OMB Number: 4040-0004 Expiration Date: 03/31/2012

Application for Federal Assistance SF-424						
* 1. Type of Submission Preapplication	):		os of Application:	- It E	Revision	n, select appropriate leKer(s):
Freapplication		⊠ N	onlinualion	L ≭O⊮	her (Spe	ecity).
l ——	and Amelian had		evision		inai (cp.	ovity).
Changed/Correct	ви Аррисацоп					
* 9. Date Received: Completed by Grants,gov up	oon submission.	4. Appli	canl Idenlifier:			
5a. Federal Entity Identi	llier:			5	ib, Fede	eral Award Identifier:
State Use Only:						
6. Date Received by Sta	ale:		7. State Application	lden	nlilier:	
8. APPLICANT INFOR	MATION:					
*a. Legal Name: Arizona Board of Regents, University of Arizons						
* b. Employer/Taxpayer Identification Number (EIN/TIN): x c, Organizational DUNS;						
742652609				8	06345	56170000
d. Address:						
* Street1: Po	0 Box 2101	58				
Street2:						
* Cily: Tucson						
County/Pariah: Pima						
* State: AZ: Arizona						
Province:						
* Country: USA: UNITED STATES						
* Zlp / Postal Code: 8572:/-0/58						
e. Organizational Unit:						
Department Name:				0]	ivision i	Name:
Tree-Ring Lab				C	olleg	ge of Science
f. Name and contact information of person to be contacted on matters involving this application:						
Prefix:			* First Name	:	Blli	is
Middle Name:					7	
* Lasi Name: Margo	lis					
Suffix:						*
Tille: Research Ass	ociate			_		
Organizational Affiliation	:					
* Telephone Number:	520 626 2733				]	Fax Number:
*Emall: ellisqm@lt	rr.arizona.e	du				

-				
	-			

Application for Federal Assistance SF-424
* 9. Type of Applicant 1: Select Applicant Type:
8: Public/State Controlled Institution of Higher Education
Type of Applicant 2; Select Applicant Type:
Τγρο of Applicant 3: Select Applicant Type:
* Olher (specify):
* 10. Name of Federal Agency:
Forest Service
11. Catalog of Federal Domestic Assistance Number:
10.679
CFDA T(ue;
Collaborative. Forest Restoration
* 12. Funding Opportunity Number:
CFRP-RFA-FY-2013
* Tílle;
Collaborative Forest Restoration Program
13. Competition Identification Number:
Tille:
14. Areas Affected by Project (Cities, Countles, States, etc.):
Add Allachment Delete Allachment View Atlachment ;
Southern Mark Missing Street S
* 15. Descriptive Title of Applicant's Project:
Strategic Implementation in a Large Ponderosa Pine/Piñon-Juniper Landacape
·
Attach supporting documents as specified in agency instructions,
Add Allachments: Delete Attachments: View. Attachments:

Application for Federal Assistance SF-424				
16. Congressional Districts Of:				
* a. Applicant N2-003 b, Program/Project NM-003				
Attach an additional list of Program/Project Congressional Districts if needed.				
Add Attachment Paleta Attachment View Attachment				
17. Proposed Project:				
* a. Start Date: 01/01/2014 * b. End Date: 12/31/2016				
18. Estimated Funding (\$);				
* a. Federal 359, 494.19				
* b. Applicant . 84,527.55				
* c. 5(ale 0.00				
* d. Local 0.00				
*e. Other 5,346.00				
*1. Program Income 0.00				
* g. TOTAL 449, 367.74				
<sup>4</sup> 19. Is Application Subject to Review By State Under Executive Order 12372 Process 7				
a. This application was made available to the State under the Executive Order 12372 Process for review on				
b. Program Is subject to E.O. 12372 but has not been selected by the State for review.				
c. Program is not covered by E.O. 12372.				
* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yos," provide explanation in attachment.)				
☐ Yes ☐ No				
If "Yes", provide explanation and atlach				
Add Attachmant Delete Attachmant View Attachment				
21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictificus; or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)  ** I AGREE  ** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency				
epecific Instructione.				
Authorized Représentative:				
Prefix: *F/rsl Name: Leslie				
Middle Name:				
*Last Name: Tolbert				
Suffix: ph. D				
*Tille: Vice president for research				
* Telephone Number: (520) 626-6000 Fax Number: (520) 626-4137				
* Email: sponsor@email.arizona.edu				
* Signature of Authorized Representative: * Completed by Grants:gov upon submission. * Date Signed: Completed by Grants:gov upon submission.				
XXX all x KIDAL MILT ACTION				

\* Many Denow acting for Leslie P. Talbert for

OMB Number: 4040-0006 Expiration Date: 06/30/2014

# **BUDGET INFORMATION - Non-Construction Programs**

SECTION A - BUDGET SUMMARY

<	Grant Program Function or Activity (a) Collaborative Forest Restoration Program	Catalog of Federal Domestic Assistance Number (b) 10.679	Federal Non-Fe (c) (d)	Non-Federal (d)   (d)   (e)   (e)   (e)   (f)   (f)	Federal (e)	Non-Federal (f)	\$ Total (9)
7.	Totals		\$ 359,494.19	89,873.55		49	\$449,367.74

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories		GRANT PROGRAM. F	GRANT PROGRAM. FUNCTION OR ACTIVITY		Total
	(1)	(2)	(3)	(4)	(5)
	Collaborative Forest Restoration Program				
a. Personnel	\$ 65,400.00		•	•	\$ 65,400.00
b. Fringe Benefits	19,368.00				19,368.00
c. Travel	10,124.11				10,124.11
d. Equipment	00.00				
e. Supplies	1,780.00				1,780.00
f. Contractual	00.00				
g. Construction	00.00				
h. Other	226,875.90				226,875.90
i. Total Direct Charges (sum of 6a-6h)	323,548.01				\$ 323,548.01
j. Indirect Charges	35,946.18				\$ 35,946.18
k. TOTALS (sum of 6i and 6j)	\$ 359,494.19	\$	\$	\$	359,494.19
7. Program Income	00.00	49	\$	\$	\$
	•	Authorized for Local Bondaria	المرائدين المرا	Cton	Standard Eorm 424A (Box, 7, 67)

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		SECTION	SECTION C - NON-FEDERAL RESOURCES	AL RESOU	RCES		
	(a) Grant Program		(b) Applicant	cant	(c) State	(d) Other Sources	(e)TOTALS
<b>ဗ</b>	Collaborative Forest Restoration Program		₩	84,527.55		5,346.00	\$
တ်							
10.							
11.							
12. T	12. TOTAL (sum of lines 8-11)		8 \$	84,527.55		\$ 5,346.00	\$ 89,873.55
		SECTION D	D - FORECASTED CASH NEEDS	ED CASH NE	EDS		
		Total for 1st Year	1st Quarter	rter	2nd Quarter	3rd Quarter	4th Quarter
13. F	13. Federal	\$ 119,988.97	\$	29,997.25	29,997.24	\$	₩
14. N	14. Non-Federal	\$ 29,997.24		7,499.31	7,499.31	7,499.31	7,499.31
15. T(	15. TOTAL (sum of lines 13 and 14)	\$ 149,986.21	\$	37,496.56	37,496.55	37,496.55	\$ 37,496.55
	SECTION E - BUD	BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT	DERAL FUNDS I	NEEDED FC	OR BALANCE OF THE	PROJECT	
	(a) Grant Program				FUTURE FUNDING PERIODS	PERIODS (YEARS)	
			(b)First	st	(c) Second	(d) Third	(e) Fourth
<b>16.</b>	Collaborative Forest Restoration Program		<b>⇔</b>	119,774.02	119,731.20	9	\$
17.							
.8							
19.							
20. T(	20. TOTAL (sum of lines 16 - 19)		\$	119,774.02	119,731.20	\$	\$
		SECTION F	- OTHER BUDGET INFORMATION	ET INFORM	ATION		
21. D	21. Direct Charges:		22.	22. Indirect Charges:	arges: pre-determined 10%	10% of total cost	
23. R¢	23. Remarks: See letters from sub-awards describing non-fed	ribing non-federal contril	eral contributions = \$5,346				

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		•

OMB Number: 4040-0007 Expiration Date: 06/30/2014

### **ASSURANCES - NON-CONSTRUCTION PROGRAMS**

Public reporting burden for this collection of information is estimated to everage 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE:

Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

- Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
- Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
- Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
- Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
- Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
- 6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to; (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C.§§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation

- Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U. S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentially of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the regulrements of any other nondiscrimination stalute(s) which may apply to the application.
- 7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Reel Property Acquisition Policies Act of 1970 (P.L. 91-648) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
- 8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) Which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

- 9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C, §§327-333), regarding labor standards for federally-assisted construction subagreements.
- 10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
- 11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) Institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EQ) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 at seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205),
- 12. Will comply with the Wild and Scanic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system,

- 13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
- 14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
- 15. Will comply with the Laboratory Animal Walfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
- 16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
- 17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
- 18. Will comply with all applicable requirements of all other Faderal laws, executive orders, regulations, and policies governing this program.
- 19. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	* TITLE
Completed on submission to Grants.gov	Vice president for research
* APPLICANT ORGANIZATION	* DATE SUBMITTED 2/21/13
Arizona Board of Regents, University of Arizona	Completed on submission to Grants.gov

\* Mary Dersow acting for Leslie P. Talbert Of

Standard Form 424B (Rev. 7-97) Back

### **Instructions for Certification**

- 1. By signing and submitting this form, the prospective primary participant is providing the certification set out on the reverse side in accordance with these instructions.
- 2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out on this form. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
- 3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
- 4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- 5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
- 6. The prospective primary participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
- 7. The prospective primary participant further agrees by submitting this form that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transactions," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- 8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- 9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- 10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

### U.S. DEPARTMENT OF AGRICULTURE

# **Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989 Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency offering the proposed covered transaction.

### (BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
  - (a) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
  - (b) have not within a three-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - (c) are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
  - (d) have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

University of Arizona	Strategic Implementation in a
Organization Name	PR/Award Number or Project Name
Ellis Margolis - Research Associate	
Name(s) and Title(s) of Authorized Representative(s)	
914, 3	2/20/13
Signature(s)	Date

### U.S. DEPARTMENT OF AGRICULTURE

# CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS (GRANTS) ALTERNATIVE I - FOR GRANTEES OTHER THAN INDIVIDUALS

This certification is required by the regulations implementing Sections 5151-5160, of the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D; 41 U.S.C. 701 et seq.), 7 CFR Part 3017, Subpart F, Section 3017.600, Purpose. The January 31, 1989, regulations were amended and published as Part II of the MAY 25, 1990, Federal Register (pages 21681-21691). Copies of the regulations may be obtained by contacting the Department of Agriculture agency offering the grant.

### (BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

### Alternative I

- A. The grantee certifies that it will or will continue to provide a drug-free workplace by:
  - (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
  - (b) Establishing an ongoing drug-free awareness program to inform employees about --
    - (1) The dangers of drug abuse in the workplace;
    - (2) The grantee's policy of maintaining a drug-free workplace;
    - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
    - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
  - (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a):
  - (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
    - (1) Abide by the terms of the statement; and
    - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
  - (e) Notify the agency in writing, within 10 calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position, title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
    - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
    - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
    - (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

B.	The grantee may insert in the space provided	below the site(s) for the performance of work done in connection with the specific grant:
Place	e of Performance (Street address, city,	county, State, zip code)
1215 E	. Lowell St, Box 210045, Tucson, Pima, AZ 8572	21
Chec	ck  if there are workplaces on file	that are not identified here.
Univer	sity of Arizona	Strategic Implementation in a large pinon-juniper/ponderosa pine lands
Orga	nization Name	Award Number or Project Name
Ellis M	largolis - Research Associate	
Nam	e and Title of Authorized Representati	ve
9	145	2/20/13
Sign	ature C	Date /
		Instructions for Certification
1.	By signing and submitting this form, the grante	e is providing the certification set out on pages 1 and 2.
2.	The certification set out on pages 1 and 2 is a	material representation of fact upon which reliance is placed when the agency awards the grant. If it is

- 2. The certification set out on pages 1 and 2 is a material representation of fact upon which reliance is placed when the agency awards the grant. If it is later determined that the grantee knowingly rendered a false certification, or otherwise violates the requirements of the Drug-Free Workplace Act, the agency, in addition to any other remedies available to the Federal Government, may take action authorized under the Drug-Free Workplace Act.
- 3. Workplaces under grants, for grantees other than individuals, need not be identified on the certification. If know, they may be identified in the grant application. If the grantee does not identify the workplaces at the time of application, or upon award, if there is no application, the grantee must keep the identity of the workplace(s) on file in its office and make the information available for Federal inspection. Failure to identify all known workplaces constitutes a violation of the grantee's drug-free workplace requirements.
- 4. Workplace identifications must include the actual address of buildings (or parts of buildings) or other sites where work under the grant takes place.

  Categorical descriptions may be used (e.g., all vehicles of a mass transit authority or State highway department while in operation, State employees in each local unemployment office, performers in concert halls or radio studios).
- 5. If the workplace identified to the agency changes during the performance of the grant, the grantee shall inform the agency of the change(s), if it previously identified the workplaces in question (see paragraph three).
- 6. Definitions of terms in the Nonprocurement Suspension and Debarment common rule and Drug-Free Workplace common rule apply to this certification. Grantees' attention is called, in particular, to the following definitions from these rules:
  - "Controlled substance" means a controlled substance in Schedules I through V of the Controlled Substances Act (21 U.S.C. 812) and as further defined by regulation (21 CFR 1308.11 through 1308.15);
  - "Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes;
  - "Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, use, or possession of any controlled substance;
  - "Employee" means the employee of a grantee directly engaged in the performance of work under a grant, including: (i) all "direct charge" employees; (ii) all "indirect charge" employees unless their impact or involvement is insignificant to the performance of the grant; and, (iii) temporary personnel and consultants who are directly engaged in the performance of work under the grant and who are on the grantee's payroll. This definition does not include workers not on the payroll of the grantee (e.g., volunteers, even if sued to meet a matching requirement; consultants or independent contractors not on the grantee's payroll; or employees of subrecipients or subcontractors in covered workplaces).



Forest Service Santa Fe National Forest

Pecos/Las Vegas Ranger District P.O. Drawer 429 Pecos, New Mexico 87552 505-757-6121

File Code: 1580

Date: February 20, 2013

Ellis Margolis Laboratory of Tree-Ring Research University of Arizona 1215 E. Lowell Street Tucson, AZ 85721

Dear Ellis,

I am writing to endorse your proposed CFRP project: Strategic Implementation in a Large Ponderosa Pine/Piñon-Juniper Landscape. Our collaboration over the past year in the development of this proposal has resulted in a project that would complement our management objectives, restore forest ecosystems and benefit the many surrounding communities that utilize Rowe Mesa. I fully support the implementation of the proposed strategic treatments locations that were identified by our collaborative planning effort.

The proposed treatment area has the required National Environmental Policy Act (NEPA) documentation, which was accomplished jointly through CFRP grant 34-10. Our current collaboration on this CFRP planning grant has been productive (NEPA clearance of 17,500 acres) and we look forward to continuing to work with you and your partners.

Prior and ongoing CFRP projects on Rowe Mesa have been a great success and your project builds nicely off of those successes. I believe that returning low intensity fire to the landscape is not only beneficial to the ecosystems and the land users, but is also the most efficient restoration tool. We will add burning of your project area to our out-year planned program of work.

There will be some firewood and other small diameter biomass available from the project area. Forest products harvested as part of your CFRP project will be conveyed to you under Free Administrative Use authority provided in FSM 2463.1-1. Project-specific thinning guidelines will be developed using the Thinning Guidelines document found in Appendix G Sample Operational Guidelines for CFRP Fuels Reduction and Restoration Thinning Treatments on National Forest Lands of the 2013 Request for Applications.

The diverse group of project partners you have assembled will ensure that the project will satisfy the equally diverse, multi-use local needs that exist on this landscape. We thank you for choosing to help us move forward with the grand task of landscape-scale collaborative forest restoration on our District.

Sincerely,





### A. Personnel

Name/Position	Computation	Federal	Non-fed	Total
Ellis Margolis/Director, monitoring lead, education/ outreach	12months (1.0) X \$60,000 salary spread over 3 years	\$60,000.00	\$0.00	\$60,000.00
2 monitoring crew members	\$10/hr X 270hrs X 2 pers	\$5,400.00	\$0.00	\$5,400.00
Subtotal		\$65,400.00	\$0.00	\$65,400.00

The project coordinator is University of Arizona research associate Ellis Margolis (see attached bio). The project will take 12 months of his time, in total, spread out over three years (1.0 FTE). He is responsible for coordinating project administrative tasks, will hire and supervise two technicians, coordinate ecological monitoring field work including training of YCC crew, will attend the CFRP annual meetings, coordinate with Orlando Romero (Forest Guild) and the USFS to oversee implementation, and will be the lead on the final evaluation report. Two student field crew members will assist with the monitoring field data collection and data entry. The remainder of the personnel and budget descriptions are in the "other" (sub-award) category (section G. below).

B. Fringe benefits

Billing comonic				
Name/Position	Computation	Federal	Non-fed	Total
Director, monitoring,	31.2% X \$60,000	\$18,720.00	\$0.00	\$18,720.00
education/outreach				
2 monitoring crew members	12% X \$5400	\$648.00	\$0.00	\$648.00
Subtotal		\$19,368.00	\$0.00	\$19,368.00

Fringe benefit rates are pre-determined by University of Arizona policy: project coordinator/research associate -31.2% and student technicians -12%.

## C. Travel

Purpose/Location/Item	Computation	Federal	Non-fed	Total
Flights for meetings,	5 flights X \$250/flight	\$1,250.00	\$0.00	\$1,250.00
including Annual CFRP				
Workshop				
Vehicle rental and	Field vehicle	\$3,994.11	\$0.00	\$3,994.11
mileage/fuel (field work,	58.50/day,\$0.24/mi. X 28			
meetings, CFRP Annual	days, 4084mi; Sedan			
Workshop)	\$30/day, \$0.14/mi.X			
	24days,1440mi; Mileage		4	
	reimburse 1021 mi X			
	\$0.445/mi			
Travel expenses (per diem +	12days @ \$120, 3 CFRP	\$2,640.00	\$0.00	\$2,640.00
lodging) for meetings, CFRP	annual meetings; 12days @			

Annual Workshop	\$100, SFNF meetings			
Field crew meals	(28 days @ \$20/person/day X 4 persons)	\$2,240.00	\$0.00	\$2,240.00
Subtotal		\$10,124.11	\$0.00	\$10,124.11

Flights for project coordinator to attend CFRP annual workshop, USFS and collaborator meetings (5 total flights over 3 yrs). CFRP annual workshop lodging and per diem (\$120/day – 12 days over 3 yrs) and collaborator meetings lodging and per diem (\$100/day X 12 days over 3 yrs). Rental car from Albuquerque for meetings (sedan – 24 days total over 3 yrs + mileage for gas). UofA 4wd field vehicle for 28 field days for ecological monitoring (\$58.50/day + mileage). Mileage reimbursement for 1 trip to implementation site to observe treatments. Per diem (meals) for monitoring field crew; 28 days X \$20/day X 4 people.

D. Equipment: We will not purchase equipment (>\$5000) with this project.

E. Supplies:

z. suppiies.				
Supply items	Computation	Federal	Non-fed	Total
Field supplies	see annual budgets for details	\$200.00	\$0.00	\$200.00
Lab supplies	see annual budgets for details	\$400.00	\$0.00	\$400.00
Misc. supplies	see annual budgets for details	\$1,180.00	\$0.00	\$1,180.00
Subtotal		\$1,780.00	\$0.00	\$1,780.00

**Field supplies** – we will purchase field supplies for the ecological monitoring. Supplies include field tapes and plot measurement equipment (\$100/set X 2). **Lab supplies** - statistical and GIS software (\$400) for analysis of monitoring data. **Misc. supplies** – standard telephone, copying, printing, mailing, shipping and consumable supplies.

### F. Contracts:

G. Other costs: (sub-awards):

Sub-award	Computation	Federal	Non-fed	Total
sub-award: Thinning contractor (Caro's General Works)	\$300/acre X 550 acres	\$165,000.00	\$0.00	\$165,000.00
sub-award: Mastication contractor (Northeastern Construction)	\$275/acre X 125 acres	\$34,375.00	\$0.00	\$34,375.00
sub-award: Forest Guild	Cost: O. Romero 328hrs X\$58.17/hr: Contributed - YCC \$491/day X 6 days	\$19,080.00	\$2,946.00	\$22,026.00
sub-award: Sierra Club	Cost: 150 miles X \$0.445/mile + meeting space \$500: Contributed - 120 hrs X \$20/hr	\$566.75	\$2,400.00	\$2,966.75
sub-award: Ecotone	\$80/hr X 90 hrs; 1470 mi X .445/mile	\$7,854.15	\$0.00	\$7,854.15

Subtotal	\$226,875.90	\$5,346.00	\$232,221.90

Sub-award: Caro's general works – They will perform the forest thinning work (\$300/acre X 550 acres). Northeastern Construction – They will perform the forest mastication work (\$275/acre X 125 acres). Forest Guild – Orlando Romero, Senior Forester, will supervise and coordinate with the project lead (Ellis Margolis) and the USFS regarding the on-the-ground implementation activities (\$58.17/hr X 328 hrs over 3 yrs). The Forest Guild will *contribute* \$2,946 to the project in the form of 6 days of the Las Vegas YCC crew @ \$491/day (supervisor \$12/hr X 8 hrs; crew \$7.50/hr X 8 hr X 6 crew + 7.65%) FICA/MED). The crew will be trained in ecological monitoring and will assist in the collection of pre- and post-treatment monitoring data. Sierra Club will be the lead education/outreach organization. They will organize 2 educational field trips to the implementation site (pre- and post-treatment) and other successful CFRP restoration sites on Rowe Mesa, organize a related community education/outreach event, and collaborate with the UofA to write a forest restoration article for their newsletter (cost 150 miles X \$0.445/mile + meeting space reservation fee & office supplies for event announcements \$500; contributed time 120hrs X \$20/hr). Ecotone – Jan-Willem Jansens will be the lead on the socio-economic monitoring (90 hrs X \$80/hr + travel).

### **Total direct costs**

	Federal	Non-fed	Total
Total direct costs	\$323,548.01	\$5,346.00	\$328,894.01

### H. Indirect Costs:

Item	Computation	Federal	Non-fed	Total
Recovered by UofA	10% of total costs (11.11% of total direct cost)	\$35,946.18		\$35,946.18
Contributed by UofA	18.81% of total cost (26.12% of total direct cost)		\$84,527.55	\$84,527.55
Total indirect costs		\$35,946.18	\$84,527.55	\$120,473.73

**Indirect costs:** project-related indirect cost recovery at the rate pre-defined by the CFRP RFA (10% of total cost or 11.11% of direct costs). University of Arizona contributes an additional 26.1% of the total direct costs (18.81% of total costs) to the project, which is capped by the maximum of 20% of total cost for a non-federal contribution by the CFRP RFA.

### **Total cost**

Federal	Non-fed	Total
\$359,494.19	\$89,873.55	\$449,367.74

Budget Summary:

Budget category	Federal amount	Non federal amount
A. Personnel	\$65,400.00	\$0.00
B. Fringe Benefits	\$19,368.00	\$0.00
C. Travel	\$10,124.11	\$0.00
D. Equipment	\$0.00	\$0.00
E. Supplies	\$1,780.00	\$0.00
F. Contracts	\$0.00	\$0.00
G. Other	\$226,875.90	\$5,346.00
Total Direct Costs	\$323,548.01	\$5,346.00
H. Indirect Costs	\$35,946.18	\$84,527.55
Total Project Costs	\$359,494.19	\$89,873.55
Federal Request	\$359,494.19	
Non-federal amount	\$89,873.55	20% of total cost
<b>Total Project Cost</b>	\$449,367.74	

# **Strategic Implementation Budget Year 1**

Jan 2014-Dec 2014	CFRP Budget	Year 1		
A. Personnel				
Name/Position	Computation	Federal	Non-fed	Total
Director, monitoring, education/outreach	6 months (50%) X \$60,000 salary	\$30,000.00	\$0.00	\$30,000.00
2 monitoring crew members	\$10/hr X 150hrs X 2 pers	\$3,000.00	\$0.00	\$3,000.00
Subtotal		\$33,000.00	\$0.00	\$33,000.00
B. Fringe Benefits				
Name/Position	Computation	Federal	Non-fed	Total
Director	31.2% X \$30,000	\$9,360.00	\$0.00	\$9,360.00
2 monitoring crew members	12% X \$3000	\$360.00	\$0.00	\$360.00
Subtotal		\$9,720.00	\$0.00	\$9,720.00
C. Travel				
Purpose/Location/Item	Computation	Federal	Non-fed	Total
Flights for meetings, including Annual CFRP Workshop	2 flights X \$250/flight	\$500.00	\$0.00	\$500.00
Vehicle rental and mileage/fuel (field work, meetings, CFRP Annual Workshop)	Field vehicle \$58.50/day,\$0.24/mi. X 14 days, 2042mi; Sedan \$30/day, \$0.14/mi.X 8 days,480mi	\$1,616.28	\$0.00	\$1,616.28
Travel expenses (per diem + lodging) for CFRP Annual Workshop, collaborator meetings	4days @ \$120, CFRP annual meeting; 4 days @ \$100, SFNF meetings	\$880.00	\$0.00	\$880.00
Field crew meals	Field crew meals (14 days @ \$20/person/day X 4 persons)	\$1,120.00	\$0.00	\$1,120.00
Subtotal		\$4,116.28	\$0.00	\$4,116.28
D. Equipment	We will not purchase any equipm	ent with this pro	oject	
E. Supplies				

Supply items	Computation	Federal	Non-fed	Total
Field supplies				
Measuring tapes set (open reel, dbh, & staight measuring tapes)	\$100 set X 2	\$200.00	\$0.00	\$200.00
Misc supplies			\$0.00	\$0.00
Telepone, fax (\$/mo)	\$5 X 12	\$60.00	\$0.00	\$60.00
mail, shipping (\$/mo)	\$5 X 12	\$60.00	\$0.00	\$60.00
photocopying (\$/mo)	\$10 X 12	\$120.00	\$0.00	\$120.00
printing supplies (\$/mo)	\$10 X 12	\$120.00	\$0.00	\$120.00
consumable supplies	\$50 X 1	\$50.00	\$0.00	\$50.00
Subtotal		\$610.00	\$0.00	\$610.00
F. Contracts				
G. Other costs				
Sub-award	Computation	Federal	Non-fed	Total
sub-award: Ecotone	\$80/hr X 40 hrs; 700 mi X .445/mile	\$3,511.50	\$0.00	\$3,511.50
sub-award: Sierra Club	Cost: 75 miles X \$0.445/mile: Contributed - 40 hrs X \$20/hr	\$33.38	\$800.00	\$833.38
sub-award: Forest Guild	cost: O. Romero 154.72hrsX\$58.17/hr: contributed: YCC - 3 days X \$491/day	\$9,000.00	\$1,473.00	\$10,473.00
sub-award: Thinning opertor (Caro's)	\$300/acre X 160 acres	\$48,000.00	\$0.00	\$48,000.00
Subtotal		\$60,544.88	\$2,273.00	\$62,817.88
Total direct costs		\$107,991.16	\$2,273.00	\$110,264.16
H. Indirect costs				
Item	Computation	Federal	Non-fed	Total
Recovered by UofA	10% of total costs	\$11,997.82		\$11,997.82
Contributed by UofA	18.48% of Yr1 total costs		\$27,724.24	\$27,724.24
Total indirect costs		\$11,997.82	\$27,724.24	\$39,722.06
TOTAL Year One:		Federal	Non-fed	Total

\$119,988.97	\$29,997.24	\$149,986.22

# Strategic Implementation Budget Year 2

Jan 2015-Dec 2015	CFRP Budget	Year 2		
A. Personnel				
Name/Position	Computation	Federal	Non-fed	Total
Director, monitoring, education/outreach lead	3 months (25%) X \$60,000 salary	\$15,000.00	\$0.00	\$15,000.00
Subtotal		\$15,000.00	\$0.00	\$15,000.00
B. Fringe Benefits				
Name/Position	Computation	Federal	Non-fed	Total
Director	31.2% X \$15,000	\$4,680.00	\$0.00	\$4,680.00
Subtotal		\$4,680.00	\$0.00	\$4,680.00
C. Travel				
Purpose/Location/Item	Computation	Federal	Non-fed	Total
Flights for meetings, including Annual CFRP Workshop	2 flight X \$250/flight	\$500.00	\$0.00	\$500.00
Vehicle rental and mileage/fuel (site visit, meetings, CFRP Annual Workshop)	Sedan \$30/day, \$0.14/mi.X 8 days,480mi; Mileage reimburse 1021 mi X \$0.445/mi	\$761.55	\$0.00	\$761.55
Travel expenses (per diem + lodging) for meetings, CFRP Annual Workshop	4days @ \$120, CFRP annual meeting; 4 days @ \$100, SFNF meetings	\$880.00	\$0.00	\$880.00
Subtotal		\$2,141.55	\$0.00	\$2,141.55
D. Equipment	We will not purchase any equip	ment with this	project	
E. Supplies				
Supply items	Computation	Federal	Non-fed	Total
software	\$150 X 2	\$300.00	\$0.00	\$300.00
Misc supplies			\$0.00	\$0.00
Telepone, fax (\$/mo)	\$5 X 12	\$60.00	\$0.00	\$60.00

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mail, shipping (\$/mo)	\$5 X 12	\$60.00	\$0.00	\$60.00	
photocopying (\$/mo)	\$10 X 12	\$120.00	\$0.00	\$120.00	
printing supplies (\$/mo)	\$10 X 12	\$120.00	\$0.00	\$120.00	
consumable supplies	\$50 X 1	\$50.00	\$0.00	\$50.00	
Subtotal		\$710.00	\$0.00	\$710.00	
F. Contracts					
G. Other costs					
Sub-award	Computation	Federal	Non-fed	Total	
sub-award: Ecotone	\$80/hr X 4 hrs + \$0.445 X 70 miles	\$351.15	\$0.00	\$351.15	
sub-award: Sierra Club	Cost: meeting space & supplies \$500: Contributed - 40hrs X \$20/hr	\$500.00	\$800.00	\$1,300.00	
sub-award: Forest Guild	O. Romero: 86.64hrsX\$58.17/hr	\$5,040.00	\$0.00	\$5,040.00	
sub-award: Thinning operator (Caro's)	\$300/acre X 150 acres	\$45,000.00	\$0.00	\$45,000.00	
sub-award: Mastication operator (Northeast Construct.)	\$275/acre X 125 acres	\$34,375.00	\$0.00	\$34,375.00	
Subtotal		\$85,266.15	\$800.00	\$86,066.15	
Total direct costs		\$107,797.70	\$800.00	\$108,597.70	
H. Indirect costs					
Item	Computation	Federal	Non-fed	Total	
Recovered by UofA	10% of total costs	\$11,976.32		\$11,976.32	
Contributed by UofA	19.47% of Yr2 total costs		\$29,143.50	\$29,143.50	
Total indirect costs		\$11,976.32	\$29,143.50	\$41,119.83	
TOTAL Year Two:		Federal	Non-fed	Total	
		\$119,774.02	\$29,943.50	\$149,717.52	

# **Strategic Implementation Budget Year 3**

Jan 2016-Dec 2016	CFRP Budget	Year 3		
A. Personnel				
Name/Position	Computation	Federal	Non-fed	Total
Director, monitoring, education/ outreach	3 months (25%) X \$60,000 salary	\$15,000.00	\$0.00	\$15,000.00
2 monitoring crew members	\$10/hr X 120hrs X 2 pers	\$2,400.00	\$0.00	\$2,400.00
Subtotal		\$17,400.00	\$0.00	\$17,400.00
B. Fringe Benefits				
Name/Position	Computation	Federal	Non-fed	Total
Director, monitoring, education/ outreach	31.2% X \$15,000	\$4,680.00	\$0.00	\$4,680.00
2 monitoring crew members	12% X \$2400	\$288.00	\$0.00	\$288.00
Subtotal		\$4,968.00	\$0.00	\$4,968.00
C. Travel				
Purpose/Location/Item	Computation	Federal	Non-fed	Total
Flights for meetings, including Annual CFRP Workshop	1 flight X \$250/flight	\$250.00	\$0.00	\$250.00
Vehicle rental and mileage/fuel (monitoring, site visit, meetings, CFRP Annual Workshop)	Field vehicle \$58.50/day,\$0.24/mi. X 14 days, 2042mi; Sedan \$30/day, \$0.14/mi.X 8 days,480mi	\$1,616.28	\$0.00	\$1,616.28
Travel expenses (per diem + lodging) for meetings, CFRP Annual Workshop	4days @ \$120, CFRP annual meeting; 4 days @ \$100, SFNF meetings	\$880.00	\$0.00	\$880.00
Field crew meals	Field crew meals (14 days @ \$20/person/day X 4 persons)	\$1,120.00	\$0.00	\$1,120.00
Subtotal		\$3,866.28	\$0.00	\$3,866.28
D. Equipment	We will not purchase any equipme	nt with this pro	ject	
E. Supplies				

Supply items	Computation	Federal	Non-fed	Total
software	\$100 X 1	\$100.00	\$0.00	\$100.00
Misc supplies			\$0.00	\$0.00
Telepone, fax (\$/mo)	\$5 X 12	\$60.00	\$0.00	\$60.00
mail, shipping (\$/mo)	\$5 X 12	\$60.00	\$0.00	\$60.00
photocopying (\$/mo)	\$10 X 12	\$120.00	\$0.00	\$120.00
printing supplies	\$10 X 12	\$120.00	\$0.00	\$120.00
(\$/mo)				
Subtotal		\$460.00	\$0.00	\$460.00
F. Contracts				
G. Other costs				
Sub-award	Computation	Federal	Non-fed	Total
sub-award: Ecotone	\$80/hr X 46 hrs; 700 mi X .445/mile	\$3,991.50	\$0.00	\$3,991.50
sub-award: Sierra Club	Cost: 75 miles X \$0.445/mile: Contributed: - 40 hrs X \$20/hr	\$33.38	\$800.00	\$833.38
sub-award: Forest Guild	Cost: O. Romero 86.64hrsX\$58.17/hr: Contributed: YCC crew \$491/day X 3 days	\$5,040.00	\$1,473.00	\$6,513.00
sub-award: Thinning contractor (Caro's)	\$300/acre X 240 acres	\$72,000.00	\$0.00	\$72,000.00
Subtotal		\$81,064.88	\$2,273.00	\$83,337.88
Total direct costs		\$107,759.16	\$2,273.00	\$110,032.16
H. Indirect costs				
Item	Computation	Federal	Non-fed	Total
Recovered by UofA	10% of total costs	\$11,972.04		\$11,972.04
Contributed by UofA	18.48% of Yr3 total costs		\$27,659.80	\$27,659.80
Total indirect costs		\$11,972.04	\$27,659.80	\$39,631.84
TOTAL Year Three:		Federal	Non-fed	Total
		\$119,731.20	\$29,932.80	\$149,664.00

University of Arizona, 1215 E. Lowell Street, Box 210045, Tucson, AZ 85721

Ellis Margolis, <u>ellisqm@ltrr.arizona.edu</u>, w - (520) 626 2733, c - (404) 668-3272

Amount requested: \$359,494.19 Non-federal match: \$89,873.55

Project location: Santa Fe National Forest, San Miguel County

Project category: Implementation

a. Project Title: Strategic Implementation in a Large Ponderosa Pine/Piñon-Juniper Landscape

b. Executive Summary: The amount of forest at risk of high-intensity wildfire is too large, and the resources are too limited, to restore small, isolated forest patches. We propose to effectively treat 2,500 acres by implementing strategically located thinning and mastication treatments on 675 acres in the most effective locations for reducing high-intensity fire spread. The strategic treatments will be followed by prescribed fire on the entire 2,500 acres. Treatment locations were pre-determined from a landscape assessment that included fire spread modeling, which indicated that strategically located treatment on just 20% of the forest would reduce catastrophic fire risk on 70% of the landscape. This is the first CFRP project to propose strategic implementation explicitly developed within a landscape-scale context, which will maximize the effectiveness of limited CFRP resources. The mechanical treatments will provide much-needed jobs (13 jobs) to the local communities and will come at a reduced cost to the project by using equipment purchased from a prior CFRP grant and an agreement with the Forest Service for the operators to obtain free-use permits to collect fuel wood. Importantly, we will also provide free use permits for fuel-wood for local residents who depend on this natural resource. Using a restoration curriculum developed in prior CFRP projects we will build on the success of prior youth education efforts through field-based skill development (monitoring training) for the Las Vegas YCC crew (10-15 youth). Continuing dialog with local residents through field-based outreach (60 - 100 adults) and through the Sierra Club newsletter (~ 8,000 people) will foster support for the proposed implementation and future restoration in the region.

**Partners**: Santa Fe National Forest Pecos/Las Vegas Ranger District (SFNF PLVRD); Santa Fe National Forest Supervisors Office (SFNF SO); University of Arizona (UofA); Ecotone; Forest Guild; Northeastern Construction (NEC); Caro's General Works (Caro's); and the Northern New Mexico Group of the Sierra Club (Sierra Club).

**c. Statement of Need:** Like much of the West, frequent fires historically burned abundant grass cover on Rowe Mesa and maintained a relatively open ponderosa pine and piñon-juniper savanna. Through a site-specific landscape assessment, we used tree-ring fire scars and tree ages to determine that the last widespread fire occurred in 1870, and since then the forest density has increased six fold, predominantly through infill of small, dense piñon and juniper trees (Margolis

2011, CFRP project 34-10). This is reflected in the Fire Regime Condition Class (FRCC), which indicates that 95% of the area has a high or moderate departure from historical fire regimes. Consequently, the risk of unnatural, large, high intensity catastrophic fire has greatly increased and now threatens to destroy the remaining old and large trees (e.g., tree-ring dated piñon, juniper and ponderosa pine > 400 years old), degrade the upper Galisteo, Pecos, and Estancia watersheds, destroy wildlife habitat, threaten life and property of residents, and severely impact human uses of the landscape (e.g., fuel-wood collection, grazing, recreation, piñon harvest, and hunting).

Who will benefit from this project and how will they benefit?

Restoration would directly benefit local residents by reducing fire risk for those who live on Rowe/Glorieta Mesa and adjacent Wildland Urban Interface areas in Rowe, Glorieta, and Cañoncito. Two of the adjacent communities (Ojo de la Vaca/Glorieta Mesa and Cañoncito) are on the list of *New Mexico Communities at Risk*. Additionally, restoration would benefit local and region-wide residents who depend on the natural resources on Rowe Mesa for fuel-wood, grazing, recreation, piñon harvest, and hunting. Lastly, local residents would benefit through free permits for fuel wood, which is an important source of heat and income. Downstream residents would benefit from potentially greater storm water infiltration in forest soils, which would reduce erosion, flood impacts, and recharge aquifers that support people's drinking water supplies.

**d. Project History:** There have been multiple fire reintroduction, forest restoration and planning projects on Rowe Mesa, which we will build upon and most importantly, link together. Our proposed implementation project builds most directly off of a landscape-scale planning grant (CFRP 34-10) that assessed the landscape condition, existing treatments, and modeled fire spread to identify our top priority, *strategic* implementation areas. This planning grant set the stage for future landscape-scale work on Rowe Mesa with a NEPA clearance of 17,500 acres (Appendix E), making it a high regional priority for future restoration. Importantly, our cost/acre for mastication is reduced (\$275/acre) because our mastication operator will re-use equipment purchased through a prior CFRP grant (33-09).

Multiple prior CFRP implementation projects (25-01 and 23-04) were conducted within the grazing allotment on Rowe Mesa known as the Valle Grande Grass Bank. This area was managed collaboratively to alleviate pressure on overgrazed land in the region. A recent CFRP project (33-09) completed NEPA requirements for thinning and burning on 3,200 acres of the adjacent Barbero grazing allotment, of which 800 acres have been treated. The USFS has also conducted multiple recent prescribed burns on the mesa (Madrid I, 1998, Southwest Pasture, 1999; Madrid II, 2001; and Valle GrandeII, 2011) and is planning to use fire over large areas (multi-thousand acre burns). Our CFRP landscape assessment and planning grant (34-10) developed a comprehensive long-term plan for landscape-scale restoration, and our proposed implementation project targets the key pieces of land that need to be treated to tie the prior

restoration work together and create resilience to future landscape-scale fires (see map, Appendix A).

An additional key component of prior CFRP projects on the Mesa was development of educational outreach and youth training. A youth education classroom and field curriculum covering ecosystem restoration and fire ecology was developed in CFRP project 23-04 and expanded in CFRP 34-10. The curriculum is publicly available online: <a href="http://www.forestguild.org/ycc.html">http://www.forestguild.org/ycc.html</a>). We will use this curriculum for field education and training for youth from the nearby Las Vegas YCC crew. We strongly believe that the continuation of the youth education and training is a key component of forest restoration so that future generations will support and be able to take part in the workforce of future restoration projects.

### e. Project partners

Table 1. Project partners and roles for the proposed implementation project.

Collaborator	PD	R	ЕО	M	T	U	\$+
SFNF Pecos/Las Vegas RD	X	X	X	X	X	X	
SFNF Supervisors Office	X	X			X		
University of Arizona	X	X	X	X	X		X
Forest Guild	X	X	X	X	X		X
Ecotone	X	X	X	X			
Sierra Club	X		X	X			X
Northeastern Construction	X				X	X	
Caro's General Works	X				X	X	

φ. A letter of commitment from each collaborator is included in the appendix.

### KEY:

PD: the partner assisted in proposal development

R: the partner has access to and will provide research about the proposed project area

EO: the partner will provide education and outreach to students and community;

M: the partner will participate in the Multiparty Monitoring Team

T: the collaborator will participate in the treatment of proposed project area

U: the collaborator will participate in utilization of small diameter product

\$+: the partner is providing non-Federal match as cash or in-kind to the project. A detailed letter of commitment is provided in the appendix and information is provided in the budget detail.

Ellis Margolis, research associate at the University of Arizona, Tree-Ring Lab, will be the Project Coordinator, primary CFRP contact, and will attend the annual CFRP meeting to represent the project collaborators.

### f. Objectives

Our project objectives fulfill the three applicable CFRP program objectives (1 - 3).

<u>Our first objective</u> is to effectively treat 2,500 acres of old-growth forest through mechanical treatment of 675 acres followed by prescribed fire. The project area and the strategic mechanical treatment locations were identified by a landscape assessment and fire modeling (CFRP planning grant 34-10) as the *most effective* locations to reduce fire spread on the 70,000 acre Rowe Mesa landscape. This objective satisfies **CFRP objectives #1** "Reduce the threat of large, high-intensity wildfires and the negative effects of excessive competition between trees by restoring ecosystem functions, structures, and species composition" and **CFRP Objective #2** "Reestablish fire regimes approximating those that shaped forest ecosystems prior to fire suppression."

<u>Our second objective</u> is to use the thinned small diameter trees as fuel wood that will be provided free-of-cost to (1) local users and (2) the thinning operators to offset treatment cost, which will enable the treatment of more acres with the limited CFRP funding. This objective satisfies **CFRP objective #3**, "Improve the use of, or add value to, small diameter trees."

<u>Our third objective</u> is to expand upon the youth education/training and adult outreach through field education and skill training (ecological monitoring) for local youth from the Las Vegas YCC crew, newsletter stories, outreach tours, and public events for local residents and conservation groups to our proposed restoration sites and other successful restoration efforts on Rowe Mesa.

<u>Our fourth objective</u> is to use a multi-party assessment to (a) monitor project completion, (b) treatment effectiveness (existing ecological conditions vs post-treatment conditions and desired conditions) by using the core ecological indicators, and (c) to monitor local socio-economic effects of the project through tracking of jobs, people trained, and education/outreach participation.

Proposed activities: Based on tree age and tree diameter measurements collected in the landscape assessment (CFRP 34-10), we developed a prescription of thin-from-below with a diameter cap of 12" drc (diameter at root crown). Mastication treatments will be used in areas with lower tree densities and along a private property boundary. The remaining denser forests will be hand thinned. Particular attention will be paid to the old and large trees identified during the landscape assessment; such that fuels will be removed from a buffer around these trees to prevent excessive scorch or torching during fire. The Pecos/Las Vegas Ranger District agreed to allow the mechanical treatment operators to take small-diameter material cut during the treatments. In exchange, the operators agreed to a lower treatment cost/acre (thus adding value to small diameter material). Following thinning, the Forest Service will open the area to the public through free-use permits for wood collection (see letter of endorsement). In addition to reducing fuel loads before burning, this will greatly benefit the local community who depend on small diameter trees for fuel-wood. This model was used in a prior CFRP project on the mesa (25-01). Mechanical treatments will be scheduled to occur outside of the late-spring/summer time window that is critical for breeding birds. Using experienced local operators, and through

oversight by an experienced and knowledgeable implementation manager, (Orlando Romero, Forest Guild) the safety of operators / operations will be assured.

Our prescription will restore the forest structure and composition similar to when fires still burned frequently on Rowe Mesa (before ~ 1870) and protect the remaining old and large trees from excessive competition and crown fire hazard posed by the existing overly dense forest. Within the 2,500 acre treatment unit this "thin-from-below" prescription will be implemented in the areas (675 acres) prioritized by the FlamMap Treatment Optimization model (see map, Appendix A). By running hundreds of combinations of treatment locations and simulated fires, the model was used to determine that these areas were the most effective at reducing high-intensity fire behavior not only within the thinned areas, but also outside (e.g., downwind) of the thinned areas (Ager et al. 2010, Finney et al. 2007). This is accomplished by reducing the continuity of fuels and tree crown cover so that high intensity fire could not spread outside of treated areas to adjacent forest stands. Thus, by thinning only 675 acres, 2,500 acres are effectively "treated" with a first entry and ready for low intensity prescribed fire or managed wildfire at historic return intervals (average of 8 years), which the Pecos/Las Vegas District has committed to doing (see letter of commitment). Additionally, because of the central, "keystone" location of these treatments adjacent to prior CFRP treatments and recent prescribed fires, upon completion there will be over 7,000 acres that will be more resilient to wildfire and available to be burned with low severity fire. This complements a collaborative effort between the Santa Fe National Forest and the NM State Game and Fish that has prioritized Rowe Mesa for landscapescale prescribed fire. Restoration (mechanical treatment and/or burning) with this strategic approach within a landscape-scale context is necessary to begin to tackle the overwhelming amount of forest at risk of unnatural high intensity wildfire in New Mexico. These large, strategic, fire-focused approaches are perhaps more urgent given the extremely large catastrophic fires in recent years (e.g., Las Conchas Fire).

Scientific justification: It is well documented that human-caused exclusion of frequent fires in Southwestern ponderosa pine forests has increased tree density and unnaturally increased high-intensity fire risk (Allen et al. 2002). However, there is less understanding of historical forest structure and fire regimes in piñon-juniper forests in the Southwest. In a recent review of piñon/juniper ecosystems of the Western U.S., Romme et al. (2009) stated that "pre-1900 disturbance regimes in piñon-juniper savannas are not well understood." Therefore, to guide restoration efforts in this poorly understood forest type that dominates Rowe Mesa, and many parts of New Mexico, we derived historical fire and forest structure information from tree-rings, historical photos, Fire Regime Condition Class and Terrestrial Ecosystem Unit data (Margolis 2011, Rowe Mesa Landscape-scale Assessment, CFRP 34-10). We determined that much like pure Southwestern ponderosa pine forests, the piñon-juniper/ponderosa pine forests on Rowe Mesas were indeed historically maintained as a more open forest savanna by frequent, low intensity fire (mean fire frequency was 8 years, ranging from 1 to 20 years). Reconstructed tree densities at the time of the last widespread fire (1870) averaged 70 trees/acre, whereas the

current forest density has increased six-fold to an average of 440 trees/acre, 93% of which regenerated after the last fire (< 130 years old).

*Location:* Rowe Mesa is located in San Miguel County, managed by the Pecos/Las Vegas Ranger District of the SFNF. The proposed implementation area is in the south-central portion of the mesa (see map - Appendix A). The large mesa serves a multi-use purpose for local private landowners and many surrounding communities including Rowe, Pecos, Glorieta, Las Vegas, Mora, and Santa Fe. The mesa is traditional use land of Jemez, Santa Clara, and Santo Domingo Pueblos, among others. The small portion of the proposed treatment area bordering private land will be masticated to provide a more defensible fuel break.

Sustainability: Restored ecosystems enhance the sustainability of communities that depend on them for many ecosystem services (e.g., fuel wood, grazing, hunting, and piñon harvest). This proposed restoration treatment is a critical piece within the larger Rowe Mesa landscape, and is the first of many treatments within a 17,500 acre NEPA clearance made possible through CFRP planning grant (34-10). The long-term sustainability and resilience of this heavily used, locally-important landscape will be enhanced through the collaborative partnerships among the many interested groups collaborating in this proposal and from prior collaborations (e.g., Forest Guild, Sierra Club, Quivira Coalition, Four Corners Institute, Crane Collaborations, Caro's General Works, Ecotone, Northeastern Construction, and the Forest Service).

### Education and outreach:

Our collaborative group is committed to education and outreach, particularly for local youth and local community members. Our education and outreach efforts will include:

- 1) The Forest Guild's Youth Conservation Corps crew out of the Pecos/Las Vegas Ranger District will be trained in ecological monitoring skills and assist in the pre-and post- treatment ecological monitoring of the project area. In addition, we will also teach them about fire and forest restoration using activities from the restoration ecology curriculum developed as part of the Rowe Mesa CFRP planning grant (34-10). This field-based curriculum was successfully tested with local YCC crews (CFRP 34-10) and is publically available on the Forest Guild website.
- 2) The Sierra Club will lead the effort to build on successful restoration education and outreach to the local communities and user groups through field tours of the restoration sites, public forums, and through their quarterly newsletter that reaches  $\sim 8,000$  members in New Mexico. Site specific ecological information (e.g., fire and forest history) that was gathered as part of the landscape assessment by the UofA (CFRP 34-10) to guide the restoration efforts will be used as the core content for the outreach presentations and newsletter articles.

### g. Work Plan

Table 2. Timeline.

What will be done?	Who will do it?	When will it be
		completed?

1 <sup>st</sup> multiparty meeting	UofA, SFNF PLV RD	Completed 10/2012
Identify implementation contractors	UofA, SFNF PLV RD, Forest Guild, NEC, Caro's	Completed 1/2013
2 <sup>nd</sup> multiparty meeting	All collaborators	Yr1Q1
Organization and administration	UofA, Forest Guild	Yrs1-3
Implementation	NEC, Caro's, Forest Guild, UofA, SFNF PLV RD, SFNF SO	Yr1Q2 – Yr3Q3
Youth Education; field trip/monitoring training	UofA, Forest Guild YCC	Yr1Q3 Yr3Q3
Adult Outreach	Sierra Club, UofA, SFNF PLV RD	Development: Yr1Q1-2 Implementation: Yrs1-3Q4
Monitoring: Implementation,	UofA (lead), MPMT	Implementation: Yr1-Yr3
Ecological,	UofA (lead), MPMT	Ecological: Yr1Q1, Yr3Q3
Socio-economic	Ecotone (lead), MPMT	Socio-economic: Yr1-Yr3
Evaluation Report to Forest Service	All (UofA lead)	Yr3Q4

 $Yr1Q1 = 1^{st}$  quarter of project year 1; MPMT = multi-party monitoring team – see Table 1

# h. Monitoring and Evaluation Plan.

The UofA will be the monitoring lead in collaboration with the multiparty monitoring team (Table 1). All data will be housed at the UofA. We will use multiple methods to monitor and evaluate our project, with the goal of assessing and reporting on project impact and effectiveness, and additionally to make changes and improvements as we go along. In general, we will follow the methods from the CFRP Multiparty Monitoring Short Guide. First we will use implementation monitoring to evaluate the accomplishment of our project objectives. Second, to evaluate the ecological effects of the implementation treatments we will use the core ecological monitoring indicators: canopy cover (%), understory cover (% ground, herbaceous, and/or shrub), surface fuels (tons/acre), crown base height (ft.), and stand structure components (tree species, size, and density). Desired future ecological conditions will come from reconstructed forest variables (~ 1870, before fire exclusion) that were quantified in the associated landscape assessment and planning grant (CFRP 34-10). Additionally, we will quantify the presence of invasive plant species to monitor effects of treatments on invasive species abundance, and take plot photos pre- and post-treatment. The socio-economic monitoring will describe the socioeconomic conditions of the proposed project area and the desired future condition (e.g., number of jobs created, number of people trained, and education/outreach participation). Additionally, we will use a scenario evaluation to further identify the socio-economic effects of: (1) catastrophic fire, (2) no-action, and (3) project implementation. Beyond the standard monitoring approaches, we will also implement a less formal, on-the-go evaluation (particularly for the initial implementation treatments) similar to the "after action review" process recently implemented in the Forest Service.

Table 3. Monitoring: desired outcome and monitoring variables

Implementation monitoring: project objectives	Desired outcome	Monitoring variables
Was the project collaborative?	Increased collaboration throughout project	# of meetings, meeting attendance, meeting notes
Were treatment acreage goals met?	Mech. treatment of 675 acres.	Annual treatment contractor performance evaluations
Were youth trained and educated on ecological restoration and monitoring?	15 - 20 youth from YCC participating in ecological monitoring	Youth monitoring attendee evaluations
Was the community educated about local forest and fire restoration issues?	60 – 100 field trip participants; 8,000 Sierra Club newsletter recipients	Field trip attendance, field trip attendee evaluations, comments on newsletter stories
Did the monitoring assess and report on the impacts and effectiveness of the project?	Multiparty monitoring tasks completed	Annual and project-end multi- party monitoring and evaluation reports
Existing socioeconomic condition	Desired future condition	Sample measurements
Lack of forest restoration job opportunities	Increase number of restoration job opportunities	Number, type and FTE of jobs
Need for more local workers and youth with forest restoration skills	Increased number of workers (and youth) with forest restoration skills	Surveys for restoration workers and youth involved in monitoring describing skills gained.
Incomplete understanding of historical role of fire in maintaining forested ecosystems in NM	Increased awareness and ecological background for specific project and overall forest restoration efforts	Number of events, number of attendees, attendees evaluation of events, number of newsletter recipients
Existing ecological condition	Desired future condition	Sample measurements*
High density (avg. > 400 trees/acre) of small trees (< 12" drc)	Similar to historical: (< 100 trees/acre) dominated by larger trees (> 12" drc)	Tree density, diameter, composition, plot photos in 4 cardinal directions
Low grass & herbaceous cover and high canopy cover	Increase understory cover and reduce canopy cover	2 understory and canopy cover transects per plot
Variable surface and crown fuel loads	Change fuels structure to be more conducive to surface fire	Brown's transects, crown base height
Invasive species present? Unknown	No change or reduction in invasive species abundance	Non-native species surveys

<sup>\*</sup> All ecological variables will be measured in 30 treated and 30 untreated (control) fixed-radius common stand exam plots pre- and post-treatment. NMFWRI and USFS protocol will be followed so data can be shared and compared with other monitoring data.

Thank you for considering our proposal - Ellis Margolis (project coordinator)

### Literature Cited

- Ager, A.A., N.M. Vaillant, and M.A. Finney. 2010. A comparison of landscape fuel treatment strategies to mitigate wildland fire risk in the urban interface and preserve old forest structure. For. Ecol. Manag. 259(8):1556–1570.
- Allen, C.D., Savage, M., Falk, D.A., Suckling, K.F., Swetnam, T.W., Schulke, T., Stacey, P.B., Morgan, P., Hoffman, M., Klingel, J.T., 2002. Ecological restoration of Southwestern ponderosa pine ecosystems: A broad perspective. Ecological Applications 12, 1418-1433.
- Finney, M.A., R.C. Seli, C.W. McHugh, A.A. Ager, B.Bahro, and J.K. Agee. 2007. Simulation of long-term landscape-level fuel treatment effects on large wildfires. Intl. J. Wildl. Fire. 16:712-727.
- Margolis, E.Q. 2011. Rowe Mesa landscape assessment for restoration planning. Submitted to USDA Forest Service Pecos/Las Vegas Ranger District for CFRP grant 34-10.
- Romme, W.H., Allen, C.D., Balley, J.D., Baker, W.L., Bestelmeyer, B.T., Brown, P.M., Eisenhart, K.S., Floyd, M.L., Huffman, D.W., Jacobs, B.F., Miller, R.F., Muldavin, E.H., Swetnam, T.W., Tausch, R.J., Weisberg, P.J., 2009. Historical and Modern Disturbance Regimes, Stand Structures, and Landscape Dynamics in Piñon-Juniper Vegetation of the Western United States. Rangeland Ecology & Management 62, 203-222.

# **Appendices:**

- A. Map
- B. Key personnel qualifications
- C. Letters of commitment
- D. Letters to tribes and pueblos
- E. NEPA decision document

# Appendix A. Proposed project area map.

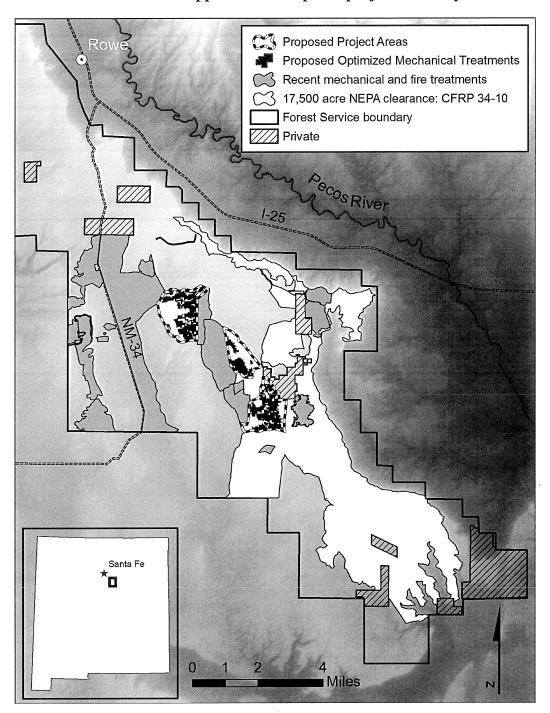


Figure 1. Proposed project areas (2,500 acres) and proposed optimized mechanical treatments (675 acres) that are part of broader landscape-scale restoration on Rowe Mesa, San Miguel County, NM (T13N, R13E). The proposed treatment areas build upon, and most importantly, connect multiple prior CFRP projects including the 17,500 acre phased NEPA clearance for landscape-scale restoration and prescribed fire (CFRP planning grant 34-10). Map by Ellis Margolis, 2/1/2013.

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# Appendix B Key Personnel Qualifications

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Ellis Margolis (Ph.D. in Watershed Management, University of Arizona Laboratory of Tree-Ring Research, School of Natural Resources) I have conducted applied fire and forest ecology research in northern New Mexico for over 10 years. I served as a Technical Advisor Group member for the Santa Fe watershed ecosystem restoration project. As part of this project I collaborated extensively with Santa Fe National Forest personnel and others to provide the best available historical ecological information to guide restoration activities. I co-wrote the Forest Management recommendation for the upper Santa Fe Watershed with Dr. Melissa Savage (Four Corners Institute) as part of CFRP grant # 27-07. Within the last two years I have been the director of three projects developing applied ecological restoration information from tree-rings for public land management agencies and has published in top-level forestry journals. Since 2010 I have been the coordinator of CFRP grant (34-10) that completed a landscape assessment and NEPA clearance for 17,000 acres on Rowe Mesa that outlines a long-term plan for landscape-scale, fire-focused, ecosystem restoration.

#### **Relevant Publications**

- Margolis, E.Q. 2011. Rowe Mesa Landscape Assessment. Final report to the Santa Fe National Forest. On file at the Pecos Ranger Station.
- Margolis, E.Q., Balmat, J., 2009. Fire history and fire-climate relationships along a fire regime gradient in the Santa Fe Municipal Watershed, NM, USA. Forest Ecology and Management 258, 2416-2430.
- Margolis, E.Q., Swetnam, T.W., Allen, C.D., 2007. A stand-replacing fire history in upper montane forests of the Southern Rocky Mountains. Canadian Journal of Forest Research 37, 2227-2241.

# ORLANDO ROMERO Lot 6, La Vela, Santa Fe, NM 87505 Office (505) 983-8992 ext. 13 Home (505) 471-2137

Cell 470-0032

**EDUCATION** 

A.A. Bakersfield Junior College, California

Columbia Junior College, California Humbolt University, California

PROFESSIONAL CERTIFICATIONS & LICENSES Personnel Management Course – 1982 Prescribed Fire Manager Certification - 1981 Law Enforcement III Certification – 1981

Incident Commander II Certification - 1980 Fuel Management Certification - 1979 New Mexico Foresters License - iss. 1979

Certified Scaler, 1974 – 1976 N.E.P.A. Certification – 1974 Bid and Sale Certification – 1974 CA Forester Certification – 1974

Silvicultural Certification – Small Sales - 1974 CA Professional Forester Certification – 1974 Independent Board of Forester Certificate - 1974

Pesticide Seminar – 1971 Watershed Seminar – 1970 Fire Management Seminar – 1970 Sale Administrator Course – 1969 Timber Appraisal Course - 1969

Employment History

2000 – Present

The Forest Guild, Santa Fe, New Mexico

Senior Forester; Coordinator, Community Forestry Program

Negotiate, administer and manage timber sales, forestry and riparian projects on private lands. Fire planning. Consult with rural communities on grants and training, manage youth program.

1976 - 1996

U.S. Forest Service, Santa Fe National Forest, Espanola & Tesuque Ranger Districts Fire and Timber Management Staff; Special Emphasis Officer for Santa Fe National Forest Managed all aspects of fire management, small timber sales, silviculture project, urban interface coordination.

1974 - 1976

U.S. Forest Service, Mi Wok Ranger District, Stanislaus National Forest

Small Sales Officer

Managed all small sales from layout and appraisal to sale and administration and administered larger timber sales on the district. Administered special sales for the national forest.

1965 - 1974

U.S. Forest Service, Los Padres National Forest, Mt. Pinos Ranger District

Timber, Fire & Recreation Staff

Assisted in managing Forest timber, pest management, reforestation project, thinning, pinion-

juniper eradication. Assisted on construction timber treatments and maintenance of

recreational sites. Assisted on fire management and fuels projects.

**OTHER** 

Member, Society of Professional Foresters

Board member, National Network of Forest Practitioners

# Northern N.M. Group CFRP-Rowe Mesa Committee for Education and Outreach

### **Relevant Experience**

Norma McCallan Nationally certified Sierra Club Outings leader Co-Chair, Northern N.M. Group Chair, Conservation Committee

I have conducted and coordinated approximately one outing per month in northern New Mexico from 1976 to the present. Each outing gets from 2-20 participants with an average of 120-150 hikers and outdoor enthusiasts participating annually. In the 1990's, I worked with the first Director of the Santa Fe Watershed Association, Paige Grant, leading tours to areas within the Santa Fe National Forest scheduled to be thinned and managed for wildlife risk. In the past several years, I have collaborated extensively with various coalitions of agency and NGOs working jointly to educate the public about wildlife risk and restoration, forest thinning and forest product projects in the SFNF and Canillon area. As chair of the Conservation Committee, I have researched and submitted comments on Resource Management Plans and forest Travel Management Plans for the Santa Fe National Forest, Kiowa Grasslands, Carson National Forest and Manzano Mountains of Cibolla National Forest. I currently serve on the Citizen's Advisory Board for the State Land Office at the appointment of Director, Ray Powell.

#### **Teresa Seamster**

Co-Chair, Northern N.M. Group

Wildlife Chair

I have worked as coordinator for various Northern NM Group seminar series (Climate Change Series, 2011), as well as coordinator for three county and area-wide wildlife conservation workshops: 2010 Santa Fe County Focal Species Workshop, 2010 Santa Fe County GIS Workshop (follow-up habitat mapping of focal species), 2010 Multi-County Conservation Workshop). I currently work on native grass restoration with the Parks Division of Santa Fe, Mayor Coss and other community groups, and Gunnison's Prairie Dog reintroduction in Santa Fe County with Commonweal Conservancy and the City of Santa Fe.

#### Tom Gorman

Vice-Chair, Northern N.M. Group

**Public Lands** 

Former N.M. State Director of Emergency Preparedness

Cerro Grande Fire FEMA Coordinator for New Mexico

2011 - Presenter on "Wildlife Preparedness" Los Vaqueros Landowner Association

Bill Armstrong is the Forest Fuels Specialist and Program Manager for the Santa Fe National Forest. He has been a forester for thirty five years, twenty of those with the Forest Service. Bill is a certified silviculturist, a graduate of Technical Fire Management and has been involved in fire and fuels management for his entire Forest Service career. Most recently he has been involved in the Santa Fe Watershed Restoration Project and the Jemez Landscape Assessment. He was instrumental in the collaborative fuel reduction and forest restoration efforts with Los Alamos County and the Valles Caldera National Preserve.

#### **BIO SKETCH for Jan-Willem Jansens**

Jan-Willem Jansens is a landscape planner and owner/principal of Ecotone, in Santa Fe, New Mexico. Professionally, Jan-Willem seeks to balance the needs of communities, landowners, and land managers with society's need to strengthen the integrity of Earth's ecosystems. He strives to do this in ways that guide people to be effective land stewards and keep nature and our communities productive and healthy. Jan-Willem holds a Master of Agricultural Science degree from the Wageningen University in The Netherlands with a specialization in Landscape Architecture. In his studies and professional life, he combines his training in landscape design according to the approaches developed by Ian McHarg with rural landscape planning methodologies of Dr. Ingrid Duchhart, along with agro-forestry and forest ecology, soil & water conservation, and watershed planning. After a research internship in Kenya, and after establishing a program for International Landscape Planning with Dr. Duchhart at the Wageningen University, he worked as a project administrator at an international earth sciences university (ITC) and as a Technical Assistant in Forestry and Rural Development in Niger. In 1993, Jan-Willem moved to Santa Fe, New Mexico, where he worked as a Rural Development Specialist with Forest Trust, established his own consulting practice under the name Common Ground, and served for ten years as Executive Director of Earth Works Institute. In 2012, Jan-Willem established a new private consulting practice under the name Ecotone that focuses on conservation planning for landscapes in transition. His current initiatives include a wetlands action plan for Santa Fe County, forest and watershed restoration, wildlife conservation planning, and trail design and maintenance projects in various locations throughout northern New Mexico.

February 14, 2013

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Sean Medrano – owner of NorthEastern Construction, Las Vegas, NM

Sean Medrano has led multiple mastication projects as part of forest restoration efforts in northern New Mexico in recent years; including work on Rowe Mesa as the lead proponent of CFRP grant 33-09. The projects include: 550 acres of mastication and hand thinning in Rowe mesa; 330 acres of mastication and spraying in the Pubelo of San Idfonso; 60 acres of hand thinning in Pendaries, 100 acres of mulching in the pecan farms in Las Cruces, and several small acre tracts (5-10 acres) around northern NM.

# PEDRO I. CHAVEZ

# Caro's General Works

11 Calle Chiripada Espanola, New Mexico 87532 505-490-3690

#### **EXPERIENCE**

2007-current New Mexico Forestry Division Santa Fe NM Crew Supervisor

- Certified Firefighter
- Certified B-Faller (chainsaw maintenance and safety)
- Class A, B, and C-Faller Supervisor, Instructor, and Forestry Skills Trainer

2008–2012 Chimayo Conservation Corps Chimayo, NM Program Coordinator

- Forestry Crew Coordinator and Supervisor
- FSWC Certified, Forest Workers Safety Certification/Recertification Class Team Trainer/Instructor
- First Aid/CPR certified and Certified Instructor
- Forest Landscape Monitoring and Evalution inclusive of: Pre/Post Common Stand Exams, Photo Points, Wildlife Habitat, and Vegetation
- Acquired 2,000 hours+ training as Class C-Faller
- Field Trainer/Instructor for class A, B, and C-Fallers

2012-Current Caro's General Works Espanola, NM Owner

- Forest Treatment Contractor, Landscape and Tree Removal Services
- Environmental Conservation: Erosion Control and Land Conservation
- Contractor for two CFRP Forest Thinning Projects. Completed 140 acres of forest treatment within three forest landscapes.
  - o 80 acres Francisco CFRP completed and inspected by Henry Lopez Forester
  - O 34 acres San Ildefonso Pueblo Bosque completed and inspected by Stephen Martinez pueblo manager
  - 25 acres Borrego Mesa completed and inspected by Daniel Mondragon Forester
  - 0 100 acres currently being treated at Mesa De Las Viejas SLO inspection by Mark Myers.

#### **EDUCATION**

2006-2007

Eastern New Mexico University-Roswell

A.A. Liberal Arts Degree - Honors Graduate

#### OTHER

- Proficient in Microsoft Word, Access, Excel, and Powerpoint
- Vocational and Supervisor/Leadership Trainer, fluent in Spanish

# Appendix C Letters of Commitment

Note: The approved University of Arizona Proposal Routing Sheet is included as a letter of commitment to indicate budget approval, which includes an in-kind, non-federal commitment from the UofA of \$84,527.55 ("cost-share or matching").

Supervisor's Office 11 Forest Lane Santa Fe, NM 87508 (505) 438-5300

File Code: 5150

**Date:** February 19, 2013

Ellis Margolis Laboratory of Tree Ring Research University of Arizona 105 West Stadium Tucson, AZ 85721

Dear Mr. Margolis:

The Santa Fe National Forest (Forest) supports and is committed to collaborate with you on your proposed 2013 CFRP project "Strategic Implementation in a Large Ponderosa Pine/Piñon-Juniper Landscape". Forest Fuels Specialist Bill Armstrong has been involved since the inception of the landscape-scale planning phase of this project (CFRP 34-10), which is a major step in the direction the Forest is taking in large scale landscape restoration projects. The scaling up in size of landscape-restoration is essential to the success of the Forests efforts at restoration of fire adapted ecosystems.

Bill will assist in the implementation of the mechanical treatments through site visits that will be used to evaluate prescriptions and advise on locations of thinning vs. mastication treatments. As Forest Fuels Specialist and Program Manager he will encourage future project implementation funding. For example, Rowe Mesa is currently on a priority list for landscape-scale prescribed fire through a joint effort between the USFS and the NM Game and Fish Department.

Your track record and your ability to work with the Forest Service were exhibited through your involvement in the Santa Fe Watershed forest restoration projects. I look forward to the long-term success of this project and the opportunity to participate.

Sincerely,

/s/ Maria T. Garcia
MARIA T. GARCIA
Forest Supervisor





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# Proposal Routing Sheet (PRS) Office of the Senior Vice President for Research

Deadline Date	02/20/13
Log Number	
ccount Number	

		w-		
PRINCIPAL INVESTIGATOR (Last name, first name)	ŬA PHONE#	E-MAIL ADDRESS		
Margolis, Ellis	626 2733	ellisqm@ltrr.arlzona.edu		
ADMINISTERING DEPT NAME	ADMINISTERING DEPT#	ADMINISTERING FAX#		
Tree-Ring Lab	1204	621 8229 E-MAIL ADDRESS		
DEPARTMENTAL CONTACT	UA PHONE #			
Ana Martinez 621-6469 martinez@ltrr.arizona.edu				
TITLE OF PROPOSAL Strategic Implementation	n in a Large Ponderosa Píne/Piñ	on-Juniper Landscape		
SPONSOR (Funding Agency) US Forest Sei				
PROG. ANN. # / WEB LINK http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/s		sal be submitted electronically? 🗌 Yes 🗵 No etem:		
TOTAL AMOUNT REQUESTED: \$ 3.59, 494.  (Direct Costs + F&A Costs)	PROPOSED START DATE:	1/1/2014 PROPOSED END DATE: 12/31/2016 (mm/dd/yy)		
PROPOSAL TYPE: New	AC	CTIVITY TYPE: Research		
F&A RATE % 11.11 F&A BASE	титос 🕅 тос 🗆 отн	HER		
	F&A to SPS. See http://www.eps.erizone.ed	u/proposal/Dead  nePol cles,htm for deadline information.		
is attached no		alver Approval		
Stipulation attached or web link pr		(VPR/SPS Approval)		
PROJECT LOCATION (Select one):	n Campus 🔲 Off Campus (Facilities	not owned/under central lease by UA, Including UMC and UP/ Clinics)		
Where will the project be conduc	ted? Bldg 45B Room 32	Other		
Will additional enace requirements of space for	ovation be required?	☐ Yes ⊠ No		
If yes, please route the Space Request Form throt Will this project generate program Income?	ign your College.	☐ Yes   No		
Will there be fabrication of equipment on this p	rojecl?	☐ Yes ☒ No		
Cost Sharing or Matching Funds? Yes X No If	YES, a budget IS required.	PROPOSAL REMARKS/COMMENTS (non cost-sharing):		
Source Account(s) & Amount(s):				
DOES THE PROPOSED WORK INCLUDE ANY	OF THE FOLLOWING?			
Yes III No 🗵 Vertebrate Animal Subjects	Yes 🗌 No 🗵 Native Person	s Affairs(signature required)		
Yes No 🔀 Invertebrate Animal Subjects†	V 🗆 u 🖾			
Yes No X Cancer Related Research Yes No X Collaboration w/Foreign Nation(s)	Yes No 🗵 Cancer Cente	r Facilities (algnature required)		
Yes No M Collaboration w/Foreign Nation(s) If Yes, list nation(s):	Yes No X rdNA/Microbia	al Pathogens <sup>†</sup> (stonature reculred)		
Yes No Hazardous Chemicals†	— Yes □ No ⊠ VA/SAVAHCS	Employees? (NIH ONLY)		
Yes No Human Subjects†	Evnort Control Compliance (OFA	C license may be required or prohibited based on answers)		
Yes 🔲 No 🗵 Radiallon <sup>†</sup>	Yes No X TBD Foreign national project personnel (including UA personnel)?			
Yes ☐ No ☒ Bloodborne Pathogene <sup>†</sup> Yes ☐ No ☒ RCR Training Required?				
For Sponsored Projects Services Use Only	Yes No X Travel to fore If Yes, fist nation(s):	lgn nallon(s)?**		
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Sponsor Reference #: UAR PD Doc #:	Yes No Will any equi	pment (including laptops and/or smartphones), or software be taken outside the U.S.?		
UAR Submitted Date:	Yes No X Will you be w	orking on a U.S. military base abroad?		
UAR IP#:	A Ma project acity/ht offersor	I wilhout approval of protocol and/or registration and training		
Rev 05/2012 †† If collaboration with, or travel to, foreign nation(s) marked "Yes", you must like				

#### **CERTIFICATION/APPROVALS**

By signing this Proposet Routing Sheef, the Principal Investigator, Co-investigators, Department Heads, and Deans certify that:

- 1. The information presented on the Proposal Routing Sheet and in the application is true, complete, and accurate to the best of your knowledge. Any false, fictitious, or fraudulent statements or claims may subject to use applicable to administrative penalties.

  2. This project is in conformance with the University of Arizona Conflict of Interest policy, and all appropriate project personnel have submitted a Report of

- This project is in conformance with the University of Arizona Conflict of Interest policy, and all appropriate project personnel have submitted a Report of Outside Interests Related to Research (ROI) to the COI Office.
   The principal investigator, co-Investigators, or anyone Involved in the appropriate activity is not presently debarred, proposed for debarment, suspended, declared ineligible, or voluntarily excluded from transactions by the federal department or agency.
   If awarded, the principal investigator and co-investigators agree to accept responsibility for the fiscal and scientific conduct of the project and provide required progress reports in accordance with Federal law, state law, aponsor regulations, terms of the award, and University policy.
   The principal investigator agrees to maintain a copy of the complete, original proposal, which may be accessed by the Vica Pragident for Research.
   F&A Revenue Distribution will be calculated by the method listed in the "F&A Allocation Box." Changes to the calculation method will require a fully-signed, original texteed Brancat Reviews.
- orlginal revised Proposal Routing Sheet,

F&A Allocation Box: Revenue Distribution Calculation Method:	۳٦
PRS distribution (% distribution listed on the PRS will be used to calculate all F&A Allocation associated with the award) if you select PRS % distribution, F&A % distribution should add to 100%. If the column is left blank, 100% will be credited to the lead Pt.	
Account distribution (% distribution fisted on the PRS will not be used to calculate F&A Allocation) If you select account distribution, the F&A distribution % will be finto only. The quarterly F&A Allocation will be based on actual account activity/distribution.	
F&A Revenue is distributed to colleges based on the scale at: http://www.sps.arizona.edu/forms/	_

#### Principal Investigator Summary

	•	-	-				
	(Lest Name, First Name) Use the Tab key to move to the next	Have you submitted the	%	Distribution of Credit for Award		Distribution of F&A Revenue (See Above)	
UA NetID	PJ Name	appropriate reports to the COI Office?	Effort	Award Dept#	% Awd Credit	F&A Dept#	% F&A Distrib
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If Award Credit and/or F&A Cost columns are left blank, the PI and department listed on the first line will be credited at 100%.

		APPROVALS	•		
Pl Name	Pl Signature	Dept Head Signeture	Dean Signature		
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Sponsored Projects S	ervices Approval:	ray Secrow	Date; 2/20/13		

Additional signature pages will only be accepted when the number of investigators exceeds the signature space on this page. Each single signature page must include signatures for all investigators, Department Heads, and Colleges.



Northern New Mexico Group Rio Grande Chapter of Sierra Club

February 15, 2013

Ellis Margolis, PhD University of Arizona Tucson, A.Z.

Dear Dr. Margolis.

The Northern New Mexico Group of the Rio Grande Chapter of the Sierra Club is pleased to collaborate with you on CFRP Project: Strategic Implementation in a Large Ponderosa Pine/Piñon-Juniper Landscape. The Northern Group has participated in several regional forest coalition improvement programs and strongly supports this wildfire risk reduction, forest health restoration and local jobs building project in our area.

We know the importance of healthy forests and watershed protection in this time of drought, increasing extreme weather events and higher average temperatures in New Mexico. It is vitally important to thin the small diameter trees, promote low intensity fire and a habitat mosaic more resilient to future changes.

We are willing to commit to the following in-kind contributions:

- 1. Organization and participation in 2 education/outreach field trips at the Rowe Mesa restoration sites and other recently thinned and burned sites (\$20/hr X 80 hrs = \$800)
- 2. Organization and marketing of a forest restoration community education and outreach talk/seminar event (\$20/hr X 30 hrs = \$600)
- 3. Coordination with the University of Arizona (Ellis Margolis) to write a forest restoration article for the statewide newsletter SIERRAN (\$20/hr X 10 hrs = \$200)

Total in-kind contribution = \$2,400

We will be reimbursed for the following costs:

1. Travel to the field trip site (\$0.445/mile X 75 mile roundtrip X 2 trips)

2. Community meeting space reservation fee and materials printing for event announcement (\$500)

### Total reimbursable cost = \$566.75

We are strongly supportive of this proposal as one that will be beneficial in reducing our county's wildfire risk, restoring forest health, promoting local jobs and improving wildlife habitat in an environmentally sensitive manner.

Thank you.

Sincerely yours,

Teresa Seamster

Co-Chair

Norma McCallan Conservation Chair

Tom Gorman Public Lands

Northern N.M. Group Rio Grande Chapter of Sierra Club 1807 2<sup>nd</sup> Street, Suite 45 Santa Fe, N.M. 87505 (505) 983-2703 tc-seamster@q.com



February 10, 2013

Ellis Margolis University of Arizona Laboratory of Tree-Ring Research Tucson, AZ 85721

RE: Letter of Commitment for the Collaborative Forest Restoration (CFRP) Proposal, "Strategic implementation in a large pinon/juniper-ponderosa pine landscape."

Dear Ellis,

This letter is to express my commitment to your CFRP project "Strategic implementation in a large piñon/juniper-ponderosa pine landscape." The Forest Guild has a long history of restoration on Rowe Mesa, both the CFRP (Valle Grande I and II and Barbero I projects) and with over 12 years of our Pecos/Las Vegas Youth Conservation Corps (YCC) crews. Through these avenues, we have contributed to monitoring, on-the-ground treatment, prescription development, NEPA-compliance, non-native plant control, watershed restoration, and outreach and education.

We have been involved in the development of this proposal and can commit to the following

• Orlando Romero, Forest Guild Senior Forester, will coordinate with the project lead (Ellis Margolis) and the USFS to supervise the on-the-ground implementation activities (\$58.17/hr X 328 hrs over 3 yrs) for \$19,080.

Additionally, we are able to commit to the following *in-kind contributions*:

• Six days of the Forest Guild's Pecos/Las Vegas YCC crew for monitoring training and ecological monitoring pre- and post-treatments. The total contributed value of the YCC crew is \$2,946, based on a daily cost of \$491 that includes salaries and FICA/MED costs.

I expect the CFRP Technical Advisory Panel to recognize the importance of continued restoration investment in this landscape, at a competitive cost, which contains part of the headwaters of the regionally important Galisteo watershed which feeds into the Rio Grande at Santo Domingo Pueblo.

Sincerely,

Orlando Romero

Calcula Romerto

Senior Forester



925 Mills Ave. Las Vegas, NM 87701 505.454.8143 Office 505.454.1272 Fax

Ellis Margolis University of Arizona Laboratory of Tree-Ring Research Tucson, AZ 85701

February 19, 2013

Dear Ellis,

This letter is to express my commitment to your CFRP project "Strategic implementation in a large piñon/juniper-ponderosa pine landscape." I commit to masticating 125 acres at a cost of \$275/acre. Consisting of light to medium encroachment in areas where small diameter tress will be masticated without leaving heavy over burden. Hand thinning will be conducted by others in areas where medium to heavy encroachment is present to sustain controlled fire.

Mr. Margolis and NEC will be sharing monitoring data that has been obtained through CFRP's conducted on mesa. With Mr. Margolis, NEC and the USFS we can use our collective efforts and data on Rowe mesa, which are leading toward a large landscape-scale restoration.

Sincerely,

Sean Medrano

### **Ecotone**

Conservation Planning for Landscapes in Transition

1413 Second Street, Suite 5 Santa Fe, New Mexico 87505 505-470-2531 jwjansens@gmail.com

Ellis Margolis University of Arizona Laboratory of Tree-Ring Research Tucson, AZ 85721

February 14, 2013

Dear Ellis,

It is my pleasure with this letter to express my commitment to your CFRP project "Strategic implementation in a large piñon/juniper-ponderosa pine landscape." I commit to the following *tasks* related to the socio-economic monitoring for this proposed project:

Conducting the socio-economic project monitoring:

- Identifying specific socio-economic benefits of project through scenario evaluation;
   (1) after catastrophic fire, (2) no action, and (3) after project implementation
- Identifying monetary and non-monetary values of benefits; quantifying the benefits and values;
- Identifying indicators of socio-economic success of project (to be used as a baseline for socio-economic monitoring)
- Conducting interviews (kitchen-table meeting style and phone calls) to collect baseline data
- Writing baseline benefit profiles (forest functions and products) for each scenario
- Describing specific benefit findings-to-action reports (for specific forest products and forest benefits)
- Compiling the end-of-project monitoring report
- Participating in annual multi-party monitoring meetings (yrs 1-3)

I value the collaboration this project will establish with ongoing private land restoration and wildlife habitat improvement initiatives on Glorieta Mesa and downstream in the Galisteo Basin and other watersheds. Meanwhile our collaboration will help contribute to an increased reach of this proposed CFRP project across a larger landscape. I have appreciated being part of the development of the proposal and am excited about the prospect of working with the project team on the implementation of this valuable project.

Sincerely.

Jan-Willem Jansens

•					
	,				

CARO's General Works 11 Calle Chiripada Espanola, NM 87532

February 10, 2013

Ellis Margolis University of Arizona Laboratory of Tree-Ring Research Tucson, AZ 85721

RE: Collaborative Forest Restoration Program (CFRP) Proposal, "Strategic Implementation in a Large Piñon/Juniper-Ponderosa Pine Landscape."

Dear Ellis,

This letter is to express my commitment to your CFRP project "Strategic implementation in a large piñon/juniper-ponderosa pine landscape." Caro's General Works have thinned hundreds of acres successfully across several jurisdictions since our founding in 2008 as part of a Forest Guild CFRP. We have a track record of successful restoration with the BLM, Carson, State Land Office, and on private lands.

We commit to the following task:

• Forest thinning on 550 acres over 3 years at a cost of \$300/acre to meet the prescription and desired future conditions described in the grant proposal.

We look forward to working closely with the University of Arizona, the Forest Service and the Forest Guild as part of this collaborative forest restoration effort in a landscape that is important to the local communities and the greater watershed.

Sincerely,

Pedro Chavez

Owner

#### Appendix D Letter to tribes and pueblos

A letter was sent to all the tribes and pueblos potentially affected by our proposal on Rowe Mesa. The tribes and pueblos include: Pueblo of Cochiti, Pueblo of Jemez, Jicarilla Apache Tribe, Pueblo of Nambe, Navajo Nation, Pueblo of Picuris, Pueblo of Pojoaque, Pueblo of San Felipe, Pueblo of San Ildefonso, Pueblo of San Juan, Pueblo of Sandia, Pueblo of Santa Ana, Pueblo of Santa Clara, Pueblo of Santo Domingo, Pueblo of Taos, Pueblo of Tesuque, Pueblo of Zia, and Pueblo of Zuni. The included example is the letter sent to the Pueblo of Jemez.



Laboratory of Tree-Ring Research College of Science University of Arizona P.O. Box 210058 Tucson, Arizona 85721-0058 (520) 621-1608

FAX: (520) 621-8229 http:// http://www.ltrr.arizona.edu/

January 13, 2013

Governor Pueblo of Jemez P.O. Box 100 Jemez Pueblo, NM 87024

#### Dear Governor:

We, The University of Arizona together with its partners, are applying for a federal grant under the Collaborative Forest Restoration Program (CFRP), administered by the Regional Office of the U.S. Forest Service, Southwestern Region. The proposed project is a three-year restoration project (thin and burn), which would treat 700 acres within a 2,000 acre area that will be burned. A copy of our grant proposal is attached. The CFRP Technical Advisory Panel has recommended that grant applicants contact tribes who may have an interest in the project based upon traditional rights or uses in the proposed project area. The CFRP is designed to encourage entities with interests in a particular forest area to collaborate in designing and implementing restoration projects in those areas. The purpose of this letter is to provide interested tribes with an opportunity to comment on or participate in projects receiving CFRP grants. Your tribe has been identified as potentially having aboriginal rights to or concerns with the proposed project area.

The CFRP Technical Advisory Panel will be reviewing the enclosed grant proposal and could recommend it for funding under the CFRP. The Secretary of Agriculture will make the final project funding decision. We welcome your assistance and involvement in the design and implementation of this project. Please review the enclosed proposal and contact me at (520) 626-2733 or University of Arizona Tree-Ring Lab, 1215 E. Lowell Street, Box 210045, Tucson, AZ 85721 within three weeks of receipt of this letter if you wish to comment on the proposal. If we do not receive any communication from you within this time frame we will continue to plan and implement the project as described in the application.

Please let me know if you have any questions. If you would like to contact the Forest Service please call Reuben Montes (505) 438-5356. Thank you for your time and consideration in review of this proposal.

Sincerely,

Ellis Margolis / (520) 626-2733

ellisqm@ltrr.arizona.edu

# Appendix E NEPA Decision Document





# DECISION MEMO FOR THE SOUTHERN ROWE MESA RESTORATION PROJECT

# U.S. FOREST SERVICE PECOS/LAS VEGAS RANGER DISTRICT SANTA FE NATIONAL FOREST SAN MIGUEL COUNTY, NEW MEXICO

#### **DECISION**

I have decided to approve the Southern Rowe Mesa Collaboration and Restoration Project, located on 17,500 acres in the south-central part of Rowe Mesa (see map). The purpose of this project is to promote a mosaic of healthy forest stands and natural grasslands on approximately 17,500 acres on Rowe Mesa on the Pecos/Las Vegas Ranger District of the Santa Fe National Forest, San Miguel County Township (T) 14N, Range (R) 12E, portions of sections 1-12, 15-17, 20-34, 26-29, and 31-26, T12N, R13E, portions of sections 1-3, 10-15, and 24; T12N, R14E, portions of sections 5-8, and 17-20.

This action is within FSH 1909.15, 31.2, category 6 (Timber stand and/or wildlife habitat improvement activities that do not include the use of herbicides or do not require more than 1 mile of low standard road construction. 36 CFR 220.6(e)(6)), and is categorically excluded from documentation in an environmental assessment or environmental impact statement. Selected stands of piñon pine, juniper and ponderosa pine trees have encroached into the understory of woodlands and into meadows. These stands would be reduced by thinning to achieve the objective of improving wildlife habitat. A reduced density of trees will allow the understory cover of grass and forbs to increase for wildlife forage and habitat. Large trees and snags will be retained as nesting habitat for birds and other species. Increased grass cover will also restore soil and hydrologic conditions, improving habitat for soil dwelling wildlife.

Thinning will be followed by prescribed burning, which will also benefit the grass and forb species promote the growth the growth of early successional vegetation, and encourage recovery of shrub species such as Gambel oak, which provide forage and cover for deer and other wildlife. The proposed action does not include the use of herbicides or pesticides or the construction of new roads or permanent infrastructure, and is consistent with departmental procedures and the Santa Fe National Forest Plan.

Phase one cultural resources report was completed and submitted to the New Mexico State Historic Preservation Office and meets the requirements of Appendix J of the Region3





Programmatic Agreement. This report specifies the requirements in the protocol and as such the Forest Supervisor can approve cultural resource clearance for the project once those requirements have been met. If the recommendations made in this report are followed the project will clearly state the initiation of work in any subsequent phase of this project will be contingent upon completion of the identification and protection of historic properties and compliance with acceptable provisions of National Historic Preservation Act (NHPA) in accordance with Appendix J. Based on these recommendations cultural resources clearance is recommended for Phase I of the Southern Rowe Mesa Restoration Clearance Project.

#### **Categorical Exclusion Compliance:**

I find that there are no extraordinary circumstances that would warrant further analysis and documentation in an EA or EIS. I took into account resource conditions identified in agency procedures that should be considered in determining whether extraordinary circumstances might exist:

The action will not cause adverse effects to any of the following extraordinary circumstances:

- Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species There are no threatened or endangered species, associated habitats, or critical habitats that occur within the project area.[PR#25]
- Flood plains, wetlands or municipal watersheds There are no floodplains, wetlands or municipal watersheds present in the project area. [PR#31]
- Congressionally designated areas such as wilderness, wilderness study areas, or national recreation areas – There are no congressionally designated areas in the project area. [PR#31]
- Inventoried roadless areas; research natural areas There are no inventoried roadless areas or research natural areas in the project area. [PR#31]
- American Indian and Alaska Native religious or cultural sites Tribal consultation letters regarding this project were sent to tribal governments and followup phone calls were made. No responses were received from the tribes. [PR#26 -27]
- Archaeological sites, historic properties or areas It was determined that No historic
  properties will be affected by these activities or they will have no adverse effect on
  cultural resource properties anticipated within the project area, provided that the standard
  site protection measures listed in Appendix D of the programmatic Agreement are
  applied. [PR#26-27].

#### PUBLIC INVOLVEMENT AND SCOPING

This action was originally listed in October 2012 in the Santa Fe National Forest Schedule of Proposed Actions and has been listed quarterly since and updated periodically during the analysis. The Southern Rowe Mesa Restoration Project scoping letter was sent to 100 individuals and organizations on April 19, 2012 (that 1. participated in the planning process or 2. requested





to be informed of planning processes related to all subjects, all recreation topics, dispersed recreation, or lands projects.) The 30-day comment period was combined with the scoping comment period and was the legal notice was published in the Albuquerque Journal, the newspaper of record on April 19, 2012.

Public outreach was also conducted through meetings held at: Pecos Municipal Building on January 26, 2012 @ 7:00 PM; Arroyo Hondo Fire Station on February 9, 2012 @ 7:00 PM and Rowe Fire Station on March 2, 2012 @ 4:30 PM. In addition, a field meeting on the Rowe Mesa project site was attended by 23 individuals, many of whom live or are concerned with management on Rowe Mesa.

Five responses (letters, emails, and phone calls) were received during the public comment period. The comments are presented here with a summary of the original comments followed by the Forest Service response. The original comment letters can be found in the project record.

#### 1. Nina Wells - New Mexico Environment Department, Phone call

**Comment:** Applaud you guys for the restoration work we're doing on S. Rowe Mesa. No arroyos mentioned, but if there are some treat them with special care. She also said she is going to send an email or fax something over to the office.

**Response**: Thank you for supporting the project. Arroyos will be analyzed as part of the watershed and soils and any BMPs will be applied if necessary.

#### Nina Wells - New Mexico Environment Department, Email

**Comment:** Enclosed you will find our comments to the "Southern Rowe Mesa Restoration Project," scoping letter review. The scoping letter states that approximately 17,500 acres on Rowe Mesa on the Pecos/Las Vegas Ranger District of the Santa Fe National Forest will treat the woodland component on the watershed to more easily withstand a wildfire and to benefit the ecosystem.

Response: Thank you for providing comments on the Southern Rowe Mesa Restoration Project.

Comment: This is also listed as a CFRP funded project with many diverse partners. This is an action item in the Upper Pecos Watershed Association's draft Watershed Based Plan. The NMED Surface Water Quality Bureau is aware of how the existing conditions could adversely affect surface water in the receiving streams were a wildfire to occur and the resultant damage caused by erosion. Please provide special care to springs/seeps that may be in the area and arroyos, so that further erosion or degradation does not occur, especially in road usage during wood harvesting events. Please keep a "spill kit" available for fuels or other materials that may be kept or stored on-site.

**Response**: Mitigation measures and BMPs will be part of the project implementation and effects to seeps/springs will be analyzed as part of the soil and watershed report. A spill kit is part of the implementation design and will be available if needed. It is good to know that NMED Surface Water Quality Bureau is aware of the potential effects and damage caused by erosion if a





wildfire were to occur.

#### 2. Roger S. Peterson, New Mexico Natural History Institute, Letter

Comment: Figure 1 (Before) shows better wildlife habitat than figure 2 (After), or at least some of the land should be left with young thickets. There's not much for deer in Figure 2: no cover, no shrubs to eat. A principal goal of forest and woodland improvement should be to promote shrubs, especially young oak, and to create a mosaic of thickets separated by relatively fireproof "park lands" as shown in Figure 2. Cattle and elk like the parklands, but the elk also need some dense cover.

**Response**: The project will be implemented in a mosaic pattern to leave enough understory cover for wildlife. The project area does not contain much of a shrub component and prescribed fire should help promote that component.

**Comment:** Elk and deer and piñon nuts are more valuable products of Rowe Mesa than are cattle, especially from the viewpoint of the owners (taxpayers), who lose money on cattle—your costs exceed \$1.35 per AUM. One or two good nut trees on an acre produce more economic value than does 1/50 of an AUM.

**Response**: Santa Fe National Forest provides forest system lands for multiple-use and grazing has been a use on the mesa for over 100 years. This project is not based on economic value.

**Comment:** So, thinning and prescribed burning are good where needed for fire protection and especially where junipers have invaded grassland. But they should be applied unevenly and in a way that protects shrubs and wildlife cover. The New Mexico Natural History Institute is a small group of scientists devoted to protection of New Mexico's biological communities.

**Response**: The proposed project would include treatment of acres where junipers have invaded grasslands in a mosaic pattern and fire protection is an added benefit for those residents on that live on Rowe Mesa. We will bear in mind your suggestions when we are developing the prescriptions for the site.

#### 3. Norman B. Nelson, New Mexico State Historic Preservation Officer, Letter

Comment: We look forward to project specific consultation with the restoration project.

**Response:** Thank you for your response and will submit our report for approval.

#### 4. Sandy Anderson, Email

**Comment:** Thanks for the opportunity to comment on this project. My main concern is that the prescribed burns be scheduled in a manner that the wildlife and residents up here on Rowe Mesa are able to tolerate the SMOKE and that we know where to check in to know when these burns are scheduled to happen.





**Response**: Prescribed burns are implemented when there is a window of opportunity, usually in the spring or the fall timeframe. An air quality permit is required from New Mexico Air Quality Bureau that coordinates other all prescribed burns with air quality standards in the state. Residents will be notified prior to prescribe burning in the area through letters, notices, phone calls, etc. Information is also made available through a news release and information can be found on our website.

#### 5. Ben Chavarria - Santa Clara Pueblo, Letter

Comment: The Santa Clara Pueblo is in favor and supports the proposed project Southern Rowe Mesa Restoration Project, we are aware that this project falls in locations important to various pueblos and Native American groups and is important to the Santa Clara Pueblo, recommend that any disturbance to Ancestral Puebloan sites, artifacts, remains, or culturally sensitive areas be made known to the Santa Clara Pueblo Office of Rights Protection immediately. We would also like a more detailed map of the project area and detailed information of the cultural clearance performed for the project. The contact person for this project is Mr. Ben Chavarria, Land and Cultural Resources, Santa Clara Pueblo Office of Rights Protection. Please contact him if you do have any questions or concerns he can be reached by phone at (505) 753-7326 ext. 1306 or Attn: Ben Chavarria, P.O.Box 580, Espanola, N.M. 87532.

**Response:** We are currently collaborating with Mr. Ben Chavarria and the Santa Clara Pueblo regarding this project and sensitive sites on Rowe Mesa. Any information requested by the pueblo requests will be provided.

#### FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

The project is located in Management Area G. It is consistent with both the general Forest Plan standards and guidelines and those specific to Management Area G. Emphasis in this area is on key wildlife habitat protection, habitat improvement, and forage and firewood production. Recreational opportunities are dispersed and consist of firewood and piñon nut gathering, hunting, and recreational driving.

#### **MITIGATION MEASURES**

#### WILDLIFE

- Conduct surveys, whenever possible, in locations where new treatments will be occurring to determine if species have recently occupied the area.
- Develop and implement management practices to ensure that species do not become threatened or endangered because of Forest Service actions.
- Maintain viable populations of all native and desired nonnative wildlife, fish and plant species in habitats distributed throughout their geographic range on National Forest System lands.





- Develop and implement management objectives for populations and/or habitat of sensitive species.
- The project will adhere to the Migratory Bird Treaty Act Executive Order that requires Federal agencies to incorporate migratory bird conservation measures into their agency activities.

#### HERITAGE RESOURCES

- All cultural resource sites will be avoided by thinning using mechanized heavy equipment, forest product collection (personal and commercial), and lop and scatter burning. Areas in the vicinity of sites may also be closed to lop and scatter burning, and personal use forest product collection if these activities could cause incidental damage to the sites. All areas in the vicinity of in-use historic structures or facilities or in close proximity to sites with flammables will be closed to lop and scatter burning personal use forest product collection, and moss rock collection. Thinned materials in the vicinity of these sites will be removed through commercial forest product collection and the mechanical chipping/mastication of slash.
- Thinning and hand tools will be permitted in all cultural resources sites, provided that trees are directionally felled away from standing or other sensitive features, and that all thinned material is removed from the boundary of the site. Thinned material may be retained on larger sites with discontinuous distributions of features and artifacts (such as large historic sites) if it can be used in soil retention or other erosion prevention measures and if the material is located away from all features and artifacts where its intentional or accidental ignition and burning could damage or destroy such features and artifacts.
- Broadcast burning will be permitted within sites which contain no combustible surface remains or other remains which could be damaged by forest, and which contain only light fuels. All other sites will be avoided by broadcast burning. All in-use historic buildings will be avoided by prescribed burning. Typically, sites which may be burned over include Native American artifact scatters, historic artifact scatters, and non-combustible simple features, both Native Americans prehistoric and historic and non-Native American historic. Prior to any burning, all sites with a burned area will be evaluated on a site-by-site basis. Those sites which cannot be burned over without an adverse effect, either due to the condition of the site remains, the specifications of the burn prescription, or the fuel loading at the site, will be avoided so that the burn may be conducted with either no effect or no adverse effect to cultural resource sites.
- Cultural resource sites which are features that are part of an in-use road or trail, such as culverts, bridges, and retaining walls, will be maintained or reconstructed in a manner consistent with their historic integrity during road reconstruction, maintenance and closure and trail reconstruction activities. All other cultural resource sites will be avoided by road reconstruction, maintenance and closure, and trail reconstruction activities.

## Administrative Review (Appeal) Opportunities

This decision is subject to appeal. A written appeal, including attachments, must be postmarked or received within 45 days after the date this notice is published in the *Albuquerque Journal*.





The appeal shall be sent to the Santa Fe National Forest, ATTN: Appeals Deciding Officer, 11 Forest Lane, Santa Fe, NM 87508. Appeals may be faxed to (505) 438-5390. Hand-delivered appeals must be received within normal business hours of 8:00 a.m. to 4:30 p.m. Appeals may also be mailed electronically in a common digital format to appeals-southwesternsantafe@fs.fed.us. Only those individuals or organizations who submitted comments or otherwise expressed an interest during the notice and comment period may appeal. Appeals must meet content requirements of 36 CFR 215.14.

#### IMPLEMENTATION DATE

If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 business days following the date of appeal disposition. (36 CFR 215.9)

#### CONTACT

For further information on the technical aspects of this project, please contact Michael Luján, 1926 N. 7<sup>th</sup> Street, NM 87701, (505) 425-3534.

Enther Welson, Acting District Ranger 21 February 2013
Date

District Ranger **Enclosures** 

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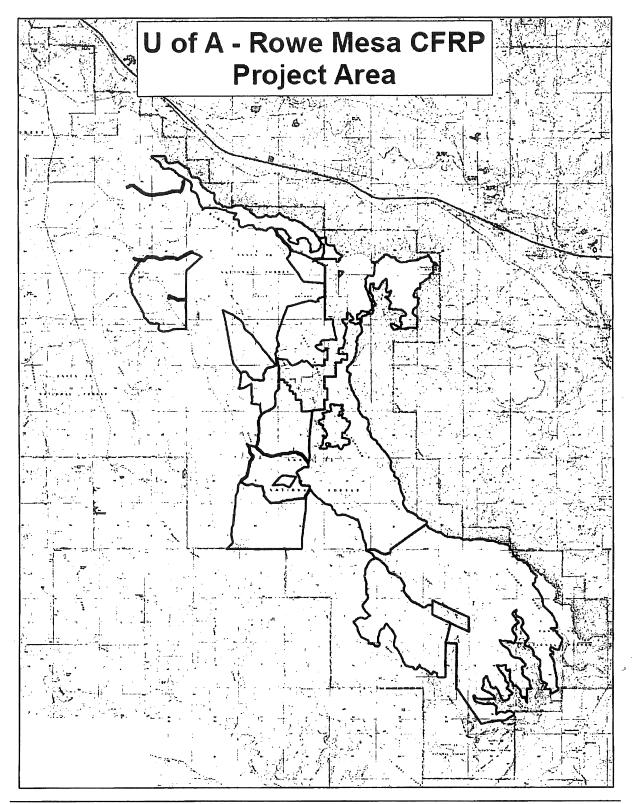


Figure 1. Southern Rowe Mesa Restoration Project Area Map