG) emissions to meet the 2030 carbon goals within Executive Order (EO) B-30-15. Funds will support the expansion of the Urban and Community Forestry, Forest Legacy Programs, and target landscape-scale Forest Health projects in high-priority forested upper watersheds in coordination with the Department of Fish and Wildlife, to realize the largest direct benefit for GHG reduction, forest resilience and co-benefits, such as protection of water, wildlife habitat, and rural economic stability. Statutory changes are necessary to effectuate this request and can be found on Attachment B.

Other funds than GGRF may be used to achieve healthy forests. This BCP describes the use of GGRF funds to achieve GHG reduction and restore health to upper forested watersheds statewide. Projects will be coordinated with GGRF-funded projects in lower portions of the watersheds conducted by the Department of Fish and Wildlife or other agencies.

B. Background/History

The Global Warming Solutions Act of 2006 (Chapter 488, Statutes of 2006 [Assembly Bill (AB) 32, Núñez/Pavley]), requires California to reduce statewide GHG emissions to 1990 levels by 2020 and to maintain and continue reductions beyond 2020. The Air Resources Board has developed a market-based Cap and Trade Program as a key element of its overall GHG reduction strategy. The program establishes a statewide emissions limit on the sources responsible for 85 percent of GHGs and creates a financial incentive for investment in clean and efficient technologies. The backbone of the Cap and Trade regulation is the system of tradable permits to emit GHGs known as “allowances.” Through an existing market to exchange, these allowances have value between entities, including those covered by the regulation. Under the program, a portion of the allowances required for compliance are sold at auction. The first auction was held in November 2012, and auctions will be conducted quarterly through 2020. Proceeds from these auctions will be used to fund projects that support efforts to reduce GHG emissions.

Strategic investment of these auction proceeds will further the goals of AB 32, including support of long-term, transformative efforts to improve public health and develop a clean energy economy. Forest health projects are key to meeting these AB 32 goals. Three bills signed into law by Governor Brown – AB 1532, Senate Bill (SB) 535, and SB 1018 (Statutes of 2012) – collectively establish the GGRF to receive these proceeds and provide a framework for how these funds will be administered and spent on projects to reduce GHG emissions. Specifically, SB 535 requires that at least 10 percent of the proceeds received by the State be invested within the most impacted and disadvantaged communities and at least 25 percent of the proceeds be invested to benefit these communities. AB 1532 requires the development of a three-year investment plan for Cap and Trade auction proceeds. The May 2013 investment plan emphasized investments in existing programs in sectors which have the greatest GHG emissions—transportation, energy, waste and natural resources—with proposed investments commensurate with relative emissions.

The United States Forest Service (USFS)¹, CAL FIRE and research institutions² have collected forest land spatial data exhibiting the significant increase in insect (bark beetle) attack, disease, and moisture-

¹ USFS aerial survey data for 2015, <http://www.fs.usda.gov/detail/r5/forest-grasslandhealth/?cid=stelprd3836640>

² Asner, P.G, and others. 2015. Progressive forest canopy water loss during the 2012–2015 California drought. Proceedings of the National Academy of Sciences, PNAS December 28, 2015, <http://www.pnas.org/content/early/2015/12/22/1523397113.full.pdf>

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stress related tree mortality in California during the current drought. The best available science indicates that these areas are more prone to high severity fire and the dead, decaying, and dying trees emit greenhouse gases and lose carbon storage capacity. The negative impact of GHG emission is exacerbated when landowners remove these trees for safety purposes and to reduce fire risk, but are then unable to convert the trees and biomass into long-term carbon storage as harvested wood products or bio-feedstock for electrical generation, heat energy, or other co-products (bio-char, landscape mulch, biofuel). The lack of capacity to manage the biomass and trees for a higher value use results in this wood being left in the forest, and in many cases open-pile burned. Both of these activities undermine the objectives of GHG fuel reduction goals.

The forest health, urban forestry and forest legacy programs implemented under this BCP will increase carbon sequestration and reduce GHG emissions through enhanced management actions.

When managing forested landscapes for GHG benefits, CAL FIRE, the Air Resources Board, and the Natural Resources Agency are concerned about the increasing emissions of Short-Lived Climate Pollutants (SLCPs) associated with the growing number, size, and severity of catastrophic wildfires. SLCPs are more recently recognized climate change drivers that remain in the atmosphere for a much shorter period of time than targeted climate pollutants, mainly carbon dioxide (CO₂); however, their potency, in terms of warming effect, is orders of magnitude greater than that of CO₂. They are responsible for about 40 percent or more of global warming experienced to date. SLCPs relevant to forests include black carbon (soot) and methane (CH₄), with about 64 percent of black carbon emissions sourced from wildfire. The amount of black carbon can be significantly reduced by reducing the frequency of catastrophic wildfires. Methane emissions can be reduced by removing the downed trees and biomass from the forest to avoid emissions from aerobic and anaerobic activity. The worst option is a no-treatment strategy.

The Governor issued Executive Order B-30-15 to establish a GHG emission reduction target of 40 percent below 1990 levels by 2030. To meet the new GHG emission reduction target specified in this EO, longer term forest sector investments beyond the budgeted \$42 million GGRF in FY 2014-15 are necessary. Additional forest sector investments will be needed to increase carbon storage and allow for a reduction in the release of SLCPs. Forest ecosystems require long term management in order to maintain forest health and secure carbon benefits for future Californians.

C. State Level Considerations

CAL FIRE's forest health programs should attract other private and public investments for improved management of rural and urban forests. These investments and programs protect, and enhance forest resources for the benefit of present and future generations, ensure future quality timber supplies, stabilize and increase related employment and other economic benefits, maintain and improve the environmental values of forest lands, and assist California in meeting its goals to reduce GHG emissions mandated under AB 32.

This proposal is consistent with the goals and objectives of the Department's 2010 Fire Plan for California.

Goal #3: Support and participate in the collaborative development and implementation of wildland fire protection plans and other local, county and regional plans that address fire protection and landowner objectives.

Objective F: Maximize available resources to strengthen planning efforts through the development of public/private partnerships.

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Goal #5: Develop a method to integrate fire and fuels management practices with landowner priorities and multiple jurisdictional efforts within local, state and federal responsibility areas.

Objective A: Increase support of landowner-initiated hazardous fuels reduction using all available authorities, including the Vegetation Management Program.

Objective E: Promote forest and rangeland health and hazardous fuels reduction. Improve utilization of all forest products, including small logs, urban green waste and biomass.

This proposal is also consistent with the goals and objectives of the Department's 2012 Strategic Plan.

Goal: Cultivate and strengthen relationships with stakeholders, governing bodies, cooperators, and the public.

Objective: Be responsive and receptive to the concerns and needs of the public, as well as local, state, and federal cooperators, the Board of Forestry and Fire Protection, and other stakeholders.

Protecting and enhancing the capacity of forests to remove carbon from the atmosphere and store it for long periods in trees and forest products has become an increasingly important objective. Forests and wood products (such as lumber and plywood) provide a major sink for storing carbon that would otherwise be emitted as heat-trapping GHGs. In 2011, forests and the associated wood products industry captured and stored roughly 16 percent of all carbon dioxide emitted by burning fossil fuels in the United States. The AB 32 Climate Change Scoping Plan identifies the importance of the forestry sector in mitigating climate change through carbon sequestration and the storage capabilities of forests. It identifies five forestry strategies. This proposal contributes significantly to all five strategies. The five strategies are: 1) Forest Conservation; 2) Forest Management; 3) Afforestation/Reforestation; 4) Urban Forestry; and 5) Fuels Management.

D. Justification

CAL FIRE requests a total of \$180 million GGRF in FY 2016-17. Of that amount, \$30 million is for Urban and Community Forestry, \$10 million is for the Forest Legacy Program, and \$140 million is for the landscape-scale Forest Health and Resilience programs, all designed to further secure forest carbon and reduce GHG emissions to meet the 2030 carbon goals within EO B-30-15. Position authority and staff costs will be phased in during FY 2016-17, with associated funding into FY 2021-22, so the programs can be administered and implemented (see Attachment A).

CAL FIRE manages a comprehensive suite of sustainable forestry programs focused on management practices that maintain overall forest health. CAL FIRE will deliver GGRF monies in FY 2016-17 via two primary mechanisms. The first will be the repeat delivery of FY 2014-15 GGRF grant programs for Urban and Community Forestry and the Forest Legacy Program; both of these programs are governed by existing statutory requirements, and CAL FIRE will use the same competitive grant process to allocate funds that meet both AB 32 goals and program objectives. The second delivery mechanism purposely targets or focuses expenditures in areas that will result in healthy, resilient forests at the landscape level. Many of these focused area landscape projects will coincide with areas that have been affected by drought related impacts, which are now predisposed to continued pest problems and higher wildfire risk. CAL FIRE has accumulated data to support landscape level treatments, and is coordinating efforts to identify high risk areas with the USFS, private landowners, the Sierra Nevada Conservancy, and county governments. Forest treatment planning and implementation at the landscape scale will support CAL FIRE's goal of enhancing forest health and carbon sequestration.

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Forest health treatments at the landscape scale will involve a suite of sound forestry practices, including reforestation, pest and disease affected tree removal, thinning fuel reduction, vegetation management and research efforts. Landscape projects are likely to be different throughout California, and influenced by governing laws, policies, and regulations; however, these interests will be melded in such a way that the overall objectives of the GGRF focused forest health investments and carbon sequestration goals are satisfied. These projects are likely to be cooperative efforts between multiple landowners. The intent is for the initial investments of GGRF funds to incentivize other private investors and public agencies to engage in forest health treatments, so that over time, a synergistic effect through combined efforts and leveraging of resources will result.

CAL FIRE will utilize GGRF funds to deliver grant programs for Urban and Community Forestry and Forest Legacy Program. Additionally, CAL FIRE will deliver landscape-scale Forest Health projects in high-priority landscapes to maximize GHG benefits. CAL FIRE will strategically target FY 2016-17 GGRF investments that will achieve net GHG emission reductions into areas that have high levels of carbon stock, wildfire risk, and dead, dying, and diseased trees attacked by insects and other pathogens. Projects will be across large landscapes, in coordination with adjacent land owners, resulting in more efficient planning and a greater impact to forest health and carbon benefits. Where feasible, these projects will also include a biomass use component to ensure that as the volume of woody biomass removed increases, there is infrastructure to use the forest residue, thereby avoiding GHG emissions from open pile burning or natural decay. The targeted investments will also take into account rural communities in need of local economic development and job creation, and those communities where there is active support for forest management and biomass use.

CAL FIRE will also make urban forestry investments prioritized toward CalEnviroScreen disadvantaged communities and other disadvantaged communities who do not meet that criteria. CAL FIRE will continue to secure working forest conservation easements through its Forest Legacy Program, focused at reducing the increasing pressure on landowners to convert their forestlands to other uses such as housing subdivisions, rural lots, and vineyards.

Urban and Community Forestry

CAL FIRE proposes to assist local governments, special districts, and nonprofits with urban forestry grants and technical assistance to include tree planting, biomass diversion projects and associated costs, and reclamation of blighted urban land for urban forestry related purposes, with projects focused in disadvantaged communities. The addition of and better management of trees and associated vegetation in the State's urban areas, especially in those areas that are most disadvantaged, will significantly increase GHG benefits in numerous ways, both direct and indirect, while simultaneously helping urban areas adapt to climate change realities. The CAL FIRE Urban and Community Forestry Program has always given preference to disadvantaged and severely disadvantaged communities, and it will continue to do so with the currently requested GGRF funds. CAL FIRE commits that 50 percent of budgeted Urban and Community Forestry grants will benefit CalEnviroScreen disadvantaged communities. In addition, CAL FIRE also commits that an additional five percent of budgeted Urban and Community Forestry grants will benefit disadvantaged communities that do not meet the CalEnviroScreen criteria.

CAL FIRE requests 1.0 Forester III, 1.0 Forester II, 4.0 Forester I's and 1.0 AGPA to further support the Urban and Community Forestry program. The Forester III will provide program administrative and operational direction through supervision, program development and evaluation, address new policy formulation and development, and represent the program by developing cooperative working relationships with all levels of government and the public.

The Forester II will supervise the Forester I's providing day-to-day operational direction and support for program implementation. Forester I's will act as Urban Forestry Field Specialists providing expert

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urban forestry technical assistance and support to local governments, non-profit groups, and other municipal governments to create and maintain sustainable urban forests. These specialists will speak at public events, work to educate professionals on best management practices and educate the public about urban forestry. They will administer and provide technical support for grant projects such as urban tree planting, municipal tree inventories and management plans, urban forest educational efforts, and urban biomass utilization. They will validate and approve project invoices, and serve as a central point of coordination for urban forestry activities in their assigned areas throughout the state.

The AGPA will act as a disadvantaged community liaison by providing outreach to communities about the new funding opportunities and then provide technical support from the start of the application process through grant close-out. This position will ostensibly function as the CAL FIRE single point of contact for these communities. The Administration and the Legislature are hearing feedback from disadvantaged communities that they need technical assistance to understand the range of GGRF program opportunities available and to compete for funding. Community representatives (such as the SB 535 Coalition), small rural governments, and other stakeholder groups have indicated that the suite of GGRF investments is so broad that individuals and groups do not have the resources or capacity to determine what funding is available and how to access the funding.

Forest Legacy Program (FLP)

CAL FIRE proposes to use GGRF for the Forest Legacy Program to purchase additional conservation easements to prevent working forests from being converted to some other non-forest use (e.g. developed into vineyards, housing subdivisions, legal marijuana growing, etc.) and placed under more intensive land management activities that will result in net GHG emissions rather than net carbon sequestration. Conservation easements are listed as an example project that is consistent with recommended investment priorities for the second three year Cap and Trade Auction Proceeds Investment Plan.

CAL FIRE Forest Legacy Program staff will work with the Wildlife Conservation Board on the real property acquisition process to facilitate the sale or transfer of development rights of selected private forest lands, using Federal Forest Legacy criteria. CAL FIRE staff will provide technical assistance to landowners; administer funds used for such purchases, and work with the Wildlife Conservation Board to ensure projects succeed. CAL FIRE staff, which has the requisite forestry education and training, will also annually monitor the easement to ensure easement terms and conditions are met by the landowners.

CAL FIRE requests 1.0 Forester II to further support program administration and operational function. The Forester II will facilitate conservation easement development, provide public outreach and education on the application process, assist in conservation easement monitoring, review and develop program reports, and make recommendations to further program development and implementation.

Landscape-scale Forest Health Projects

At present millions of forested acres are in decline because of climate change, drought, and the lack of management. Like any other growing, living organism, a forest is adapted to occasional disturbance. Natural disturbance often comes in the form of wildfire, but with the past 100 plus years of fire exclusion in California, and the unnaturally high accumulation of trees, shrubs and downed fuels, allowing wildfire to occur unabated is not an option. Therefore, human intervention to modify forest conditions is necessary. CAL FIRE's suite of forestry practices will increase forest carbon storage, reduce greenhouse gas emissions, and improve forest health and resiliency through thinning, reforestation, fuels reduction, pest control, research, and forest biomass utilization and infrastructure improvement. All projects will be required to show a quantifiable and defensible GHG emission reduction and/or carbon sequestration increase. CAL FIRE will provide significant guidance and oversight for

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quantification of GHG reductions from forest health treatments to ensure consistency. CAL FIRE will target investments in areas where climate change mitigation and adaptation opportunities exist, threats are high, and sound forestry practices are feasible.

Forest Health projects may often have a biomass component. Disposal of forest fuels at bioenergy facilities is a preferred alternative to burning fossil fuels like natural gas, since this maintains a closed carbon cycle with no net increase in atmospheric carbon dioxide levels. Therefore, including biomass/bioenergy investments into Forest Health projects is an important expansion of CAL FIRE's GGRF forestry programs. Additional funding is needed for CAL FIRE to expand its existing suite of forestry programs so that biomass infrastructure and utilization can be another tool to dispose of woody debris and residue generated from fuel reduction projects. This is especially critical as four years of drought has impacted forests with severe moisture stress and insect and disease epidemics. Large numbers of infected trees are dead or dying throughout the State. Further, GGRF investments in biomass utilization and infrastructure improvements can create a cost-effective and environmentally sound mechanism to address this problem.

In addition to the above-noted aspects of the landscape-scale forest health projects, CAL FIRE is committed to providing at least \$5 million of the total \$140 million of this GGRF project component to the California Conservation Corp (CCC), for projects demonstrating a GHG reduction. The CCC will use this funding to complete CCC and CAL FIRE coordinated fuel reduction projects in high-priority and critical watershed areas within the proximity of the CCC's Lake Tahoe, Ventura, and Butte residential centers. Fund will be provided to CCC via an interagency agreement that will contain the terms and conditions for the use of the GGRF monies and other necessary contractual elements.

The requested Forester III and Senior Environmental Scientist positions will function as Biomass Research Specialists focusing on new and innovative opportunities for biomass utilization, evaluating biomass/bioenergy investments as proposed in Forest Health projects, work to identify biomass utilization and infrastructure improvement opportunities, and represent the Department to other State and federal agencies and the public regarding the biomass program. The Forester III will provide overall GGRF program administrative and operational direction through supervision and program development and evaluation, addressing new policy formulation and development. The Forester III will represent the program to all levels of government, stakeholder groups, and the public.

The requested Forester II positions will function as Research Coordinator and a Forest Stewardship Forester, who will administer all cost-share programs utilizing GGRF, act as a liaison with the Forester IIs, and coordinate allocation of funding resources.

The requested Forester Is (7.0) and Environmental Scientists (7.0) will be working directly with forest landowners by providing technical forestry advice and aid in coordination of field activities, including but not limited to, fuels reduction, reforestation, timber stand improvement (TSI), and biomass utilization that result in GHG emission reductions or enhanced carbon sequestration. The Forester Is and Environmental Scientists will be responsible for helping develop applications and grants, reviewing and approving required management plans, checking for CEQA compliance, on-the-ground inspections, invoicing, and project tracking and reporting to the Forester IIs.

The AGPA will be responsible for the overall preparation and administration of GHG emission reduction grants. The position will assist in the development of grant agreements, preparation of grant guidelines and templates, and award documentation. Once the grant funding has been awarded, the position will act as liaison between technical forestry staff and the CAL FIRE Accounting and Budget Office for fiscal reconciliation and funding issues. The position will also maintain an accounting of grant funds to respond to reporting requests from the Air Resources Board.

Analysis of Problem

The Research Program Specialist II (GIS) positions (3.0) will provide technical assistance, review, and manage grant funding biomass use. The positions will also help track biomass technology, research, business economic analysis, and the state of the industry in order to help advise on the most strategic investments. CAL FIRE intends to reduce GHG emissions, especially black carbon, by converting biomass burn piles to wood products and renewable energy. Increasing investment in establishing statewide biomass infrastructure will also provide local economic development opportunities in disadvantaged, rural communities, as well as help generate a private revenue source for additional forest health projects that can be used to match GGRF.

As part of its Enterprise GIS system, CAL FIRE has developed a mapping/database program called CalMAPPER. CalMAPPER, which represents the best available technology, provides a standardized approach to entering and tracking different types of forest management projects. It is intended that GGRF grant funded activities will be tracked in CalMAPPER. This system supports project reporting of project accomplishments across different grant programs. The Research Program Specialist IIs (GIS) and Systems Software Specialist will support the anticipated increase in the volume of projects entered and tracked in CalMAPPER. The Research Program Specialist IIs (GIS) will coordinate with CAL FIRE programs on the entering of project data statewide, report accomplishments, and serve as a lead for the CalMAPPER oversight related to GGRF projects. The Systems Software Specialist position will provide maintenance, and quality control of CalMAPPER in relation to GGRF projects.

The suite of sustainable forestry practices involved with Forest Health projects will result in healthier, more resilient forests that are better able to sequester carbon, resist wildfire, fend-off insect and disease attacks, and adapt to climate change. In addition, urban forestry funds will result in sequestering additional carbon and reducing greenhouse gas emissions, while at the same time, providing better places for people to live. Urban forestry funding will also help people in urban areas adapt to climate change in the places where they live, work, and play. The Forest Legacy Program will continue to develop, fund, and execute working forest conservation easements to protect forestlands from development and the associated losses of carbon stored in trees and increases in emissions related to the developed land use.

To maximize the use of one-time special fund resources, CAL FIRE will institute a process to further refine the identified high-priority landscapes to concentrate GGRF investments in areas that can reap the largest direct benefit for forest resiliency and co-benefits, such as carbon sequestration, water quality and quantity, a diversity of wildlife habitats, and rural economic stability.

CAL FIRE requests the same GGRF budget bill language (BBL) contained in the Budget Act of 2014.

E. Outcomes and Accountability

Grant metrics will vary by project type, but all projects will be required to have objective, measurable metrics for GHG reduction, supply their methodology for determining those reductions, and be mandated to report on GHG reductions at project completion. Project accomplishments could include acres treated, number of trees planted, volume or weight of biomass delivered to energy plants, outcomes of forest pest control projects, acres of lands enrolled in conservation easements, and other measures demonstrating accomplishments of the programs. All GGRF funds expended are required to further the goals of AB 32 and the Governor's EOs. Each grant recipient will be required to provide a rigorous, quantitative calculation of the amount of GHG reduction that will result from implementing the project.

F. Analysis of All Feasible Alternatives

Alternative 1: Approve \$180 million GGRF in FY 2016-17, with position authority and associated funding in subsequent years through FY 2021-22 (see Attachment A), for a comprehensive forest

health program that will increase and better secure forest carbon and reduce GHG emissions to meet the 2030 carbon goals within EO B-30-15. CAL FIRE will deploy comprehensive sustainable forestry practices to deliver Urban and Community Forestry, the Forest Legacy Program, and landscape-scale Forest Health projects to meet the new 2030 goals within EO B-30-15.

Cost:

- \$180 million GGRF in FY 2016-17 and associated funding in subsequent years (see Attachment A).

Advantages:

- GGRF will be focused on reducing GHG through carbon sequestration in living forests and harvested wood products, which are one of the most effective strategies for reducing GHGs.
- GGRF investments will help meet the new carbon goals pursuant to EO B-30-15.
- CAL FIRE would be able to provide technical assistance, and grants to local governments, special districts, landowners, and non-profit organizations to further efforts to reduce GHG into the future.
- CAL FIRE will promote its goals and objectives as they pertain to Resource Management through outreach, technical assistance, and grant administration to entities not fully aware of program availability and use of best management practices.
- The proposal will create healthier forests and bolster biomass or bioenergy efforts to address hazardous fuels and SLCP, where the majority of black carbon SLCP is attributed to wildfire.
- The projects will improve public safety by reducing wildfire risk and the forest health projects will result in forests that are better able to survive fires in the future.
- CAL FIRE will be able to provide co-benefits, such as protection of water, wildlife habitat and rural economic stability.
- Create and stimulate local economic growth, and future investment in long-term forest management infrastructure.
- The funding will enable numerous disadvantaged communities to create or enhance their urban forests.

Disadvantage:

- Less funding would be available to other departments for GHG projects.

Alternative 2: Approve a higher level of funding.

Cost:

- Unknown.

Advantage:

- Same advantages as Alternative 1.
- Further GGRF investments will help meet the new carbon goals within EO B-30-15, including more funds available for Research and Development of forest products that help store and utilize woody biomass.

- Expanded investment in new biomass facilities and/or technological upgrades to existing dated infrastructure
- The proposal will create greater acreages of resilient, healthy forests, and higher levels of carbon storage than Alternative 1.

Disadvantages:

- Less funding would be available to other departments for GHG projects.

Alternative 3: Status Quo

Cost:

- \$0

Advantage:

- Additional funding would be available to other departments for GHG projects.

Disadvantages:

- CAL FIRE will not be able to focus on reducing GHG emissions through increasing carbon sequestration in living forests and harvested wood products, which are one of the most effective strategies for reducing GHGs.
- Lack of GGRF investments will not enable CAL FIRE to help meet the Governor's new carbon goals pursuant to EO B-30-15.
- CAL FIRE would not be able to provide technical assistance, and grants to local governments, special districts, landowners, and non-profit organizations to further efforts to reduce GHG emissions in the future.
- CAL FIRE will not be able promote its goals and objectives as they pertain to Resource Management through outreach, technical assistance, and grant administration to entities not fully aware of program availability and use of best management practices.
- CAL FIRE will not have the ability to create healthier forests and bolster biomass or bioenergy efforts to address hazardous fuels and short-lived climate pollutants (SLCP), an especially harmful GHG element. The majority of black carbon SLCP is attributed to wildfire.
- CAL FIRE will have increased difficulty improving public safety by reducing wildfire risk.
- CAL FIRE will not be able to enhance co-benefits, such as protection of water, wildlife habitat, and rural economic stability.
- There will be less local economic growth, along with less future investment in long-term forest management infrastructure.
- Lack of funding will not enable numerous disadvantaged communities to create or enhance their urban forests.
- The current pattern of longer fire seasons, more intense and destructive fires, massive uncontrolled GHG emission, and negative impacts on water quality and quantity will continue to intensify.

G. Implementation Plan

During FY 2016-17, CAL FIRE will continue to further develop grant guidelines and an online grant application to foster landscape level multi-owner cooperative projects that benefit the largest number of owners and have the most compelling GHG reduction benefits. CAL FIRE will also evaluate grant applications and select grant awardees. In FY 2017-18, CAL FIRE will continue to implement grants and monitor projects for compliance with grant provisions.

H. Supplemental Information

None.

I. Recommendation

Alternative 1: Approve \$180 million GGRF in FY 2016-17, with position authority and associated funding in subsequent years through FY 2021-22 (see Attachment A), for a comprehensive forest health program that will increase and better secure forest carbon and reduce GHG emissions to meet the 2030 carbon goals within EO B-30-15. CAL FIRE will deploy comprehensive sustainable forestry practices to deliver Urban and Community Forestry, the Forest Legacy Program, and landscape-scale Forest Health–Climate Resilient projects to meet the new 2030 goals within EO B-30-15.

Proposed Budget Bill Language

Item 3540-001-3228

X. Notwithstanding subdivision (a) of Section 1.80, funds appropriated in this item shall be available for encumbrance and expenditure until June 30, 2019, for support or local assistance and shall be similarly available for liquidation until June 30, 2021, for forest health programs and urban forestry projects funded from the Greenhouse Gas Reduction Fund.

X. The Department of Finance may authorize the transfer of an amount from this item to Item 3540-101-3228 in order to implement forest health activities and urban forestry projects. Within 10 days after approval, the Director of Finance shall notify the Joint Legislative Budget Committee of the transfer approved pursuant to this provision and shall include a detail of the change in program delivery and the conditions necessitating the change.

X. Notwithstanding any other provision of law, the funds appropriated in this item for purposes of Division 10.5 (commencing with Section 12200) of the Public Resources Code shall be available for purposes of support or capital outlay.

Item 3540-101-3228

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X. Notwithstanding any other provision of law, the funds appropriated in this item for purposes of Division 10.5 (commencing with Section 12200) of the Public Resources Code shall be available for purposes of support or capital outlay.

FY 2016-17 Greenhouse Gas Emissions Reductions and Forest Carbon Storage through Forest Health Treatments BCP

AISA	Permanent	0.0	140,594	0.0	140,594	0.0	140,594	0.0	140,594	0.0	140,594	0.0	140,594
AGPA	Permanent	4.0	697,578	5.0	813,842	5.0	813,842	5.0	813,842	5.0	813,842	5.0	813,842
Software Systems Specialist	Permanent	0.0	-	1.0	154,304	1.0	154,304	1.0	154,304	1.0	154,304	1.0	154,304
Information Officer	Permanent	0.0	-	1.0	116,263	1.0	116,263	1.0	116,263	1.0	116,263	1.0	116,263
Staff Services Manager II	Permanent	1.0	148,024	1.0	148,024	1.0	148,024	1.0	148,024	1.0	148,024	1.0	148,024
Personal Services Subtotal		5.0	1,590,712	9.0	2,185,616	9.0	2,185,616	9.0	2,185,616	9.0	2,185,616	9.0	2,185,616
Operating Expenses Subtotal			477,000		574,000		482,000		482,000		482,000		482,000
Program Subtotal		5.0	2,067,712	9.0	2,759,616	9.0	2,667,616	9.0	2,667,616	9.0	2,667,616	9.0	2,667,616

Proposal Total												
	PY	FY 2016-17	PY	FY 2017-18	PY	FY 2018-19	PY	FY 2019-20	PY	FY 2020-21	PY	FY 2021-22
Personal Services Total	30.0	6,618,072	43.0	8,440,910	43.0	8,440,910	43.0	8,440,910	43.0	8,440,910	43.0	8,440,910
Operating Expenses Total		3,854,000		3,656,000		3,023,000		3,023,000		3,023,000		3,023,000
Grants State Operations Total		55,682,247		-		-		-		-		-
Grants Local Assistance Total		113,845,681		-		-		-		-		-
Proposal Total	30.0	180,000,000	43.0	12,096,910	43.0	11,463,910	43.0	11,463,910	43.0	11,463,910	43.0	11,463,910

FY 2016- 17 Greenhouse Gas Emissions Reductions and Forest Carbon Storage
through Forest Health Treatments BCP

Section 4799.05 is added to the Public Resources Code, to read: 4799.05. (a) The director may provide grants to, and enter into contracts or other cooperative agreements with, entities, including, but not limited to, private or nongovernmental entities, Native American tribes, or state, local, and federal agencies, for programs and their administration to improve forest health and reduce greenhouse gases.

(b) If a forest health and greenhouse gas reduction program is funded with moneys from the Greenhouse Gas Reduction Fund, created pursuant to Section 16428.8 of the Government Code, all statutory and program requirements specific to the fund shall be followed.