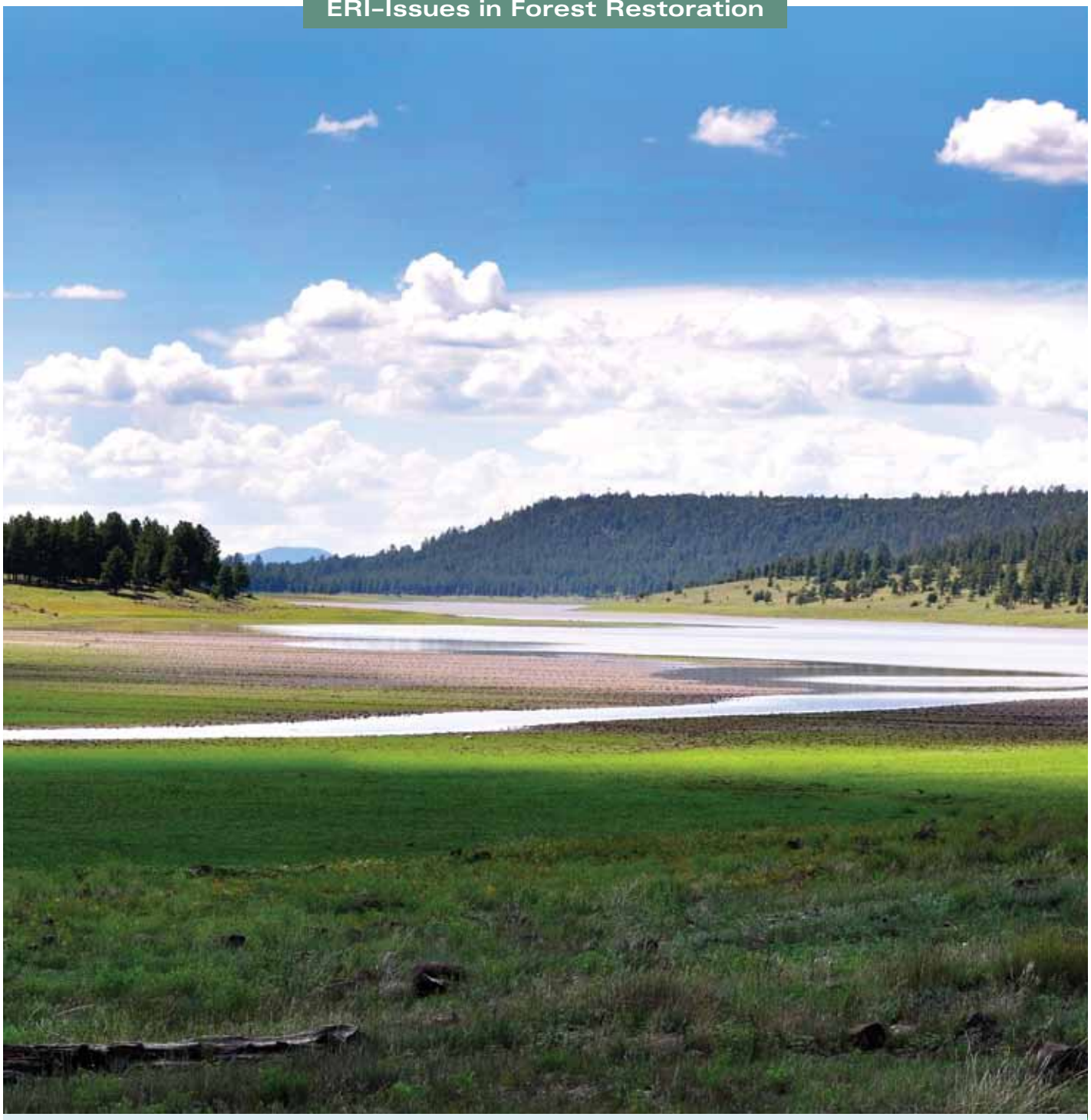
ERI–Issues in Forest Restoration



Flagstaff Watershed Protection Project:

Creating Solutions through Community Partnerships

NORTHERN ARIZONA UNIVERSITY
Ecological Restoration Institute

The Ecological Restoration Institute

The Ecological Restoration Institute at Northern Arizona University is a pioneer in researching, implementing, and monitoring ecological restoration of dry, frequent-fire forests in the Intermountain West. These forests have been significantly altered during the last century, with decreased ecological and recreational values, near-elimination of natural low-intensity fire regimes, and greatly increased risk of large-scale fires. The ERI is working with public agencies and other partners to restore these forests to a more ecologically healthy condition and trajectory—in the process helping to significantly reduce the threat of catastrophic wildfire and its effects on human, animal, and plant communities.

Cover photo:

The southernmost end of Upper Lake Mary. The forests that surround the Lake Mary–Mormon Mountain watershed (as well as the Rio de Flag watershed) will receive thinning treatments under the Flagstaff Watershed Protection Project to prevent catastrophic wildfire and the post-fire flooding events that would negatively impact the City of Flagstaff and its water supply. *Photo by Brady Smith, USDA Forest Service, Coconino National Forest*

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Publication date: September 2015

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Series Editor: Tayloe Dubay

Please use the following citation when referring to this paper:
Mottek Lucas, A. 2015. Flagstaff Watershed Protection Project: Creating Solutions through Community Partnerships. ERI White Paper—Issues in Forest Restoration. Flagstaff, AZ: Ecological Restoration Institute, Northern Arizona University. 28 p.

This report was funded by a grant from the USDA Forest Service.

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Introduction

In the past two decades, communities in fire-prone forests across the West have faced increased danger of catastrophic wildfires. These wildfires have been steadily growing in size and intensity, partly due to the amount of fuel built up from a century of fire suppression and also driven by rising temperatures and drought. These intense wildfires have burned homes and infrastructure as well as critical natural resources such as watersheds and wildlife habitat. However, hazardous fuel reduction projects — especially on steep slopes adjacent to communities — can be difficult and costly.

Cities and towns throughout the West have been grappling with innovative ways to fund forest restoration and protect their water supplies and reduce flooding impacts. An example of one such effort is the Flagstaff Watershed Protection Project, known as FWPP, in Flagstaff, Arizona. The FWPP emerged from proactive civic leadership that recognized the need to overcome funding limitations and implement hazardous fuel reduction treatments in critical, at-risk watersheds. Several factors contributed to its success, among them the fear of another extreme fire event in the mountains north of town.

The purpose of this white paper is to convey to other communities, municipalities, and/or government agencies the administrative functions and mechanisms used by the two primary partners, the City of Flagstaff (City) and the U.S. Forest Service (also referred to as USFS, the forest, the Coconino National Forest, and the National Forest), to develop and implement FWPP. The paper is designed as a case study for other entities considering a similar initiative. This case study spans the first two years of the project (see Figure 1, page 4), from the bond election in November

The 2010 Schultz Fire burned 15,000 acres of untreated forest north of Flagstaff, Arizona. The cost to fight the fire and mitigate the subsequent flooding was estimated between $133 and $147 million (Combrink et al. 2013). ***Photo by Brady Smith, USDA Forest Service, Coconino National Forest***

Residents living below the Schultz Fire burn area experienced extreme flooding after monsoon rain events in months following the fire. Results of an analysis by the Ecological Restoration Institute indicated that the fire directly and indirectly contributed to a loss of approximately $60 million in the personal wealth of local property owners (Combrink et al. 2013). ***Photo by Deborah Lee Sotlesz, U.S. Forest Service***

2012 to December 2014. Personal interviews were conducted with key personnel from the City and the USFS. This report summarizes findings from the interviews and information derived from review of City and USFS internal project documents.

The value of this case study is two-fold. First, it is an historical account of what led to the successful passage and start-up of the FWPP. Second, it serves as a guide to the steps (Appendix A) and the mechanisms used to develop and implement a successful private/public/agency partnership. These findings can be used as a foundation to develop a similar initiative designed to achieve community protection through forest management.

A Solid Foundation

In the summer of 2010, the Flagstaff community experienced near misses and direct hits from wildfires all in a few days (Arizona Daily Sun 2010). The Hardy Fire, which burned toward evacuated neighborhoods, was contained because it intersected treated areas and dropped to the ground, allowing emergency responders to contain the wildfire. The Schultz Fire, igniting just one day after the Hardy Fire, did not have the same outcome. The Schultz Fire ignited on the east side of the San Francisco Peaks, a mountain range just north of Flagstaff, and spread throughout an untreated area, resulting in a 15,000-acre high-severity wildfire. This fire torched the majority of trees and severely burned the soil, causing it to become hydrophobic, or water repelling. The subsequent impacts from the post-fire flooding that occurred in the fire's aftermath were devastating. Though no homes burned in the fire, multiple extreme

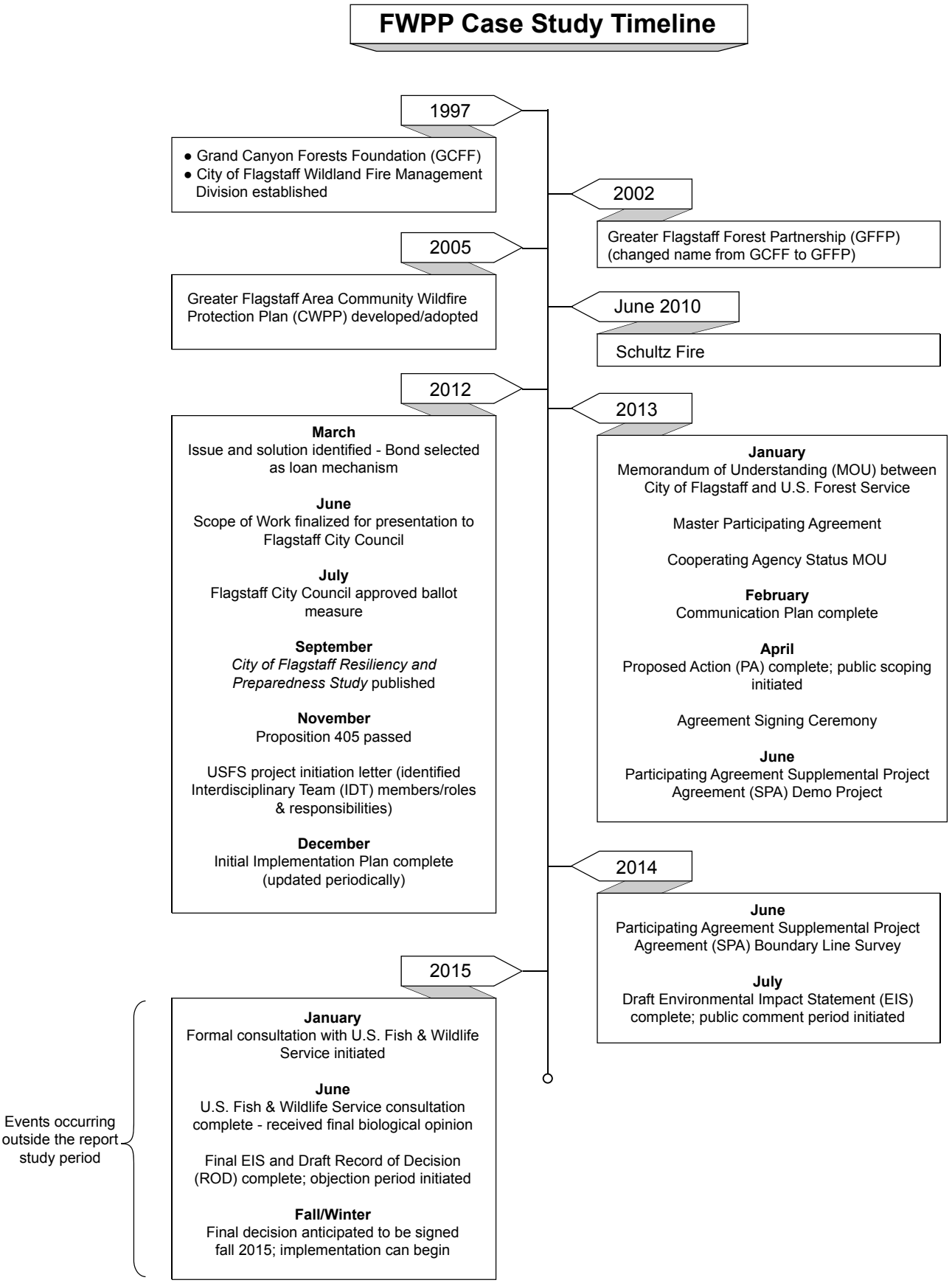


FIGURE 1. Timeline showing key events and decisions for the Flagstaff Watershed Protection Project detailed in this report.

Challenges partners faced included difficulty in treating steep, rocky slopes like the Dry lake Hills (left/above) and the presence of threatened species habitat like the Mexican spotted owl (right).

post-fire flooding events damaged downstream rural neighborhoods, aquifers, critical city and county-owned infrastructure, and tragically resulted in the loss of a life.

Two years later, in the November 2012 general election, Flagstaff city voters overwhelmingly approved (73.6 percent passing in all 26 precincts) a $10 million bond to fund the FWPP. The project was designed to reduce the risk of severe wildfire and subsequent post-fire flooding in the Rio de Flag (Dry Lake Hills) and protect the surface water supply in the Walnut Creek-Upper Lake Mary (Mormon Mountain) watersheds. The majority of the project lies on federal land (10,544 acres) and much smaller portions are on city (3,000 acres) and state (2,000 acres) land. A small inholding that is owned by the Navajo Nation (140 acres) lies in the center of the Dry Lake Hills project area. The two primary partners of the FWPP are the City and the USFS. The City has funding authority and approves expenditures for the project and the USFS authorizes decisions affecting National Forest System land. Implementation of the project — including the environmental planning process, tree thinning, and initial entry prescribed burning — is expected to span 10 years, ending in 2022.

At least 19 years of dedicated collaborative work set the stage for voter approval of the bond. This included productive relationships established between the Flagstaff Fire Department's Wildland Fire Management program, the USFS Coconino National Forest, the Ecological Restoration Institute (ERI) and School of Forestry at Northern Arizona University (NAU), and the Greater Flagstaff Forests Partnership (GFFP), a local collaborative group comprised of a variety of stakeholders. These organizations had long been working together on forest restoration and hazardous fuel

Box 1. Conceptualizing a Community Based Initiative

Key partners had:

- a mutual understanding of clearly defined issues and solutions;
- a unified multi-party approach;
- high levels of commitment (local, regional, and national) and partners were well aligned;
- a willingness to prioritize the project within their organizations; and
- long-standing and well-established relationships.

Partners identified:

- the level of interest, knowledge, and support that community members, decision-makers, and political leaders had for the project;
- the level of up-front work and resources that were needed in outreach, education, and relationship building;
- leaders who were willing to take risks and champion the project; and
- the level of capacity and resources available to address the solution.

Box 2. Questions Considered by the FWPP Project Partners

- Are the issues and solutions clearly defined?
- Is there interest and buy-in from relevant parties/the community?
- Is the community knowledgeable/supportive of the need/project?
- What is the level of commitment of the parties involved?
- What is the community and agency's capacity/availability of a workforce and financial resources? How can we increase this capacity?
- What qualities and skills will leaders need to succeed? How do we identify them?
- Do we have key leaders who are willing to take risks and champion the initiative?
- How much and what type of groundwork (up-front work) is needed (e.g. public opinion surveys, educating public/politicians, social and political license, etc.)?
- How do we build on and maintain social license created by catastrophic events (e.g. Schultz Fire and floods) and the broad support demonstrated by the passage of the bond?
- Does the community/partners have a unified multi-agency approach? Do the agencies/organizations involved have similar operating frameworks, missions/goals, opportunities needs, challenges?
- What affect do recent catastrophes (e.g., crown replacing wildfires) have?
- Who are the other collaborators that could/should be involved? Who are the players that will support the program and assure its success? How do we identify them?
- Which groups/individuals might present themselves as opponents of the project? Can we work with these individuals/groups so they become proponents or are neutralized?

reduction treatments, which includes thinning trees and prescribed burns, in and around the community. Other significant efforts included adoption of the "*Greater Flagstaff Area Community Wildfire Protection Plan*" (2005, revised in 2012) and the *Wildland-Urban Interface Code* (2008). These organizations also provided robust public outreach efforts that resulted in wide acceptance and demand for forest treatments. The public understood the need and witnessed the benefits the treatments provided in reducing fire risk and improving forest health (Welch 2012, Malis-Clark 2012, Smith 2012).

Forest health issues had been a concern for ecologists as well as city and forest officials since the mid-1990s, but state and federal funding for restoration on public land was limited. Exacerbating this problem was the 2008 economic downturn. In response to this, the City determined it would become more sustainable, resilient, and self-reliant.

In 2009, then Flagstaff City Manager Kevin Burke formed a Sustainable Communities Cabinet tasked to identify sustainability issues and solutions. In September 2012, shortly before the FWPP bond election, the City completed the "City of Flagstaff Resiliency and Preparedness Study" (City of Flagstaff 2012b). The focus of the study was to address the question: "How can we reduce our vulnerability to and build local resilience against risk from climate variability and weather related impacts?" Both the cabinet and the study identified potential climate impact effects on forest health and uncharacteristic wildfire as a priority focus area for the City's new vision for the future.

With forest health and community protection identified as a top priority for city officials, the City, the USFS, and other partners recognized areas of high fire risk on National Forest System land that could potentially affect critical watersheds. However, these areas were exorbitantly expensive and difficult to treat due to their location on steep, rocky slopes (slopes greater than 40 percent grade); presence of threatened species (Mexican spotted owl) habitat; and lack of timber value. Removing the timber was not financially feasible for the agency because its value was much lower than the cost of its removal. Moreover, these sites are not typically a federal priority because they require a lengthy environmental review process and have the potential to pose legal challenges. The City, the USFS, and other partners understood these challenges and worked together to address them with innovative funding strategies.

Clarifying the Problem and the Solution

The FWPP evolved organically. Potential project partners already were aligned and understood the unhealthy forest conditions and the threat it posed to Flagstaff. Leaders also recognized the solution — to conduct forest treatments in areas that would reduce fire risk and protect critical watersheds. Years of building community support gave leaders the confidence needed to move forward. City of Flagstaff Wildland Fire Management Officer and FWPP Project Manager Paul Summerfelt summed up the synergy by saying, "We were on a roll. We didn't have the upfront work [to do]; it was already done."

In looking back during FWPP's initiation, it is clear the municipality, the National Forest, the community, and other entities had a clear problem and sense of the solution (Boxes 1 and 2) (Mindock 2013).

A Community Bond: FWPP Funding Mechanism and Source

Several months prior to the November election, in March 2012, a meeting was convened in Flagstaff with City officials and relevant departments, area ecologists and hydrologists, and non-governmental organizations (NGOs) to discuss the area's fire and flood risk, the affected watersheds, the concept of payment for watershed services, and the potential to address and fund the problem. The City of Santa Fe's utilities department presented on how Santa Fe

Promotional materials like this postcard were designed and distributed by the project's political committee to advocate and campaign for a "Yes" vote on Question 405.

addressed a similar situation with a collaboratively developed payment for watershed services program. This workshop provided the inspiration for using a local revenue source to accelerate forest treatments on federal land.

One month later in April, a multi-party steering committee was formed to evaluate the scope and feasibility of a proposal to fund watershed restoration. The committee's participants were similar to those at the initiation meeting in March, with the addition of leadership from the National Forest and Coconino County officials and county department leads.

This group was tasked to construct a scope of work that included:

1) Identification, role, and benefit to local and downstream water users;
2) Cooperation between partners (Memorandum of Understanding (MOU), roles and responsibilities, financial obligations/leverage funds);
3) Projected timeline;
4) Project location/boundaries, acres;
5) Estimated costs; and
6) Refining costs: Initial treatments (pay for with bond funding) versus future treatment maintenance — primarily implementing prescribed fires (potentially applying a water utility user fee).

In the absence of available general funds, then Flagstaff City Manager Kevin Burke suggested a bond based on a secondary property tax as the funding source. The City determined it had $10 million in bonding capacity within the existing secondary property tax rate. Burke decided to advance the idea of authorizing bonds, which would proportionally maintain the current property tax levels (this rate is assessed on current property value). The steering committee determined that the scope of work seemed reasonable for the $10 million bond spread over 20 years. The bond amount was estimated to cover the cost of the initial treatments; however, the steering committee noted that

treatment maintenance would likely need another funding source, such as a water utility fee or a storm drainage utility fee, and that would be revisited in the future.

Bond versus Utility User Fee or Sales Tax

Burke chose a bond as the funding mechanism over alternative funding sources, such as a water utility user fee, storm drainage fee, or sales tax, because of the distinct advantage of gaining voter approval and associated support for action. City of Flagstaff Management Services Director Barbara Goodrich explained that if approved, the levy is assessed across the entire community; therefore, the community has a vested interest in the outcome and the associated benefits of the project. Alternatively, using other funding sources, such as a water utility fee, would not go before voters, but would need approval and adoption by City Council. Burke explained that if a utility fee had been imposed, in the absence of a public opinion study, citizens' support or opposition for the fee would not be fully understood. A clear advantage of a bond election is that it eliminates uncertainty about public opinion. The bond also provided the benefit of having funds available up front; whereas, with a user fee or sales tax, there may be lag time in accumulation of the necessary funds before actions can be taken.

Bond Funding Mechanics

The bond authority allows the City to access any increment within the $10 million bond amount. Although interest is earned on the bond, this amount is less than the interest paid. In order to minimize the interest paid, the City estimated an issuance amount based on a program of work developed for the first two years. In addition to the interest paid, there are bond issuance costs. With this in mind, the City issued the FWPP bond in conjunction with other City authorized bonds to lessen and spread administrative costs across multiple projects. Expenditures are drawn from a project-specific, local investment City account. The expenditures are tracked through a ledger cost accounting process with an identifiable project account number and project numbers that further identify expenses by agency (USFS, state, City, etc.) and by type of work (planning, implementation, monitoring, etc.).

The Power of a Bond Election

For FWPP, the advantages of pursuing a bond in an election outweighed the disadvantages. An election empowered voters to determine their own tax future, and bond approval would demonstrate voter support for action. For the bond question to appear on the ballot, Flagstaff City Council needed to approve the scope of work planned by the steering committee. The scope of work also provided the details and platform needed to run a campaign (before the election, the City informed the public about the project (City of Flagstaff 2012a, 2012c, 2012d) and a separate political committee advocated and campaigned for votes). Disadvantages of a ballot measure included the cost (approximately $150,000) and human resources required to run the campaign. There was also the possibility that the initiative would be defeated at the polls and an alternative funding source may not have emerged.

In the end, almost three quarters (73.6 percent) of the voters supported the bond. According to Summerfelt, the overwhelming number of votes in favor of the bond provided the City and the USFS the "social capital" and credibility to move forward. He said, "[Voter approval] provides a big social license and it provides political cover … it's the will of the voters." Voter approval also sent a message to those opposed to forest treatments or taxes. The overwhelming public support likely influenced individuals/groups that are generally opposed to such projects.

The election also elevated the awareness of forest health issues and provided an educational opportunity to clearly outline the problem (fire and floods) and the solution (forest treatments) (City of Flagstaff 2012a, 2012c, 2012d). Regardless of land jurisdiction, voters understood the initiative focused on addressing public safety issues and protecting values at risk (e.g. personal property, water supply, infrastructure, scenic beauty, etc.). In addition, Burke explained, rural tourism-based economies in Arizona have proved vulnerable in the aftermath of intense wildfires, and this measure assists in reducing potential negative economic impacts to the community. Although the bulk of

Box 3. First Two Years of USFS Leveraged Funds Included:

- Environmental planning – Support from all levels of the agency (local, regional and Washington offices)
- Treatments (e.g. hand thinning/prescribed fire)
- Archaeology surveys
- Rocky Mountain Bird Observatory monitoring contract
- Mexican spotted owl surveys and inventories
- Schultz Pass Road/Mt. Elden Lookout Road resurfacing
- Planning/oversight of boundary line surveys
- Other wildlife surveys (northern goshawk)
- Noxious weed surveys and treatment
- Surveys, stand inventories, and implementation support

Total $1,671,580* (Total does not include volunteer hours or contributions from the supervisor's office and regional office staff)

*Total USFS leverage funds is for the period covered by this study (Jan. 2013 – Dec. 2014).

the project would occur outside of the City's boundary, for these reasons, city residents were willing to financially back the project (Smith 2012, Arizona Daily Sun 2012).

The tremendous voter approval also demanded a higher level of accountability — a need to demonstrate success to voters. This required budget and process transparency, which Summerfelt said, "held both agencies' [City/USFS] feet to the fire." Moreover, the election results raised the project's profile and generated regional and national interest from the USFS, the Arizona state legislature, and Congress. It is rare for a municipality and national forest to forge such a unique relationship. The heightened profile of the project incentivized the team to meet voters' expectations.

Voter Expectations

An exit poll was conducted on Election Day at various polling stations by NAU researchers. The poll's findings showed the top three reasons (selected from a list of attributes) voters supported the initiative: 1) to reduce the risk of post-fire flooding (55 percent), 2) to protect the City's water resources (54 percent), and 3) to invest now in order to avoid future costs (36 percent) (Nielsen and Solop 2013). The exit poll also revealed that although voters generally did not understand the implications of the property tax rates — the majority of those polled believed their property taxes would increase — the bond still received strong support (*http://library.eri.nau.edu/gsdl/collect/erilibra/index/assoc/D2013011.dir/doc.pdf*).

Prior to and following the election, a variety of public meetings were held and central themes emerged that resulted in the development of the City's Monitoring Plan. The plan was designed to address the primary voter questions and concerns while, at the same time, provide the transparency and accountability the project demands.

FWPP Leveraged Funds

City of Flagstaff

No one anticipated the additional financial support FWPP would attract from local, state, and national agencies and organizations. Within the first two years, FWPP generated an additional $2 million, which translates to a 20 percent return on the original bond (see Appendix B for leverage reports tracked by the City for 2013 and 2014). The majority of the leveraged funds came from the USFS (Box 3). Although a small portion of on-the-ground work occurred in the first two years since the bond election, the project received substantial support in leveraged funds.

Based on a specific theme identified in the City's Monitoring Plan — "How was the money invested?" — the City decided to track cash and in-kind leveraged funds. To collect the information, the City requested that external partners report estimated contribution amounts biannually. For state and federal partners operating in a different fiscal year accounting period, the amounts are parsed out according to the calendar year. These leveraged funds do not include City in-kind work toward the project.

The final annual leverage report is distributed to all partners internally and to the Flagstaff City Council and the Coconino County Board of Supervisors who can share the results with elected officials on state and national levels. On the public side, the total leveraged amount is shared in FWPP Biannual Reports posted on the project's website, in project updates, during public meetings, and by word of mouth. Although reporting a full cost breakdown to citizens has not seemed necessary thus far, the City can easily generate and provide a report if requested.

U.S. Forest Service

The tremendous support demonstrated by the leadership of the Coconino National Forest and its line officers was instrumental to the successful implementation of FWPP. When the bond first passed, the USFS thought that bond funding would cover costs for on-the-ground implementation and the environmental planning process. However, because FWPP embodies many agency interests — such as providing community protection and a prominent ecosystem service (watershed protection and enhancement) — the project received unexpected financial support from the regional and Washington office levels (Box 3). From the USFS perspective, investing in the planning, initial forest treatments, surveys, and other costs allowed for more bond funds to be available for implementation.

After the Bond Passed: Project Planning

Decision Space

Through multiple meetings and close communication between the partners, the City and the USFS developed a clear understanding of each party's roles and decision space. As FWPP rolled out, it was understood that the City would make the fiscal decisions regarding use of bond funds and the USFS held the authority for the environmental planning process and management decisions on the National Forest. The two partners also decided they would jointly conduct meetings with the public and address any issues as a unified front.

Communication Plan

A Communication Plan was one of the first documents collaboratively developed by the City and USFS (Appendix C). The plan outlined a communication strategy that included stated communication goals, coordination between partners, project contacts, audiences, key messages and themes, a communication action plan, delivery methods and communication products, and product/action details. The plan functioned as an internal education tool to assist each organization to understand the complexities and requirements of each entity as well as to outline how they would interact with one

The FWPP logo was designed during the election campaign and is used in communication products to brand the project.

another and with the public. The messages in the plan also assisted those less familiar with forest health issues to convey accurate information, minimized communication missteps, and offered ways of presenting the project as a united front.

A critical component of the plan was to construct a project-specific website (*www.flagstaffwatershedprotection.org*). The site's name mirrored the project name and was easy to remember. The site was user-friendly because it was housed outside of larger, more complex agency/municipality sites. The communication team, comprised of both partners and multiple stakeholders, collaboratively manages the website. Since neither party hosts the website, the format and content are less constrained by each entity's requirements. To further promote a stand-alone project identity, a FWPP logo (designed during the election) and joint-partnership letterhead were produced to brand the project.

Implementation Plan

Concurrent with the Communication Plan, the USFS, along with input from the City, developed an internal Implementation Plan. This plan was instrumental in informing and providing assurances to internal (USFS) and external audiences less involved with the project's initiation. The plan included: 1) messaging about project intent, and 2) information on the various components of the project, including the overlap between the FWPP planning area and areas already included in previous project boundaries. More specifically, the Implementation Plan documented the project's background, objectives, tasks, estimated treatment costs, and an estimated treatment implementation timeline (Appendix D). Additionally, the plan outlined considerations for treating areas in already approved National Environmental Policy Act (NEPA) decisions, analyzing areas not yet NEPA approved, and re-analyzing areas where all treatment options were not previously considered.

This plan was neither a standard nor a required agency document and, like the Communication Plan, it preceded other formal USFS planning documents. Ultimately, the plan provided initial guidance, assisted the local forest with understanding the complexities of the project, and most importantly, it was used as an internal communication tool within the

agency. This gave the regional and national offices assurances that the project was thoroughly considered and initial planning stages were underway. This plan was followed by the first required agency document, the Proposed Action (PA) (April 2013).

Environmental Compliance Planning (National Environmental Policy Act)

Soon after the bond's passage, the USFS and the City discussed which environmental analysis tool was most appropriate. Based on these discussions, the USFS decided to use an Environmental Impact Statement (EIS) over an Environmental Assessment (EA) as the environmental analysis tool for the proposed treatment area. An EA is adequate only if findings and conclusions demonstrate no significant impact, while an EIS discloses and explains significant impacts within the proposed analysis. Further considerations influencing the decision included the novelty of the project and potential issues that may be presented by Mexican spotted owl (MSO) habitat impacts, steep slope operations, and treatments occurring in mixed conifer forest types. These factors contribute to a greater risk of project litigation, and an EIS, while taking somewhat longer to complete than an EA, provides a level of analysis better positioned to resist legal challenges.

As a risk management measure, the USFS simplified the Purpose and Need of the EIS exclusively to address voters' expectations of crown fire risk reduction and post-fire flooding rather than stating a specific purpose of forest restoration. The simplified Purpose and Need streamlined the NEPA planning process and helped communicate the necessity of the project to the public and internal audiences.

To encourage broad public input, the USFS did not select a preferred alternative in the EIS, nor did they attempt to create a preferred alternative from the agency's standpoint. Rather, the USFS acknowledged that public input on such a novel approach would be crucial in developing an informed decision that would blend the alternatives to best meet the Purpose and Need. According to Flagstaff District Ranger Mike Elson, this was a "crucial, wise choice." Erin Phelps, USFS project manager, explained that in the absence of a preferred alternative, the comments the USFS received on the Draft EIS were "richer, constructive and candid." If the USFS had identified a preferred alternative, Phelps believes comments would have narrowly focused on the negative aspects of the selected preferred alternative and the other alternatives would have been overlooked. The USFS encouraged public participation in the environmental review process and received 530 separate comments from 107 individuals/groups on the Draft EIS.

Public input on this Draft EIS was crucial because citizens voted for it and many would be personally affected, whether forest treatments occurred near their homes or in their favorite recreational areas. The USFS knew there would be tradeoffs for each proposed treatment and the agency did not want to weigh those without public input. The agency also analyzed the comments to determine what ecosystem services best represent the community. Phelps explained that developing the Final EIS with this collaborative spirit builds and solidifies trust within the community.

Prior to the bond's passage, the USFS took action to expedite the environmental analysis and demonstrate efficiency. For example, fire crews were redirected to collect data in mixed conifer stands for the environmental analysis. As soon as the bond passed, a Project Initiation Letter (PIL) was ready for a signature (Appendix E). The PIL is a standard USFS document that lays out expectations and responsibilities associated with the National Forest Management Act (NFMA) and the NEPA analysis. The FWPP PIL appointed a dedicated FWPP Interdisciplinary Team (IDT) and identified their roles and responsibilities. Collectively, these steps decreased the amount of time usually necessary to prepare for the environmental analysis and begin work on the ground.

Box 4. Steps the Coconino National Forest and the City of Flagstaff followed to initiate FWPP

1. Project proposal developed.
2. Forest supervisor approves.
3. Agreement initiation with an agreement template.
4. Agreement negotiation resulting in several iterations to customize the agreement to the project.
5. Internal review (local national forest).
6. External review (regional and/or Washington offices).
7. Local national forest finalizes the agreement.
8. External final approval and sign off.
9. Forest supervisor final sign off approving the entire project/process/finances/roles and responsibilities, etc.

FWPP Cooperating Agreements

U.S. Forest Service Administrative Process

Coconino National Forest: Entering into Agreements
When the USFS assessed the FWPP, it was clear this type of project would fall under an agreement. Agreements are used when a project provides a strong partnership, trusting relationships, mutual benefit, and a shared mission with stated goals.

The process begins when an organization or agency proposes a project to the USFS. The project's specifications are shared with the Grants and Agreements Specialist who decides which authority — there often can be several — and agreement instrument provides the most utility (for more information on the federal statutory authorities, see Appendix F).

Entering into agreements with the USFS varies from forest to forest (Box 4). The Grants and Agreements Specialist acts as an administrative guide throughout the life of the project. The Grants and Agreements Specialist is responsible for initiating the agreement documents, providing administrative oversight, and closing out the project.

City of Flagstaff and U.S. Forest Service Partner Agreements
For FWPP, three types of instruments are in place: two Memorandums of Understanding (MOU), a Master Participating Agreement, and Supplemental Project Agreements (see Appendix G for specific FWPP agreements).

1) **Memorandums of Understanding**
   MOUs do not commit anything of value to or from any party; the primary purpose of a MOU is to establish the relationship, roles, and responsibilities of the involved entities. The MOU formalizes the process and demonstrates a level of social commitment between the partners and may provide some leverage when seeking funding through grants and other sources.

   The first FWPP MOU simply describes the relationship and the roles and responsibilities between the City and USFS. Subsequent agreements between the City and USFS may or may not reflect the intent of this MOU.

Cooperating Agency Status MOU
Establishing cooperating agency status with partners is less standardized across the agency and the project's needs influence the degree to which it is formalized within each forest. Depending on the region and the project, the forest has the option of using a MOU or a formal letter.

For the FWPP, the USFS used a second MOU to grant Cooperating Agency Status to the City. This identified the City as a member of the IDT. The City was included as a member of the IDT because of their expertise and ability to provide input to the USFS on the environmental planning documents (PA and Draft EIS). Although the City cannot make decisions that affect National Forest System land, they can provide input as recommendations; the USFS has the final authority to adopt them or not. Furthermore, without the cooperating status, the City would have had limited information only available to them in a public meeting setting. Flagstaff District Ranger Elson said the inclusion of the City on the IDT was "instrumental" in bridging the decision-making authority and strengthening lines of communication between partners. According to Elson, including the City in the planning process further solidified trust and transparency with funding decisions.

2) Master Participating Agreement
A Master Participating Agreement is a detailed agreement that describes cooperative implementation of approved projects to meet mutual goals. The agreement includes standardized clauses, performance requirements, and the mechanics of how partners work together over the life of the project. This agreement has no monetary provisions attached; therefore, it is the overarching agreement that lays the foundation for implementation and monetary transfers.

Specifically, the Master Participating Agreement constructed for FWPP delineates that the project use City and USFS resources, and the City will reimburse either partner's expenses through bond funds. The Master Participating Agreement references the MOU, the Implementation Plan (referred to as the "5-Year Action Plan" in the Master Participating Agreement), and subsequent Annual Action Plans that will provide details of upcoming and expected work. The negotiated FWPP Master Participating Agreement balanced the responsibilities between the partners through "The City Shall" and the "U.S. Forest Service Shall" statements.

3) Supplemental Project Agreements
A Master Participating Agreement serves as an umbrella agreement and all of its contents and clauses are tiered to individual Supplemental Project Agreements (SPAs). The entire Master Participating Agreement is incorporated by reference into the SPA. Therefore, SPAs tend to be shorter agreements that focus on the details of the project/activity and associated costs, and may be less time consuming to negotiate.

As tasks or projects allowed under the terms of the Master Participating Agreement are required for FWPP, the Master Participating Agreement stipulates the initiation of a SPA. The SPA outlines specific tasks, identifies the parties participating in the specific project, authorizes specific entities to work on the national forest, projects the estimated costs, and if any funds are committed to the agreement, describes how funding will be handled. Every SPA must include a financial plan. Without a financial plan, no project-level agreement is complete (see link to financial planning forms in Appendix G, document 6).

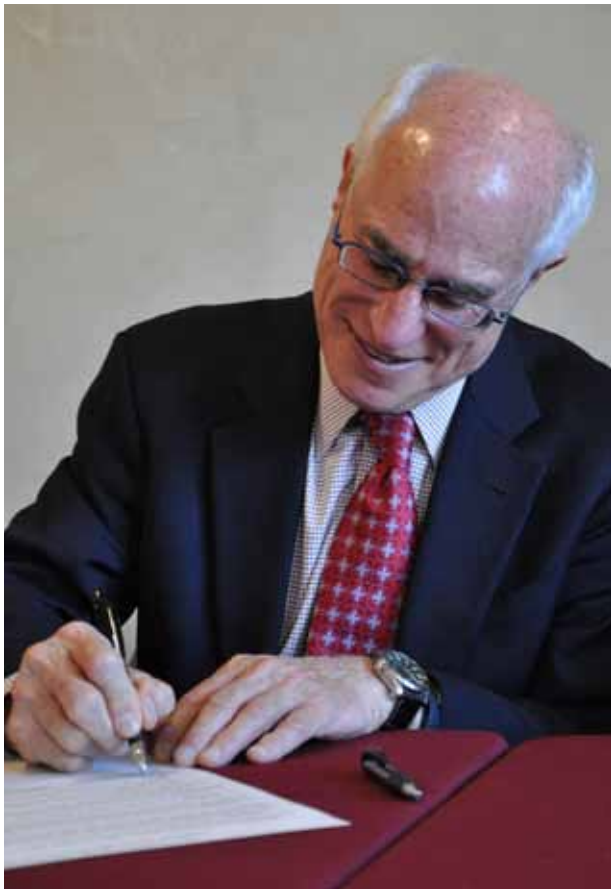
Because the City alone retains full authority of City bond money, the SPAs and expenditures associated with them must be approved by City Council. This requirement allows project leads to demonstrate measurable, defined progress to partners, City Council, and the general public.

City of Flagstaff Administrative Process

Once the USFS and the City agreed on issues and specific language, the agreements were reviewed by the City's legal team and then sent to City Council for approval. The signed and executed agreement was returned to the USFS for a final signature. Once the agreements were in place, the City determined how to best track and manage the project. Because a secondary property tax funded the project, the City developed a framework of checks and balances to ensure fiscal accountability to voters. The City also formed a multi-disciplinary City Bond Team to assist with managing and tracking the project. The team was comprised of internal staff from wildfire management, grants, management services, procurement, legal, accounting/finance, utilities, storm water, the City manager's office, and public affairs. Members from the team were assigned to oversee all project transactions and costs. According to City of Flagstaff Grants Manager Stacey Brechler-Knaggs, the City chose to track the project as if it were a federal grant, which assures all transactions are auditable. For instance, the team conducts multiple layers of review on all FWPP expenditures presented as purchase orders and invoices. The City uses a cost accounting and local procurement policy to process invoices. All invoices are accompanied by a narrative report that fully describes the work completed for the associated costs.

Signing Ceremony

When the agreements were finalized, the City and USFS organized a signing ceremony for the primary partner agencies and several other key cooperators (Cole 2013). Although some recognized organizations did not have a financial commitment to the project, they were acknowledged for their contributions and support. Notably, U.S. Department of Agriculture Under Secretary for Environment and Natural Resources Harris Sherman attended the ceremony, which showed government support at the highest department levels. The signing ceremony was a public celebration and project kick-off, creating renewed momentum and excitement. The ceremony was a public relations opportunity that increased the project's visibility and strengthened the agency-public partnership.



Representatives from city, county, state, and federal agencies — including U.S. Department of Agriculture Under Secretary for Environment and Natural Resources Harris Sherman (above) — as well as several other supportive organizations, gathered to sign a proclamation supporting and celebrating FWPP efforts.

Partner Roles and Responsibilities

U.S. Forest Service

The political and social significance of FWPP led to immediate action and innovation at the USFS. Flagstaff District Ranger Mike Elson said, "This train is moving and you don't want to be the one that's going to hold it up." First, the external funding source led to prioritization of the project. Second, the forest created a project manager position to provide consistent and focused leadership, accountability, and oversight. The project manager is the nucleus of the project on the USFS side. As the project manager, Erin Phelps is available to immediately address planned and unplanned duties that may arise, ranging from public information to environmental

planning. Most important, the project manager cannot be diverted from FWPP duties. The position is "essential" in managing the project, Elson said.

Furthermore, the agency rarely establishes such a position at a district level for a project with a relatively small footprint (10,544 acres). This position was set up as a detail versus a term position and is renewed annually, with a term not to exceed four years. A detail position offers an employee a temporary promotion, while allowing them to return to their former position once the term has expired.

The selection of the IDT also contributed to the success of the project. Officials carefully selected IDT members based on personal and professional attributes. According to Phelps, the USFS project manager, the forest chose members who had the ability to "think outside of the box." Ideal candidates were deliberate, intentional, accountable, and capable of project ownership. Other redeeming qualities included enthusiasm, devotion, and an ability to meet timelines and make sacrifices.

City of Flagstaff

The City created several positions and work teams with similar roles and responsibilities to the USFS. The City established a project manager to mirror that position at the USFS. In addition, the City added a new position, a FWPP operations specialist, who is assigned to the project. The City formed an internal team consisting of experts ranging from legal to finance. The City also contracted with GFFP, a prominent and established community stakeholder group focused on forest health issues, to provide additional capacity. The contract tasked GFFP with: 1) public engagement, 2) project planning and implementation, 3) tribal relations, 4) financial leverage, and 5) monitoring.

Non-Governmental Organization's Role

GFFP is recognized for its accomplishments in improving forest health in northern Arizona. GFFP's mission and scope over the past 19 years is broadly based on forest health and restoration issues and contains components of the principles in the FWPP. This community-based organization was instrumental in gaining the community's support for the watershed protection concept. Due to the scope of the project, the City realized it could increase its capacity by bringing GFFP on board. The City developed a contract that included a scope of work amendment with GFFP. It includes FWPP tasks that are mutually developed in an annual work plan. This collaboration provided a larger community network that could not be achieved by the two government entities alone.

Through jointly held public meetings, the City, USFS, and GFFP are able to present a partnership that offers unanticipated advantages. Summerfelt, the City project manager, said the City and GFFP have the ability to "act" and "respond" to interest groups and residents' concerns, while the USFS is more limited. This in effect "balanced the scale," then City Manager Burke said, because outside entities (e.g., City, GFFP) can proactively respond and directly address misinformation or concerns brought forth by interest groups at public meetings and in various media (e.g., online blogs, social networks, and newspaper articles).

As the project progressed, public meetings and field visits were organized as needed to provide educational opportunities and respond to concerns from interest groups and community members. The USFS, City, and GFFP worked to identify a group's concerns upfront and encouraged them to actively participate in the process through meetings, open house events, field visits, or by submitting comments during the environmental analysis process. These organizations understood the importance of listening to and addressing these groups' concerns early in the process and engaging them as constructive participants.

This monitoring summit from January 2013 was one of many workshops that assisted in shaping the City's Monitoring Plan. More than 50 people representing a variety of community interests brainstormed which issues required monitoring, how to proceed, and who to engage in order to conduct the work required.

Work Teams

Executive Team

The Executive Team is comprised of key project managers and decision makers from four organizations: 1) USFS (Deputy Forest Supervisor, District Ranger, Project Manager), 2) City (Project Manager, City Manager), 3) Arizona State Forestry Division (District Forester), and 4) County (County Manager, Deputy County Manager). The City and USFS form the primary partnership, but because some implementation will occur on state land and affects county government (roads, watersheds, etc.) and county residents, these organizations also have a seat at the table. City Manager Burke explained that it is ideal to combine project managers who are tasked with completing the everyday work with decision makers who are less directly involved with the project. Members work together to identify roadblocks and can quickly determine the resources needed for timely solutions. The Executive Team meets monthly to provide overall project oversight, offer input on completing specific tasks, and identify potential issues and resolutions. The team cooperatively resolves issues and any tasks developed from these resolutions may be incorporated into a SPA. Depending on organizational directives of those at the table, the Executive Team determines which organization offers the most timely, cost effective procurement solution. A decision log records significant decisions and acts as an historical record for others to understand the decision-making process and associated accomplishments.

Coordination Team

The Coordination Team, chaired by City staff, is comprised of diverse personnel from the City, USFS, state, county, GFFP, and other interested stakeholders. Initially these meetings were conducted in person, with the goal of

keeping all parties informed of accomplishments and plans. But the meetings soon morphed into a monthly conference call. As the project progressed, there was less need for this group and the team disbanded within the first year. The team continues to share information, but through other communication channels.

Interdisciplinary Team (IDT)

The IDT is responsible for the NFMA and NEPA analysis that includes a "Need for Change" and an "Affected Environment/Environmental Consequences" report, which was used to develop the PA and subsequent EIS analysis. The IDT consists of 15 members representing different areas of expertise with designated roles/responsibilities. Consulting members (e.g., range, heritage support, tribal outreach, etc.) are used as-needed. In addition, the IDT included representatives from U.S. Department of Interior Fish and Wildlife Service (FWS) and Arizona Game and Fish Department. Inclusion and early coordination with the FWS assisted in addressing ongoing concerns for the MSO by the public and interest groups (e.g., Center for Biological Diversity and Sierra Club). Phelps, USFS project manager, explained that if the City and USFS had presented the MSO treatments without representatives from wildlife agencies, there may have been more pushback and distrust from interest groups.

The project manager oversees three main areas that include the: NEPA analysis team, implementation team (oversees project implementation and coordinates with an informally designated implementation team leader), and communication team. Elson explained that the project manager is essentially the "hub" for FWPP coordination, providing guidance and oversight of finances and agreements, public affairs, briefings, coordination with researchers, etc.

Communication Team

The Communication Team includes staff from the City (Wildland Fire Management staff member and Communications), the USFS (Public Information Officer (PIO)), the County (PIO), and GFFP (Board of Director's member). The team responds to communication needs as they arise. This includes planning and execution of internal documents (Communication Plan), managing website content, organizing public meetings and events, and developing media releases. For example, the team organized and participated in several public information events such as Earth Day, the Festival of Science, and the Home and Garden Show. In addition, the team assisted with presentations at regional conferences and open house events during the public scoping period for the PA and the comment period on the Draft EIS. The team also planned and participated in on-site field meetings with residents who were concerned about project activities occurring close to their homes and neighborhoods.

City's Monitoring Plan

Although the Draft EIS contains required monitoring components, the City, along with multiple stakeholders (including the USFS), collaboratively developed a separate monitoring plan. GFFP led the City's Monitoring Plan development. The plan was uniquely designed to focus on answering voters' questions, and was not tied to monitoring related to the NEPA analysis. Question development began at public meetings held soon after the election. In addition, a diverse group of stakeholders contributed to the plan through eight workshops conducted over the course of a year. During each workshop, organizations involved with other or potential monitoring projects were invited to present and discuss how these studies would help answer voter questions. In the end, the City constructed the Monitoring Plan to address four main areas: 1) fire behavior, 2) hydrologic responses to thinning, 3) socioeconomic effects of FWPP, and 4) other (primarily wildlife) issues (see: *www.flagstaffwatershedprotection.org*). The City plans to reconvene stakeholders to periodically to review the plan and provide updates to the monitoring projects.

Implementation Team

For the first two years, the Implementation Team consisted of select members from the Coconino National Forest IDT. To date, the team has: 1) coordinated locations and completed on-the-ground implementation (hand

thinning and prescribed burning) of NEPA-approved sites in the project area; 2) compiled treatment locations with their corresponding acreage on an interactive Google map (available on the FWPP website) for the public to track implementation progress; 3) completed archaeological, noxious weed, and wildlife treatments/surveys; and 4) coordinated road resurfacing and boundary line survey work. Thus far, the City's involvement with the team has been limited; however, once the Record of Decision (ROD) for the Final EIS is signed, the City will be fully engaged.

Unique Factors that Influence Success

Several unique factors contributed to the successful passage of the FWPP bond. These factors were instrumental in building public support.

The 2010 Schultz Fire. The experience and aftermath of the Schultz Fire in 2010 motivated city officials to actively seek opportunities for preventative action that would avoid another major fire and flood. The fire and flood also elevated public awareness and support for action. This fostered a sense of urgency and social license that might not have existed previously to conduct forest treatments on steep slopes. The Schultz Fire demonstrated what happens when a wildfire turns catastrophic, including its devastating post-fire flooding effects. However, other potentially dangerous fires in the area — such as the Hardy (2010) and Woody (2006) fires (Arizona Daily Sun 2014) — were contained with limited community impact, proving forest treatments (such as mechanical thinning and prescribed burning) work.

Science and innovation. Flagstaff and northern Arizona have been at the forefront of forest restoration science for decades. Researchers at Northern Arizona University's Ecological Restoration Institute, the School of Forestry, and other university departments have published hundreds of peer-reviewed articles testing the effectiveness of forest restoration treatments. The last 19 years of restoration and research demonstrate that science-based treatments in ponderosa pine forests are achieving restoration goals while simultaneously reducing the risk of unnatural wildfire to communities.

Early recognition and leadership in Flagstaff. The creation of a Community Wildfire Protection Plan (CWPP) in 2005 and passage of a Wildland Interface Code in 2008 demonstrated to the community the importance of lowering fire risk to Flagstaff. Summerfelt, FWPP project manager, said these early community efforts contributed to creating an informed public that clearly understood the issues and the solutions. Flagstaff City Manager Burke further described these unique qualities as "cultural items that were in place that made this [project] easier."

The ability of all levels of government and citizens to work together. Several months before the election, citizens and local NGOs formed a political committee. The committee was able to fund "get out and vote" efforts and campaign more assertively than the USFS and the City, which were limited to educating/informing the public about the initiative. Although the committee has since disbanded, most individuals who were involved continue to support the project. Without the continued backing from the public/private partnership, Burke explained, the government alone would not have achieved the level of support and the number of milestones it reached over the first two years.

As FWPP progressed, a multi-party approach presented opportunities for project efficiency. Tiers of governmental agencies (municipal, county, state, and federal) collaboratively planned project-specific tasks. In addition, a public/private partnership (GFFP) provides increased capacity and opportunities that the government sector alone cannot achieve.

A small community. Flagstaff is located in a regional center, which is large enough to have ample resources, and at the same time, small enough that intergovernmental and private relationships are more personal. Burke described it as "a tremendous synergy that is hard to replicate."

A National Forest willing to innovate. The Coconino National Forest acted fast to identify efficiencies and novel approaches to the NEPA process. The district also identified the project as its number one priority.

In order to reduce fire risk in the watershed, areas that are generally deferred from treatment required management. This new challenge demanded creative approaches, such as how to harvest trees on steep slopes and how to reduce fuels in mixed conifer forest types (a rare ecosystem on the Coconino National Forest) without risking ecosystem type conversions. In addition, the USFS worked closely with the FWS to minimize impacts to threatened MSO habitat while, at the same time, reduce fire hazard risk in these areas.

With respect to public involvement, the agency was challenged by analyzing the multitude of comments received on a Draft EIS without a preferred alternative. However, this approach provided new opportunities. According to Phelps, USFS project manager, the large number of substantive comments received on the Draft EIS allowed the agency to "custom fit" public input into the process.

Primary Measures of Success

During interviews for this paper, USFS and City staff were asked to evaluate the project's performance by identifying the primary measures of success for FWPP over the first two years. Their responses are summarized as follows:

- ***Expeditious completion of environmental planning.*** The time it took to complete a Draft EIS of the size and complexity of FWPP was relatively short — the actual time it took to initiate and complete the analysis was close to the projected timeline (less than 3 years actual versus 2 years projected — this projection was based on an initial estimate of completing an EA versus an EIS).
- ***Positive nature of public engagement***. Public engagement has been positive thus far; potential contentious issues were addressed and fears were alleviated during public meetings, field visits, open house events, and during the environmental review process.
- ***Successful collaboration between partners.*** In looking back over the first two years, there were no major obstacles to deter or slow the process between partners.
- ***Ability to leverage funds.*** Leveraged funds tracked by the City have significantly increased the project's funds. The ability to leverage 20 percent of the original funding in the first two years shows tremendous support for the project at high levels of government.
- ***Acres treated.*** Within the first two years, more than 1,000 acres of mostly non-federal lands (City and state) have been treated. This metric is the base line that will become increasingly important as the project progresses.
- ***Reduction of severe wildfire risk.**** Reducing the risk of stand-replacing wildfire, measured by the number of acres treated and by adjusting projected fire behavior from high-severity fire potential to moderate-low over the majority of the project area, is a primary objective and measure of success for the project.
- ***Improvement of water quality and quantity***.* Improving and protecting water quality and quantity are primary indicators of success among project partners.

* Although it is too soon to determine whether the project has significantly reduced severe wildfire risk and the subsequent effects on water quality and quantity, these are ultimate goals project partners would like to achieve.

Partners gathered at the Museum of Northern Arizona's Easton Collection Center for the FWPP signing ceremony, with the Dry Lake Hills in the background. One of the unique factors for FWPP success was the ability of all levels of government and citizens to work together.

Lessons Learned

Manage expectations regarding NEPA requirements and timelines. One of the greatest initial challenges of the FWPP was managing expectations from City staff, City Council, and the community. Each group's unfamiliarity with the NEPA process led to unrealistic expectations for the length of time it would take to complete the environmental planning.

Although the USFS prioritized the project, novel factors including unexpected changes in the appeal/objection process and requirements to complete FWS consultation (Biological Opinion) prior to releasing the Draft ROD affected the analysis timeline. In addition, despite early planning/scheduling at the forest level, higher regional priorities resulted in a longer review period.

The completion of the environmental analysis, however, took one to two years less time than most USFS analyses for two reasons: 1) the USFS supported it with directed resources (funds and staff), and 2) the USFS planned ahead and collected data during the field season prior to the bond's passage. If the USFS had not done this, the timeline would have been prolonged even further (at least an additional year).

Even though it took the USFS less time than usual to complete the planning, some within the City and community expected it to be completed sooner. Looking back, additional effort to educate internal City decision-makers about NEPA timelines and regulatory processes and how that translates to budgetary and staffing needs would have assisted in the City decision-making process. Goodrich, the City's management services director, said this was especially true

In the summer of 2013 the USFS and City conducted a pilot project to assess the impacts and capabilities of logging equipment on steep slopes and the best methods for slash piling on slopes (to allow for the greatest consumption during prescribed pile burning). Lessons learned from this pilot project were used for larger scale planning in the FWPP.

in projecting an adequate dollar amount for the bond issuance over time. The issuance for the first two years was much greater than what was actually needed, and issuing less could have saved the City money in interest. In retrospect, Goodrich believed the City could have used cash reserves for these relatively small expenditures and in turn could have used the bond funding for reimbursement at a time when greater increments were required.

Be prepared to show immediate on-the-ground progress. In the first two years the USFS (on previously NEPA-approved land within the project boundary), the City, and the state in total implemented thinning and prescribed burning on approximately 1,200 acres. These accomplishments gave citizens, decision makers, and political leaders assurances that the project was underway. Knowing that the public does not always see the necessary phase of environmental planning as an achievement — as most of it occurs behind the scenes — the project team was prepared to demonstrate immediate action on the ground. This early implementation was, according to Summerfelt, a "critical component" to ease public concern/interest while the federal environmental analysis was taking place.

Assure quality internal communication within the USFS. In looking back, the forest identified internal communication as one of their greatest challenges. FWPP is a high profile project that has attracted great interest across all levels of the agency. Although the agency continued to show support for the project by providing additional and unexpected resources, the regional/national levels were juggling many priorities and issues. Higher agency levels had a different sense of urgency for the FWPP timeline than the forest or the City. Despite efforts from the beginning to coordinate with all agency levels and departments, there were several stages where higher levels required additional time for review or provided instructions, which ultimately resulted in a longer timeline.

(From left) USFS Hydrologist Tom Runyon, Silviculturist Andy Stevenson, FWPP Project Manager Erin Phelps, Fuels Specialist Beale Monday, and FWPP Operations Specialist Mark Brehl. The FWPP demonstrates how government agencies and communities can come together to think proactively, form solid partnerships, and tackle a problem head-on.

Convey project as an investment, not a cost. Partners were able to convey to voters that the $10 million bond, funded through a property tax, is an "investment" in the community and should not be perceived as a "cost." The investment is relatively minor, given the full cost of responding to and mitigating a severe wildfire and the long-lasting financial impacts these fires have on communities (Arizona Rural Policy Institute 2014) (Cowan 2014).

Keep the management structure simple. Lastly, the City created more structure in the form of working groups and teams than was necessary. Looking back, project team members say they would keep the structure simple and include only the most relevant working groups. However, according to Burke, by all accounts, two teams proved indispensable — the Executive and Communication teams. The Executive Team has been effective in the overall management of the process. Similarly, while the Communication Team has ebbed and flowed based on its workload, it has been necessary to provide timely information to the public and keep the project moving forward.

Conclusion

From the outset, FWPP operated under the premise of "immediate action." Through first-hand experience with the Schultz Fire and subsequent post-fire flooding, the public had a clear understanding of the need for the project and they supported immediate action to prevent a similar event from happening again. In addition, the City and stakeholders had only nine months to advance the project from inception to the ballot box. Further, the "high profile"

status of FWPP in Washington, D.C. prioritized the project and commanded a sense of urgency after the bond had passed. Established collaborative groups and alliances further propelled the initiative into action. Finally, the 2008 recession resulted in less federal and state funding and strengthened the City's resolve to become more sustainable, resilient, and self-reliant.

The first two years of FWPP primarily focused on planning. The challenges in these first two years were generally minor primarily due to the long-standing, positive relationship and proactive approach of the joint City and USFS project team. With a signed Final ROD expected for fall 2015, implementation can begin when conditions allow on federal land.

The FWPP demonstrates how government agencies and communities can come together to think proactively, form solid partnerships, and tackle a problem head-on. FWPP is a powerful example of City residents willing to reach into their pockets to confront a problem for a project located outside of the City boundary, which had traditionally been the responsibility of the state and federal governments. Although City residents voted to fund the project entirely, the project has attracted significant additional funding that leverages each City dollar of investment. The FWPP serves as a model of the advantages of working cooperatively across jurisdictions to achieve mutual benefits. After all, when the values at risk are assessed, the level of investment far outweighs the potential fallout of a catastrophic event.

Acknowledgments

The author would like to thank the following people for their time in the form of interviews and in-depth information they provided: Kevin Burke, City Manager; Paul Summerfelt, City FWPP Project Manager; Barbara Goodrich, City Management Services Director; Stacey Brechler-Knaggs, City Grants Manager; Erin Phelps, USFS FWPP Project Manager; Mike Elson, USFS District Ranger, Flagstaff District; and Mark Brehl, FWPP Field Operations Specialist, Flagstaff Fire Department. The author would also like to acknowledge Marcus Selig, director of Colorado programs for the National Forest Foundation, for reviewing the paper. Special acknowledgement goes to Paul Summerfelt and Erin Phelps for extensive review of the paper.

Acronym Index

CWPP – Community Wildfire Protection Plan
EA – Environmental Assessment
EIS – Environmental Impact Statement
ERI – Ecological Restoration Institute
FWPP – Flagstaff Watershed Protection Project
FWS – U.S. Fish and Wildlife Service
GFFP – Greater Flagstaff Forests Partnership
IDT – Interdisciplinary Team
MOU – Memorandum of Understanding
MSO – Mexican Spotted Owl
NAU – Northern Arizona University
NEPA – National Environmental Policy Act
NFMA – National Forest Management Act
NGO – Non-governmental Organization
PA – Proposed Action
PIL – Project Initiation Letter
PIO – Public Information Officer
ROD – Record of Decision
SAM – System for Award Management
SPA – Supplemental Project Agreement
USFS – U.S. Forest Service

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APPENDIX A – Summary of Steps Used to Plan and Implement FWPP

Although the order of steps a community may take can vary from project to project, the steps taken by FWPP are presented in a logical progression and are divided into two sections: 1) Before a cooperative project is authorized and funded, and 2) Once a cooperative project is authorized and funded.

Steps Before a Cooperative Project is Authorized and Funded

Step 1: Don't overlook opportunities.

Keep an open mind when presented with an idea that has seemingly unreachable potential. This was especially true when the City presented the forest with the watershed protection concept and forest officials were skeptical at first. This reflects on the importance of fully examining the potential of a novel concept and being willing to step into action.

Step 2: Evaluate the community's past performance.

Before a groundbreaking initiative is brought forward, an evaluation is necessary to ensure the public, decision-makers, and elected officials are supportive and prepared. The assessment should begin with collaboratively developing clearly defined issues and solutions that the partners have the capacity to address and that the community supports. Results of the assessment will drive next steps; this may include further public outreach and education, or building and aligning critical partnerships. This should also include examination of past initiatives, collaborative work, and prominent events that would allow for project success. To assist in conducting the evaluation, see Box 1, "Conceptualizing a Community Based Initiative," and Box 2, "Questions Considered by the FWPP Project Partners" (page 6).

Step 3: Build on past efforts and events.

The best way to communicate treatment effectiveness is through successes and failures occurring close to home. To send a powerful message, highlight real examples of what happens when forest treatments are either present or absent. In the Flagstaff community, treatments proved effective in containing wildfires. On the other hand, wildfires in areas lacking treatments were more difficult to manage and resulted in more significant, long-lasting community and environmental impacts. For FWPP, treatment results, coupled with 19 years of past collaborative work, translated into a pronounced opportunity to move forward with an initiative that expanded upon these prior efforts. Although the scope was much broader and encompassing than what had previously occurred, the proposed initiative was operating under the same premises and principles as these past efforts; therefore, paving the way to address a much broader vision for future resiliency and sustainability of the community as a whole.

Step 4: Follow organizational processes to initiate the project.

Understanding and following organizational processes is one of the first steps needed to introduce a project's concept to potential partners. The process to begin a project and enter into agreements is largely determined by the project's scope and the required steps vary from forest to forest. Similarly, municipalities each have a set of processes and protocols to follow. The steps outlined in Box 4, "Steps the Coconino National Forest and the City of Flagstaff Followed to Initiate FWPP," provide guidance (page 14).

Step 5: Develop a project proposal.

Based on the identified issue and solution, develop a project proposal that includes a scope of work and associated costs. Once the scope of the project is defined, land jurisdiction and/or relative locations of associated lands will determine whether there are opportunities for cost-share and/or leveraged funds from government partners, which will increase the availability of resources and strengthen the proposal. These factors may need to be reevaluated regularly throughout the project.

Step 6: Be prepared to show immediate progress.

As the scope of work is developed, be sure to include hard, fast targets that demonstrate immediate progress. In the first two years, the USFS (on NEPA-approved lands), City, and state were able to treat approximately 1,200 acres. Without these accomplishments, project officials believe public support would have deteriorated over time because voters are typically unaware of the time (2 to 3 years) federal planning takes. The lack of general understanding about NEPA timelines can trigger questions about the project's progress and cast doubt on citizens' investment.

Step 7: Determine best funding mechanism.

Based on the scope of work, identify potential funding sources/mechanisms that best fit the project. In considering which funding mechanism to use, FWPP proved there are inherent advantages to seeking voter approval through a bond measure. Voter support sends a powerful policy message to decision makers, elected officials, interest groups, and residents. This approval provides momentum, resources, and increased capacity from government and non-government organizations. Voter backing also encourages stakeholders and community members to understand the tradeoffs, which can result in a willingness to compromise to achieve project goals. Voter approval will also assist in approaching citizens to fund future treatment maintenance. Lastly, the vote incentivizes the need for transparency and accountability, which further promotes the necessary mechanisms that are most effective in organizing and tracking the project's processes and accomplishments.

Steps Once a Cooperative Project is Authorized/Funded

Step 8: Involve the appropriate individuals/personalities.

Engage staff members who are excited, committed, and knowledgeable about the project. Find those that "have the will to find the way." For FWPP, having a leader willing to champion the cause made the difference. Without this leadership, the initiative may not have moved forward. Both partners agree that personalities of various team members created a solid front. In particular, members of the IDT were selected based on personal and professional attributes and directly contributed to overall project success.

Step 9: Prioritize the project within organization(s).

Assuring primary partners are willing to prioritize the project within their organizations provides security by demonstrating a level of commitment and shared risk. In the case of FWPP, the USFS not only prioritized this within the local forest, but also received support from regional and national levels. This level of commitment provided the City with assurances the project would move forward.

Step 10: Agree on decision space.

A critical step to effectively implementing a project is to understand, agree on, and define each partner's decision space. In the case of FWPP, clear decision-making roles are essential. The City holds the funding authority and the USFS has decision-making authority on National Forest lands. The Cooperating Status MOU included the City on the IDT, which bridged the decision space and assured solid lines of communication.

Step 11: Manage stakeholder expectations.

To keep the project moving forward, it is best to identify stakeholder's concerns upfront and encourage them to actively participate in the public process. It is important to identify the issues and concerns of various interest groups early on in the process. This will alleviate potential roadblocks and provides these groups with a sense of accountability and ownership. If issues are not addressed properly, stakeholders may choose to oppose the project, which can deter its progress. For example, the FWPP partners believe including FWS and Arizona Game and Fish Department on the IDT helped to address ongoing concerns for MSO habitat and gained the needed trust with the public and various interest groups.

Step 12: Assign project managers.

Assigning project managers for each partner with exclusive oversight of the project is essential and provides consistency and accountability, and is a critical communication bridge. Additionally, having line officers/officials who are continuously engaged (District Ranger/Forest Supervisor on the federal side; City Manager on the City side) allows for timely decision-making, increases efficiency, and improves project timelines.

Step 13: Establish work teams.

To assist in organizing the project's workload, it is important to establish work teams with specific roles and responsibilities. It is best to structure work teams with a diverse representation of partners, positions, and skill sets. Multiple, small work groups complete the work required by FWPP. Notably, the Executive Team, which is comprised of project managers and decision-makers, is an ideal combination of members who each have varying levels of involvement with the project. Members are able to break down roadblocks and access resources needed for speedy solutions. The Executive Team also ensures continuity of interest and support from all parties at the table.

Step 14: Involve community collaborative groups.

Including an established community collaborative (NGO) with a similar mission and scope has the potential for steering community support, increasing capacity, and elevating the ability to achieve quality and timely project specific products and outcomes. In addition, a community organization, such as GFFP, has fewer limitations than government entities, and therefore can act as "another voice" in communicating the project to interested parties.

Step 15: Establish an internal communication process.

Establishing adequate internal communication within an organization is an important step in the communication process and translates to increased efficiency. To manage expectations from various levels in an organization and increase efficiency, it is important to identify the agency or organization's internal communication needs and procedures upfront. Looking back, the USFS believes this upfront work could have alleviated some of the back stepping that occurred as internal communication processes and needs unfolded. Similarly, from the City's perspective, their internal audience is most important to acknowledge. This group is easy to overlook and many times those more closely tied to the project assume City staff is "in the know" and supportive. Moreover, fully briefing this audience is crucial to assure accurate information is relayed through various professional networks.

Step 16: Educate decision makers.

To assist with project planning and manage partner expectations, it is paramount to educate decision makers about partner processes. In the case of FWPP, some City staff did not have a thorough understanding of the NEPA process and timelines. This may have translated into improved budgetary and staffing forecasts. For example, this may have assisted City staff in estimating a more accurate amount of bond issuance for the first two years.

Step 17: Anticipate tasks that expedite the project's timeline.

To expedite the planning process, it is best to prepare before an initiative's approval. In anticipation of the bond's passage, the USFS began numerous processes and tasks (e.g. data collection needed to complete the Draft EIS and PIL) that accelerated initiation of the project as well as the project's overall timeline.

Step 18: Initiate discussions and identify deliverables.

Once the project has been approved and funded, a necessary first step is to initiate discussions among partners and identify the products needed to move forward. This assures that the appropriate communication and procedural steps occur between partners and within organizations**.** Planning documents like the Communication Plan and Implementation Plan were essential in designing and executing the project. Not only did these documents provide the background and foundational direction for partner and public interactions, but also the plans streamlined

internal communication and assurances to higher levels within the agency/municipality, whether it was to the USFS regional office or to City Council. Neither partner required such plans, but they were essential in presenting a solid partnership.

Step 19: Conduct long-term planning.

For a federal partner to develop an environmental analysis, it must first determine the planning instrument (e.g. Environmental Assessment versus Environmental Impact Statement) that best fits the project's scope. The potential public reaction and subsequent risk for legal challenges are important considerations in selecting the best planning mechanism. From the agency's standpoint, carefully weighing the appropriateness of the instrument (EA versus EIS) improves internal risk management; whereas, selecting the correct planning tool upfront avoids back stepping and assists in efficiently completing the required environmental planning. Moreover, directly aligning the "Purpose and Need" with the purpose of the bond ballot measure simplified the planning process and shortened the planning timeline. Another critical juncture was not selecting or developing a preferred alternative in the Draft EIS. The City and the USFS see the FWPP as the "community's project" and this decision aligned with the need for public participation.

Step 20: Determine appropriate agreements/instruments.

Begin by sharing the project's specifications with the USFS Grants and Agreements Specialist who decides which authority and agreement instrument provides the most utility. There is no cookie cutter agreement used to address the goals of all initiatives. Although the specific agreements used in FWPP will not be directly applicable to other initiatives, the process and the steps used provide an example of the general agreement process (see Box 4, "Steps the Coconino National Forest and the City of Flagstaff followed to initiate FWPP," page 14).

Step 21: Register with System for Award Management (SAM).

An organization is required to register with the System for Award Management (SAM) portal (www.sam.gov) to give money to, or receive money from, the federal government. Even if an agreement is not funded, all parties to the agreement are required to have an active registration in SAM. An active registration assures the federal government that the cooperators are financially sound and viable partners.

Step 22: Present a unified multiparty partnership.

Presenting a solid partnership with representation from a broad expanse of partners, ranging from the federal government to a local NGO, yields distinct advantages. Although policy and laws may tie the federal government's hands, community groups and municipal entities, such as GFFP and the City's Fire Department, are able to react and respond to concerns in a more direct and convincing manner. In addition, the multi-party approach allows for efficiency and increased capacity that a single government entity alone cannot achieve.

Step 23: Keep the project relevant and visible. Show progress.

Provide opportunities to highlight project accomplishment. As FWPP evolved, there were numerous examples of various project milestones.

1) The signing ceremony solidified the agency/public partnership.
2) Periodic updates and briefings of the project's accomplishments to City Council ensure the project remains in the public's view.
3) On-the-ground accomplishments achieved on city, state, and federal lands were highlighted through different communication channels, such as in FWPP's Biannual Report (posted on the website and distributed at public events), articles in the local newspaper, and throughout partner networks. An interactive Google map available on the project's website provides implementation accomplishments.

4) The project tracks and highlights leveraged funds — totaling a 20 percent return on the initial investment.
5) Project team members addressed and engaged the public and interest groups early and often in an effort to corral public support. To date, the City and USFS believe these interactions have been positive and both partners do not foresee major roadblocks surfacing from these groups.
6) The USFS included the public in the planning process, resulting in a relatively sizeable number of public comments on the Draft EIS.
7) The early results of the "FWPP Cost Avoidance Study" *(www.flagstaffwatershedprotection.org/wp-content/uploads/2014/10/Final-FWPP-Cost-Avoidance-October-27.pdf)* assured voters they made the right choice in their investment. The report presented data that showed the initial investment of $10 million was a wise choice (compared to the estimated cost of an unnatural crown wildfire ranging from $573 million–$1.2 billion).

Appendix B – City of Flagstaff Leverage Reports (2013 and 2014)

To view the City of Flagstaff Leverage Reports from 2013 and 2014, visit *http://tinyurl.com/COFLeverageReports*.

Appendix C – FWPP Communication Plan

To view the Flagstaff Watershed Protection Project Communication Plan, visit *http://tinyurl.com/FWPPCommunicationPlan*.

Appendix D – FWPP Implementation Plan

To view the Flagstaff Watershed Protection Project Implementation Plan, visit *http://tinyurl.com/FWPPImplementationPlan*.

Appendix E – FWPP Project Initiation Letter

To view the Flagstaff Watershed Protection Project Initiation Letter, visit *http://tinyurl.com/ProjectInitiationLetter*.

Appendix F – Federal Statutory Authorities

To view the Federal Statutory Authorities, visit *http://tinyurl.com/FederalStatutoryAuthorities*.

Appendix G – U.S. Forest Service Instruments and Agreements for FWPP

1) **Memorandum of Understanding (MOU)**
   To view the MOU signed by the City of Flagstaff and the U.S. Forest Service, visit *http://tinyurl.com/FWPPmou*.

2) **Cooperating Agency Status MOU**
   To view the Cooperating Agency Status MOU, visit *http://tinyurl.com/CoopAgencyMOU*.

3) **Master Participating Agreement**
   To view the Master Participating Agreement for the Flagstaff Watershed Protection Project (FWPP), visit *http://tinyurl.com/FWPPmpa*.

4) **Supplemental Project Agreement: Demo Project**
   To view the Supplemental Project Agreement for the FWPP Demonstration Project, visit *http://tinyurl.com/FWPPdemo*.

5) **Supplemental Project Agreement: Boundary Line Survey**
   To view the Supplemental Project Agreement for the FWPP Boundary Line Survey, visit *http://tinyurl.com/SPAboundary*.

6) **Financial Planning Forms (short, medium, and long forms combined)**
   To view the short, medium, and long financial planning forms used by FWPP, visit *http://tinyurl.com/FinPlanningForms*.

Intermountain West Frequent-Fire Forest Restoration

Ecological restoration is a practice that seeks to heal degraded ecosystems by reestablishing native species, structural characteristics, and ecological processes. The Society for Ecological Restoration International defines ecological restoration as "an intentional activity that initiates or accelerates the recovery of an ecosystem with respect to its health, integrity and sustainability… Restoration attempts to return an ecosystem to its historic trajectory" (Society for Ecological Restoration International 2004).

Throughout the dry forests of the western United States, most ponderosa pine forests have been degraded during the last 150 years. Many ponderosa pine areas are now dominated by dense thickets of small trees, and lack their once diverse understory of grasses, sedges, and forbs. Forests in this condition are highly susceptible to damaging, stand-replacing fires and increased insect and disease epidemics. Restoration of these forests centers on reintroducing frequent, low-intensity surface fires—often after thinning dense stands—and reestablishing productive understory plant communities.

The Ecological Restoration Institute at Northern Arizona University is a pioneer in researching, implementing, and monitoring ecological restoration of dry, frequent-fire forests in the Intermountain West. By allowing natural processes, such as fire, to resume self-sustaining patterns, we hope to reestablish healthy forests that provide ecosystem services, wildlife habitat, and recreational opportunities.

The ERI Issues in Forest Restoration series provides overviews and policy recommendations derived from research and observations by the ERI and its partner organizations. While the ERI staff recognizes that every forest restoration is site specific, we feel that the information provided in the series may help decision-makers elsewhere.

This publication would not have been possible without funding from the USDA Forest Service. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the United States Government. Mention of trade names or commercial products does not constitute their endorsement by the United States Government or the ERI.

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