



STRATEGIC PLAN

2022 - 2026



Institute for
Applied Ecology

1850 Old Pecos Trail, Suite I
Santa Fe, NM 87505

www.southwestseedpartnership.org

Developed by the Institute
for Applied Ecology and the
Southwest Seed Partnership
Steering Committee

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
ACKNOWLEDGEMENTS	2
INTRODUCTION	3
Southwest Seed Partnership Goal and Vision	3
Offsetting the Effects of Climate Change	3
History	5
Scope	7
Stakeholders	8
Subcommittees	9
Purpose of strategy	9
Format Design of the Strategy	10
Goal 1: Assess needs and gaps in the supply & demand chain for native seeds in the SW	11
Objective 1: Conduct seed needs and capacity assessments	11
Objective 2: Develop species target lists by seed zone	12
Objective 3: Coordinate collaborative collection, production, restoration, and research...	12
Goal 2: Expand capacity for native plant materials development	14
Objective 1: Formalize the SWSP	14
Objective 2: Secure highest priority equipment and facilities needs in NM & AZ	15
Objective 3: Expand Production	15
Objective 4: Develop a Financial Plan	16
Objective 5: Establish programs, curriculum, and protocols	17
Goal 3: Support farmers and nurseries	18
Objective 1: Provide training to new native seed farmers to grow, harvest, and clean	18
Objective 2: Assist with capacity building and funding for new farms and nurseries	19
Objective 3: Share data from R&D fields	19
Objective 4: Increase marketplace stability	20
Objective 5: Connect seed buyers looking for particular species and sources with seed vendors	21
Goal 4: Deliver research-based restoration techniques and tools	22
Objective 1: Demonstrate value added using high quality native plant materials	22
Objective 2: Engage formal and collaborative research	23
Objective 3: Engage formal and collaborative research to address our most pressing native seed issues	24
Objective 4: Share native plant materials tools	24
2022 Work Plan	25-26
Preliminary Fundraising Plan	27-28



EXECUTIVE SUMMARY

This strategic plan outlines the goals and objectives of the Southwest Seed Partnership (SWSP) over a five-year period. The SWSP is a collaborative effort among diverse stakeholders with a vested interest in native plant materials development in New Mexico and Arizona. The SWSP is coordinated by the Institute for Applied Ecology, Southwest Office, and funded by federal, state, and private entities. The partnership relies heavily on agricultural production of native plant materials, working closely with both farms and nurseries to improve the supply of locally sourced, genetically diverse materials for improved restoration success in the Southwest. The methodology of seed collection, plant materials conservation, and on-the-ground activities of the SWSP supports the health and persistence of native ecosystems in the face of climate change. The plan identifies four major goals expected to lead to widespread availability of native seeds:

- 1) Assess needs and gaps in the supply & demand chain for native seeds in the Southwest,
- 2) Expand capacity for native plant materials development across New Mexico and Arizona,
- 3) Support farmers and nurseries growing diverse, locally sourced materials while bolstering the Southwest native seed industry, and
- 4) Deliver research-based restoration techniques and tools.

These goals are broken down into specific, actionable objectives and milestones for native plant materials development work during 2022-2026. Key funded tasks to complete in 2022 include conducting seed need and capacity assessments for seed users and vendors, formalizing the partnership with an MOU, and developing a mechanism for increased partner collaboration on native seed production fields. A few examples of unfunded, high priority tasks over the next five years include the purchase of a dust evacuation system to facilitate seed cleaning operations, expanded farm and nursery capacity assessments, establishment of a seed collection crew base station in Arizona, and a sustainability plan that would transition seed production fields from producer contracts to farmers growing and selling these seeds on speculation.

The strategic plan builds in accountability (by providing an implementation timeline and 2022 workplan), partnership sustainability (by identifying funding opportunities and prioritizing tasks) and strengthened collaboration and resource sharing (by identifying partner commitments). Stakeholders will be able to readily understand the priorities and collaborative model of the partnership, a model that pools resources to meet the shared demand for high quality native plant materials for use in restoration projects in New Mexico and Arizona.

ACKNOWLEDGEMENTS

The strategic planning process was facilitated by the Institute for Applied Ecology (IAE) in 2021, with support from John Ross Company, LLC and the SWSP Steering Committee. Maria Mullins (IAE Southwest Assistant Branch Director) and Melanie Gisler (IAE Southwest Branch Director) provided content and format and incorporated feedback. Sara Digby (IAE Educator) provided graphic design. We thank the members of the SWSP Steering Committee for participating in the collaborative planning process, providing expert feedback to the strategic plan, and supporting the Southwest Seed Partnership: Zoe Davidson, Bureau of Land Management (BLM); Kathryn Kennedy, USDA Forest Service (USFS); Molly McCormick, United States Geological Survey (USGS); Jason Martin, National Park Service (NPS); Jennifer Owen-White, United States Fish and Wildlife Service (USFWS); Katie Sandbom (USFWS); Gita Bodner, The Nature Conservancy (TNC); Isaac Mpanga, University of Arizona Cooperative Extension (UACE); John Busemeyer, New Mexico Department of Transportation (NMDOT); Kelly Wolff and Justin Ladd; Arizona Department of Game and Fish (AZDGF). The tremendous progress made in plant materials development in the Southwest over the past five years would not have been possible without the support of our funders, collaborators, and stakeholders.



The [Institute for Applied Ecology](#) is a non-profit organization dedicated to conserving native species and habitats through restoration, research, and education. IAE was founded in 1999 in Corvallis, Oregon. In 2015, IAE established a branch office in Santa Fe, New Mexico. IAE coordinates three native seed partnerships including the [Southwest Seed Partnership](#), [Willamette Valley Native Plant Partnership](#), and the [Coastal Native Seed Partnership](#). IAE hosts the [Native Seed Network](#) website and co-hosts the [National Seed Conference](#).

INTRODUCTION

SOUTHWEST SEED PARTNERSHIP GOAL AND VISION

Goal: To increase the availability of native plant materials for restoration and conservation in New Mexico and Arizona.

Vision: A two-state, multi partner collaboration that leverages resources to supply a diversity of species and sources to restoration projects of all scales in the Southwest and made possible through a sustainable native seed economy.

OFFSETTING THE EFFECTS OF CLIMATE CHANGE

The US Global Change Research Program has identified the Southwest as an area whose climate is particularly vulnerable to an increase in greenhouse gases in the atmosphere ([Christensen et al. 2007](#), [Seager et al. 2007](#)). As such, arid landscapes of the Southwest are anticipated to experience the effects sooner and more profoundly. Through our strategic approach to plant materials development, the SWSP offers tangible, on-the-ground solutions that can protect arid landscapes into the future. The SWSP is focused on a specific type of germplasm/plant material that is expected to be more successful long term: locally sourced plant materials with high levels of genetic diversity. The SWSP helps to offset the effects of climate change through the following methods:



THE US GLOBAL
CHANGE
RESEARCH
PROGRAM HAS
IDENTIFIED THE
SOUTHWEST AS
AN AREA WHOSE
CLIMATE IS
PARTICULARLY
VULNERABLE TO
AN INCREASE IN
GREENHOUSE
GASES IN THE
ATMOSPHERE.

LOCAL SOURCES



Species adapt to their local environment and tend to perform and survive better where they are adapted.

The importance of local sourcing and establishing seed transfer zones for plant materials has been demonstrated in provenance studies for tree species since 1942 ([Risk et al, 2021](#)) as well as several more recent studies for herbaceous species (i.e., [Germino et al, 2019](#), [Rowe and Ledger, 2012](#)). SWSP seed sources are kept separate, and seed transfer zones are carefully considered using the best science available. The SWSP collaborates with USFS, USGS, and Northern Arizona University to conduct genetic research and literature reviews that inform seed transfer zone decisions, identifying bridges between seed zones and climate adaptation modeling.

GENETIC DIVERSITY



Genetic diversity can increase the adaptive capability and resilience of restoration seedings, thus supporting their survival through changing climates.

The SWSP takes several steps to capture genetic diversity including sampling widely across populations, collecting from a minimum of 50 individuals, collecting seeds from a range of morphologies – even smaller plants, collecting at different times of the year and over several years, collecting during drought years, sampling from multiple sites and combining sources as appropriate, and stratifying collections across seed zones.

DIVERSITY



The SWSP collects, produces, and conducts restoration with a diversity of species – from annuals to perennials and from matrix grass species to specialty forbs.

Besides providing healthier ecosystems with more ecological services for pollinators, wildlife, and soil microbes, providing species diversity at restoration sites also supports resilient plant communities by increasing the likelihood that one or more species will be able to adapt or survive a catastrophic event. Commercial markets currently offer limited species diversity for sale in the region, with very few forbs available. The SWSP is developing plant materials not previously available on the open market.

SEED TRACKING



The SWSP tracks seeds and plant community information.

As landscapes shift in response to climate change and other challenges, restoration practitioners will have fewer reference sites guiding habitat restoration targets. Because seed tracking documents plant communities/ associated species, habitat, and habitat quality, records of past collection sites and associated species can help inform restoration in the future if reference sites are limited. Seed tracking is also key to monitoring restoration performance of different species and sources.

SEED QUALITY



With the added stressors of climate change, ecosystems become more vulnerable to plant species invasions.

Testing and certification of seed lots are two techniques ensuring seed quality and helping to prevent inadvertent introductions of weeds and invasive species during restoration seedings to sites already vulnerable to invasive species. Seed quality, high levels of purity and viability, is a priority for the SWSP. In 2020, the SWSP co-developed a Pre-Varietal Germplasm (PVG) Seed Certification Program for New Mexico with the New Mexico State Seed Certification & Noxious Weed Free Program (SCNWFP) providing a model that is transferable to other states including Arizona.

SEED BANKING



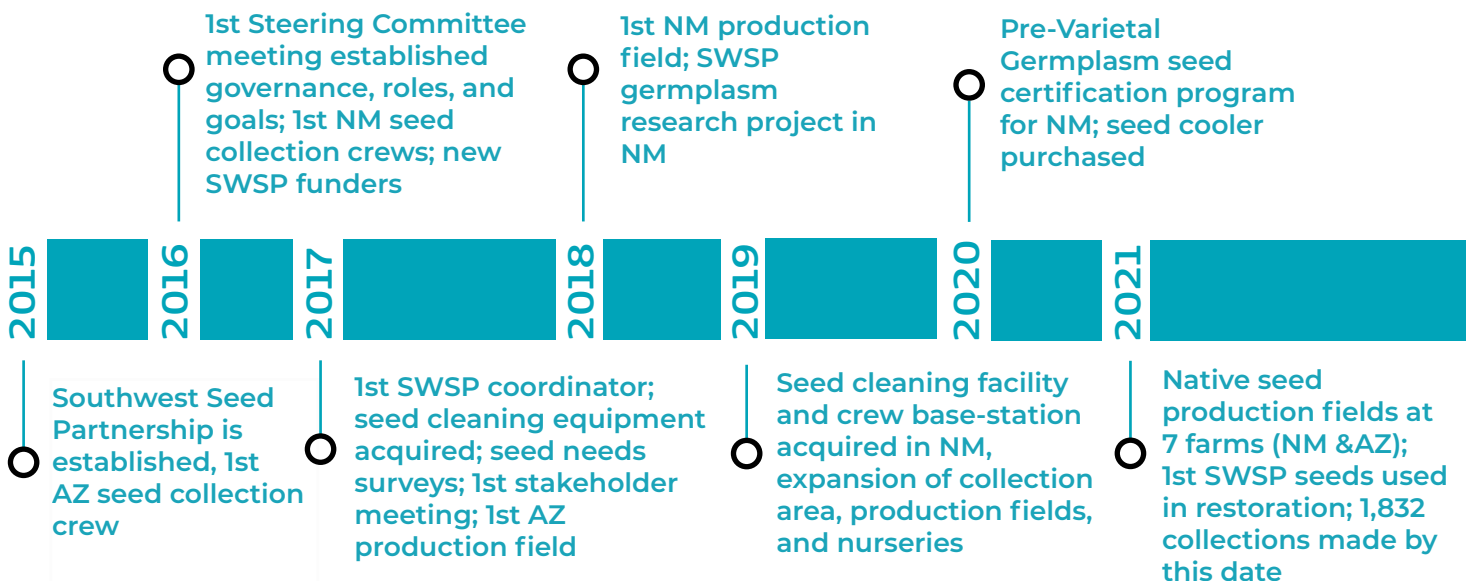
Seed banking is critical.

If natural populations or an entire species is lost due to a climate driven catastrophic event, such as a high intensity fire or major flood, banked seeds can be used to recover them. Working in conjunction with the US Department of the Interior's [Seeds of Success](#) program, SWSP seeds, representing different populations and species, are saved and stored in long-term storage at the [Agricultural Research Service \(ARS\)](#) long-term germplasm repository. Also in 2020, the SWSP purchased a state-of-the-art, humidity-controlled seed cooler to protect seed viability and bank seeds medium-term.

HISTORY

The formation of the Southwest Seed Partnership in 2015 was in direct response to restoration practitioners' and land managers' frustration over the lack of native seeds available in the Southwest, a region with high demand for seed for use in habitat restoration, post-fire rehabilitation, oil and gas reclamation, and at-risk species recovery projects. Particularly lacking was a supply of locally sourced materials and a diverse selection of species beyond a few common grasses. The initiation of the partnership was fortuitously timed with the release [National Seed Strategy](#) by the Department of Interior in the same year (2015), which identified the need for plant materials development across the United States and provided guidance and structure for this work. The decision to establish a regionally based native plant materials program was both biologically and economically practical given the fact that New Mexico and Arizona share ecoregions with similar climatic and environmental conditions and share challenges associated with sourcing native plant materials and lower success of arid-land restoration seeding. The USDA Forest Service Region 3 and the New Mexico Bureau of Land Management provided start-up funding to the Institute for Applied Ecology to coordinate the partnership, and the National Park Service provided technical and labor support. Early stages of the partnership established new collaborators, developed funding sources, facilities and equipment, seed collection teams, and farmer networks. Over the past 5-6 years, the SWSP has significantly expanded in the number of collaborators and growers, geographic range, facilities and equipment, programs (including seasonal employment programs for youth and a Department of Corrections horticultural program), applied research, and most importantly, seeds collected and produced and ready for use in restoration projects.

TIMELINE





Despite this great progress, additional work and expanded capacity are needed to achieve widespread native seed availability in the Southwest. Over the next ten years, the SWSP plans to work to overcome obstacles to this goal, such as the prohibitive costs of native seeds, limited commercial supply of ecologically appropriate materials, limited number of native seed producers in Southwest ecoregions, and challenges smaller scale native seed growers confront selling seeds on the open market. Opportunities include a high demand for ecotypic plant materials, improved knowledge of best practices for native species in cultivation and restoration, and continually expanding collaborative networks among researchers, restoration practitioners, and seed producers. Success depends on this collaboration, and any organization or individual with a hand in native plant materials is encouraged become a formal member of the partnership.

SCOPE ---

To date, the Southwest Seed Partnership is actively working in eight of the ten ecoregions shared by New Mexico and Arizona. Sister programs are in the Colorado Plateau and Sonoran Desert Ecoregions, and the SWSP collaborates with these programs.

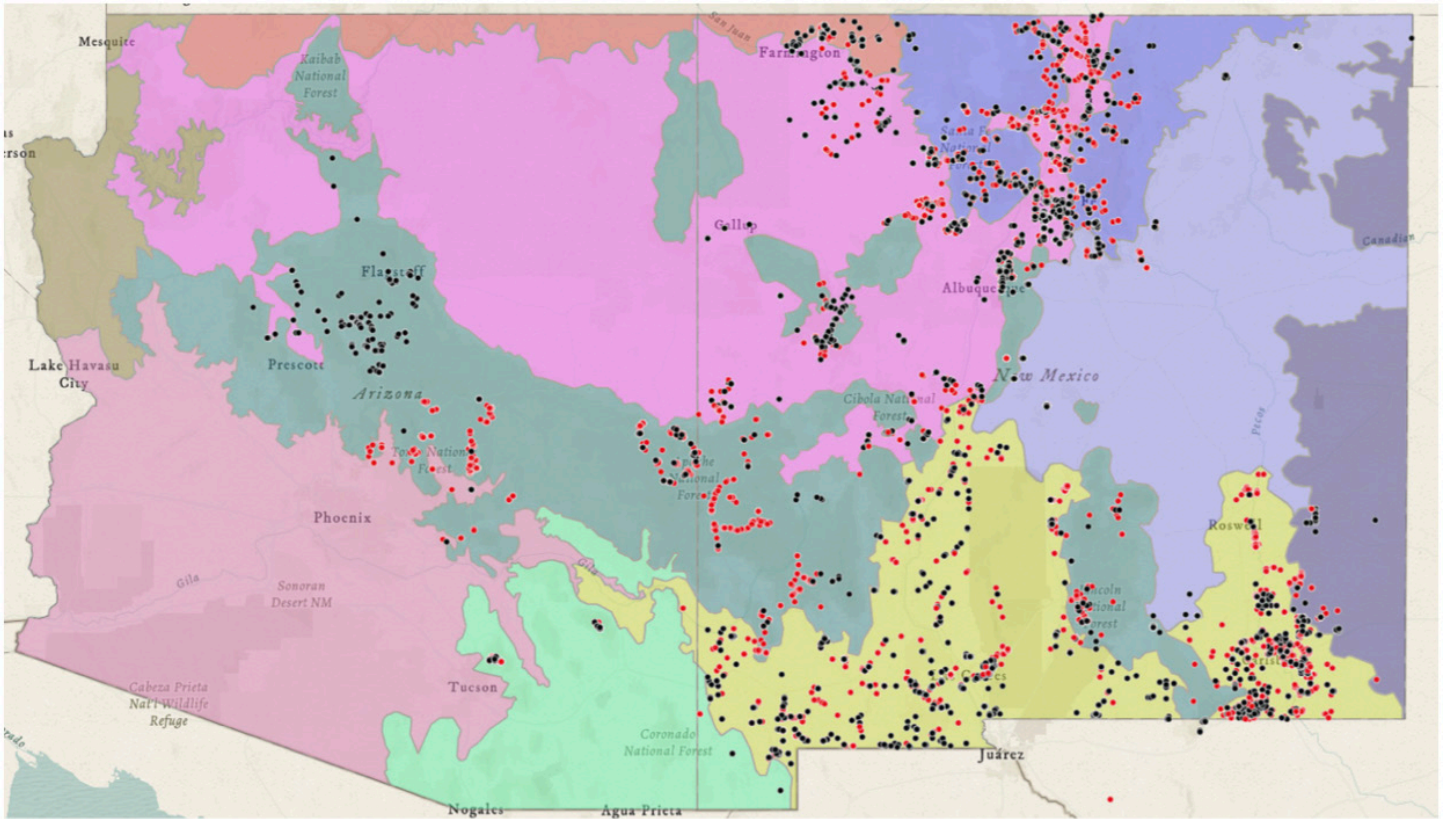


Figure 1: Black points represent seed collections made through the SWSP 2015-2021. Red points represent scouting points made by SWSP crews 2015-2021.



STAKEHOLDERS

The partnership is made up of diverse stakeholders with expertise and interest in plant materials development from both producer and seed user perspectives. Stakeholder representatives are from public land management and natural resources agencies, farms and nurseries, tribal agencies, academic institutions, and non-government organizations. The SWSP is a Collaborative Partnership Model where partners support different tasks or needs associated with plant materials development and may also collaborate on seed collection, production, and research facilitated by SWSP. Stakeholders participate in meetings, complete seed-needs assessment surveys, and are invited to sign the SWSP Memorandum of Understanding (MOU). The MOU is expected to be finalized in 2022. The Southwest Seed Partnership Coordinator will send the MOU to stakeholders over email to review and invite stakeholders to sign the document to formalize participation. Stakeholders will obtain any needed authorization and notify IAE should they choose to add their organization's name to the document. Partners will have up to 3 months to sign the document. This MOU is neither a fiscal nor a funds obligation document and is not legally obligating. Stakeholders are not required to sign the MOU to participate and contribute to the partnership or engage in plant materials development activities.

Some stakeholders also contribute funding, technical expertise, research results, outreach and outreach venues, volunteer labor, facilities, or other resources. Annual stakeholder meetings are a full day and host approximately 60 participants representing the diverse spectrum of stakeholder organizations. Approximately 400 stakeholders receive the annual SWSP newsletter. Some examples of SWSP stakeholders include:

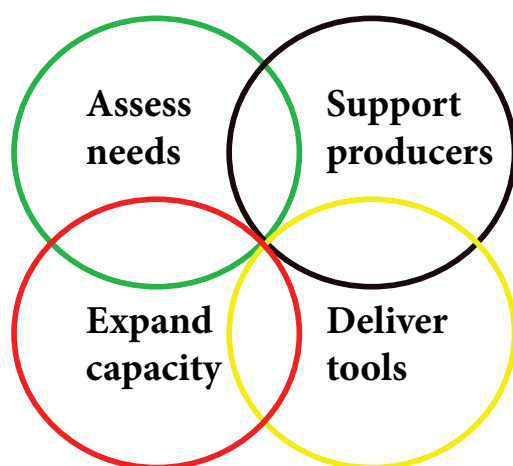
- **Coordinator** – IAE
- **Stakeholder funders** – NM BLM, USFS R3, NPS Intermountain Region, NMDOT, Native Plant Society of New Mexico, Trees Water People
- **Grower stakeholders** – Bamert Seed Company, Borderlands Restoration Network, Granite Seed Company, Fieldhouse Farm, Elk Mountain Farms, Mandy's Farm, Rio Grande Return, Pueblo of Santa Ana, Curtis and Curtis Seed Company, Southwest Seeds, Agricultural Cooperative Network, Yavapai Apache Department of Agriculture, Rio Grande Community Farm
- **Participants at Stakeholder Meetings** –USFWS, USGS Southwest Biological Science Center, NRCS, Sandia National Laboratories, NM and AZ DOT's, NM and AZ Departments of Game and Fish, NM Department of Agriculture, Soil and Water Conservation Districts, Santa Fe County Open Space, Arizona Crop Improvement, NM State Lands Department, Extension Service offices NM and AZ, NM State Penitentiary, NM State Forestry and the Energy Minerals and Natural Resources Department, Albuquerque Biopark, Ute Mountain tribe, Navajo Nation Fish and Wildlife Department, Gila River Indian Community, Pueblo of Pojoaque, New Mexico State University, Utah State University, Northern Arizona University, NM Institute of Mining & Tech, Sandia High School (Albuquerque), Borderlands Restoration, Gila Watershed Partnership AZ, The Nature Conservancy, Quivira Coalition, Stream Dynamics, Desert Botanical Garden, Flagstaff Arboretum, Tetra Tech, Ecotone, NM Land Conservancy, Southern Rockies Seed Network, Audubon NM, McDowell Sonoran Conservancy, Santa Fe Watershed Council, and private landowners.

SUBCOMMITTEES

The SWSP hosts subcommittees to address partnership needs and coordination throughout the year between stakeholder meetings. Technical Committees work on technical needs, such as the Research Committee, which identifies research gaps and shares results of studies, and the seed quality committee, which helped to initiate the PVG seed certification program. The Steering Committee develops recommendations for long-term vision and strategies, partnership governance, and funding for native seed development. This committee also provides accountability for implementation of the 5-year plan. The Steering Committee met monthly during the 2021 strategic planning process, but otherwise meets 1-4 times per year.

PURPOSE OF STRATEGY

This strategy will help guide the efforts of the Southwest Seed Partnership from 2022 through 2026. It will serve as a guiding document for IAE and internal partners to assess progress, identify next-steps, and plan work with new funding. It will also serve as an outreach document to potential partners who may want to collaborate to reach shared goals. Objectives have been prioritized (see Funding Priorities by Year) and near-term goals for 2022 have been specified. The strategic plan is a living document and will be updated as needed. A formal review of the plan and development of the strategy for the subsequent five years will take place in 2026. The four goals (listed below) and objectives will be re-evaluated when the Strategic Plan is reviewed formally.

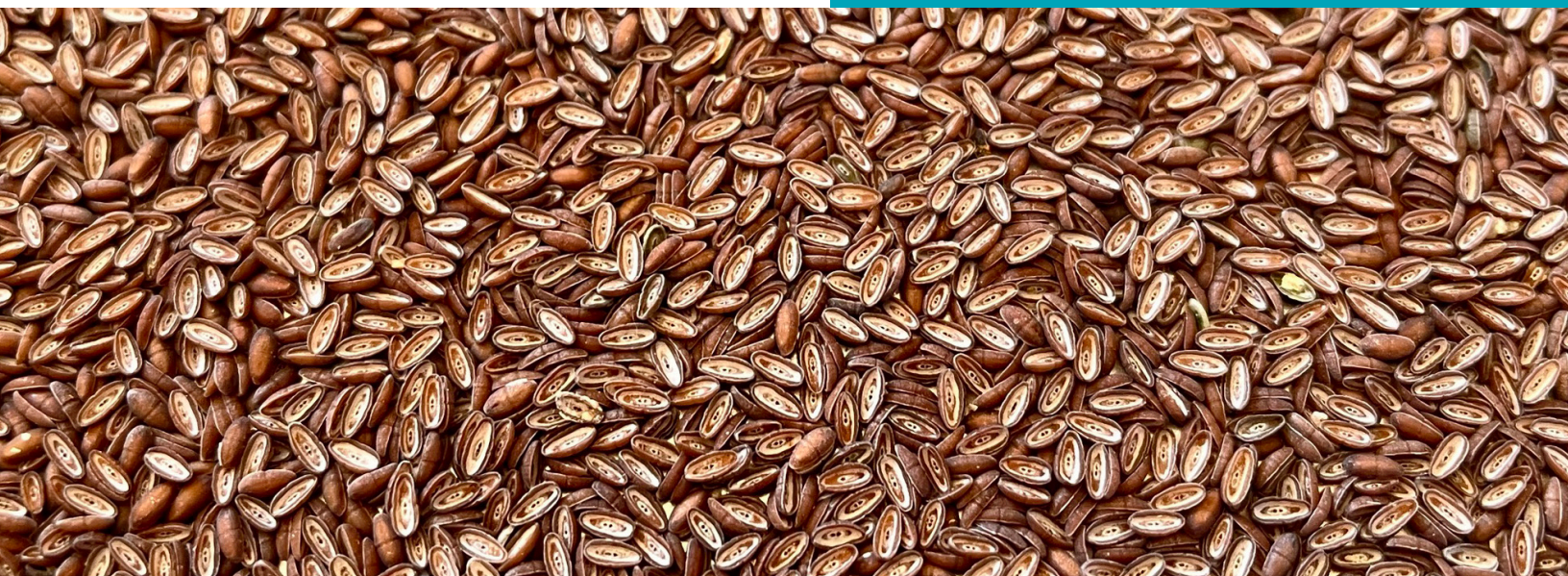


Goal 1: Assess needs and gaps in the supply & demand chain for native seeds in the Southwest

Goal 2: Expand capacity for native plant materials development across New Mexico and Arizona

Goal 3: Support farmers and nurseries growing diverse, locally sourced materials while bolstering the Southwest native seed industry

Goal 4: Deliver research-based restoration techniques and tools



FORMAT DESIGN OF THE STRATEGY

Each consecutive goal in the Southwest Seed Partnership Five-Year Strategy builds on the next. The stage is set with Goal 1, which identifies what is needed to achieve large scale advances in native seed availability in the Southwest. Then Goal 2 provides a path for building capacity to meet those needs. Goal 2 (Expand Capacity) includes developing training modules, and the plan for sharing those modules is described in Goal 4 (Deliver Tools). Goal 3 focuses on the critical plant materials production component of the strategy, providing specifics about how we will support producers and expand native seed farming. Figure 2 illustrates this progression for tasks in the Strategy associated with seed industry economics. Funding for each goal is addressed in milestone tables and a fundraising plan in a table at the end of the document.

Figure 2. Steps to Market Stability and Strategy for a Sustainable Native Seed Industry



Explanations for column headings in milestones tables for each objective:

Objective task: Short descriptor of task to be completed.

Priority: Tasks prioritized for 2022 and for 2023-2026. If a task has a priority number without year in parentheses, it is a 2022 near-term priority. If there is a year listed below priority number, that is the priority ranking from 2023-2026. Each priority list ranges from 1-3 (1 being highest priority and 3 being lower priority).

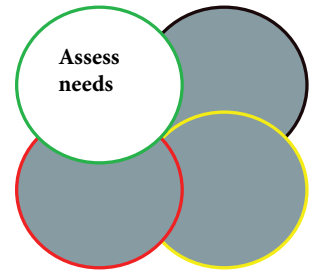
Funded By: Funding from multiple sources is necessary to meet each of the objectives in the Strategy. The “funded by” column provides what funding is currently available and what tasks are unfunded and future grant opportunities.

Lead: Organization or individual taking the lead to complete an objective task.

Measure: Metric for determining successful completion of that task.

Expected result: List of what will be accomplished by completing each task and expected result.

By date: Deadline to complete task.



GOAL 1

Assess needs and gaps in the supply & demand chain for native seeds in the Southwest

Summary: To achieve this goal, we need to understand regional priorities and which species are in demand. This information guides the essential on-the-ground tasks of collecting seeds and growing them at nurseries and farms to increase availability of regionally appropriate plant materials for restoration. Native seed and plant production in the Southwest has traditionally been led by commercial entities, such as large-scale seed companies and smaller-scale private nurseries. Following assessments, Goal 2 strives to identify which species and sources can be grown in larger volume (pool demand), leverage resources, and identify opportunities for economies of scale by connecting agencies with common needs for plant materials. Because the ultimate goal is to make seeds available to all restoration stakeholders, not just the agencies who can afford contract production, our strategy will include steps to move this locally sourced, diverse germplasm under development into commercial marketplaces. Assessments will also inform capacity building and farm expansion (Goal 2).

Objective 1: Conduct seed needs and capacity assessments

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Seed User Surveys NM & AZ	1	NM BLM (AA) USFS (MCCS)	IAE: SWSP coord	# online survey responses gathered and analyzed Wishlists published on SWSP website # of producers receiving wishlists and then growing them on speculation	Knowledge of <ul style="list-style-type: none"> Species & amts currently purchased and amt paid Species & quantities needed for upcoming projects but not commercially available Anticipated funds available for seed purchases 	July 2022
Seed User Projections	1	NM BLM (AA) USFS (MCCS)	IAE: SWSP coord	# of partners able to project seed needs 3-5 years in future	<ul style="list-style-type: none"> More partners with tools for planning Better ability to tie seed needs to associated collection & production 	Ongoing, report by December annually
Seed Vendor Survey & Interviews	1	NM BLM (AA) USFS (MCCS)	IAE: SWSP coord	# of SW producers completing seed survey # of questions answered	Better understanding of species growers willing to try, acreages possible, and cost/species	July 2022
Analyze & report survey results	1	NM BLM (AA) USFS (MCCS)	IAE: SWSP coord	Seed need statistics summarized for AZ and NM based on 1-5 years projections.	More efficient forecast planning and production that aligns with specific seed needs	November 2022
Assess farm & nursery capacity needed	1 (2023)	unfunded	Steering committee, consultant, IAE Ag Liaison	<ul style="list-style-type: none"> Farm inventory and needs assessment complete Map of current and future farm and nursery locations 	<ul style="list-style-type: none"> Improved understanding of where farms currently located and which ones suitable for SWSP production Improved planning 	2023

Assess need for shared farm equipment	1 (2023)	unfunded	Steering committee, consultant, IAE Ag Liaison	Needs assessment complete	Greater diversity of farms able to produce native seeds	2023
Prioritize SWSP equip & facility needs	1 (2023)	NM BLM (AA) USFS (MCCS)	IAE: SWSP coord & Ag Liaison	List of equipment needed	Know what is needed by when	2023

Objective 2: Develop species target lists by seed zone

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Target lists by seed zone	1	Partial funding USFS	IAE: SWSP Coord	<ul style="list-style-type: none"> Target species list approved and adopted by partners # target lists developed 	More coordinated and efficient seed section by crews	Ongoing, Annually by April
Coordinate and complete seed menu development	2	no; BLM & USGS internal funds however	IAE: NM BLM PCRCP special list	<ul style="list-style-type: none"> Online launch of seed menu website/portal # of seed menus developed 	<ul style="list-style-type: none"> Restoration planning guesswork reduced Appropriate species grown and used at given project areas Greater diversity of species used 	December 2022

Objective 3: Coordinate collaborative collection, production, restoration, and research to achieve efficiencies and economies of scale

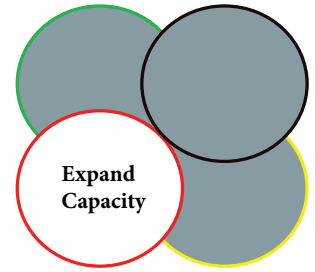
Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Connect partners with native plant materials needs and skills that align	1	Partial funding USFS	IAE: SWSP coord	# new collaborations	More efficient, coordinated, and cost effective native plant materials development	Ongoing
Shared production fields for partners with similar seed needs	2	Partial funding USFS	IAE: SWSP coord	# of jointly funded production fields from 2022-2026	Less expensive contract production costs for partners which allows for new partners to access ecologically appropriate seed for their projects	Ongoing
Shared training & collections	2	Partial funding USFS	IAE: SWSP coord	# of partners involved with SWSP seed collection training and field season planning and coordination	<ul style="list-style-type: none"> Pooled resources and more coordinated approach to native plant materials training and seed collection Inclusion of new partners into continual SWSP work 	Ongoing

Field adoption by another partner when production contract is ending	2	Partial funding USFS	IAE: SWSP coord	# of fields adopted by another agency	<ul style="list-style-type: none"> Better support for growers Protects investment by original funder Reduced cost to partner adopting field Field continues to yield seed 	Assessed annually in January
Shared successes & failures	2	Partial funding USFS	IAE: SWSP coord	R&D reports shared with production stakeholders	Dispersal of knowledge farms/nurseries and reduced waste	Assessed annually in January



GOAL 2

Expand capacity for native plant materials development across New Mexico and Arizona



Summary: Building infrastructure not only addresses equipment and facility needs, but also includes the framework for the partnership and how we communicate and work together. Multiple staff are needed to conduct this work including a Southwest Seed Partnership Coordinator, project manager, seed collection crews, plant materials technicians (for seed processing, accession building, & farm/nursery support), and a restoration-research ecologist (to develop seed menus and other restoration tools & research). Since the partnership began in 2015, SWSP has been researching farmers that might be able to grow our locally sourced diverse plant material, assessing their capacity as well as our own capacity to deliver the SWSP. Our plan needs to include strategic locations, facilities, equipment, and exploration of shared facilities with partners. It will also include species and sources, acreage, and funds targets for this production over the next five years. To work towards self-sustaining capacity for farmers, in Goal 3 we include a transition plan from contract production to growing on speculation.

Objective 1: Formalize the SWSP

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Finalize a 5-Year Strategic Plan	1	NM BLM and USFS R3	IAE and John Ross Consultant	<ul style="list-style-type: none"> Plan approved by Steering Committee Draft plan available for stakeholder review Final document complete 	<ul style="list-style-type: none"> Guide for partnership in 2022-2026 Specific objectives and subtasks detailed for 2022 and organizations responsible for completion identified 	<ul style="list-style-type: none"> December 2021 Jan-Feb 2022 March 2022
Develop a Memorandum of Understanding	1	NM BLM and USFS R3	IAE: SW Branch Director	MOU signed by partners	<ul style="list-style-type: none"> MOU reviewed, approved by Steering Committee, ready for signature 20 partners sign, including 4 federal agencies 	<ul style="list-style-type: none"> March 2022 May 2022
Establish bylaws & partner roles		NM BLM and USFS R3	Steering Committee	Bylaws and roles established	Improved understanding of roles and how the partnership operates	October 2022

Objective 2: Secure highest priority equipment and facilities needs in NM & AZ

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Purchase equipment	1	NM BLM Unfunded	IAE: Plant Materials Technician	<ul style="list-style-type: none"> Herbarium cabinet purchased Dust evac system purchased 	<ul style="list-style-type: none"> Safe storage for voucher specimens Improved seed cleaner health/safety 	January 2022 2023
Shared equipment and facilities	2	Unfunded	IAE: SW Branch Director	<ul style="list-style-type: none"> # partners engaged # facilities and equipment obtained 	<ul style="list-style-type: none"> Partners supporting increased capacity and efficiency for plant materials development in AZ & NM 	June 2022
AZ seed crew station	1	Unfunded	IAE: SW Branch Director	Facility secured and leased	More seeds collected due to reduced travel time, reduced cost and coordination needs	2024

Objective 3: Expand Production

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Increase quantity, acreage, diversity of species in production	1	Partial: USFS R3, NM BLM, NPS	IAE: SWSP Coord	Each year: 1 new SWSP annual, 1 novel species not under commercial production, 2 new SWSP forbs in production	Increased diversity of species available for purchase	ongoing
Priority species list for next year	1	NM BLM, USFS R3	IAE: SWSP Coord	# species and genotypes put into SWSP production annually	2-10 species put into production	Annually by June
Wild collect seeds, expand # species & ecoregions per production needs	1	Partial funding USFS R3, NM&AZ BLM, NPS	IAE: SWSP Coord	# species, # sources quantity of seed collected # geographic areas	Greater quantity of wild collected seeds to build genetically diverse accessions for production and for use in research and plug production	Annually April-Nov
Annual production plan	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	Plan completed for year outlining seed fields, growers, species and acreage	Guide for production each year, adjusted to budget and seed needs	Annually by February
Production contracts finalized	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	# completed contracts with growers for new species	Contracts for 2-10 species annually with contracts signed	Annually by March

Objective 4: Develop a Financial Plan addressing costs for expansion and a Sustainability Plan for SWSP germplasm to enter commercial marketplaces

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Complete 5-year budget (2022-2026)	1	2022: BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord and Branch Director	Budget reviewed and complete	Improved ability to assess needs and limitations to meeting goals	June 2022
Define partnership funding model	2 (2023)	unfunded	Paid consultant	Model defined and shared	Improved understanding of funding mechanisms for partnership & resource sharing among partners	2023
Sustainability and Transition Plan	1 (2025)	unfunded	Paid consultant	Grower advisors engaged feedback to plan # growers producing and selling SWSP germplasm on open market	Plan that meets the needs of growers. Farmers begin to grow SWSP germplasm on speculation & sell seeds on the open market at competitive costs	2025



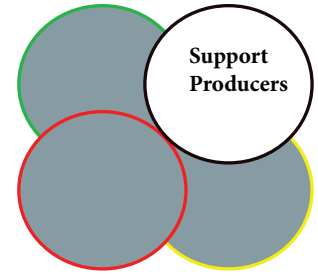
Objective 5: Establish programs, curriculum, and protocols for improved capacity in NM & AZ

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Collection training module	2	Partial funding BLM (AA, IDIQ) & USFS (MCCS)	IAE: Plant Materials Technician	Protocol produced and revised annually	Protocols responsive to new technology & needs	May 2022 (and annually)
PVG program for Arizona	2 (2023)	unfunded	IAE: Ag Liaison	Program published and tested on native seed field	Arizona farmers will have ability to certify source-identified native seed fields	2023
Restoration training modules identified	2 (2023)	unfunded	IAE: Ecologist	Restoration partner orgs with training modules identified	Modules ready to share and help stakeholders improve restoration	2023
SWSP seed handling protocols	2	2022 funding BLM (AA, IDIQ) & USFS (MCCS)	IAE: Plant Materials Technician	Written protocol complete and made available	Higher quality seeds, improved production and restoration success	December 2022
Nursery cultivation recommendations	1 (2023)	unfunded	IAE: Ag Liaison	IAE works with nursery partners to capture and publish guidelines for 5-10 species/year Literature searches on cultivation practices compiled	More nurseries able to produce native species with less waste. Nuanced recommendations through expert consultations	Starting 2023 (and annually)
Genetic integrity guidelines	2 (2024)	unfunded	Research Committee	Protocols written & updated working with researchers/geneticists	Genetic diversity maintained through production process	2024 (updated annually)



GOAL 3

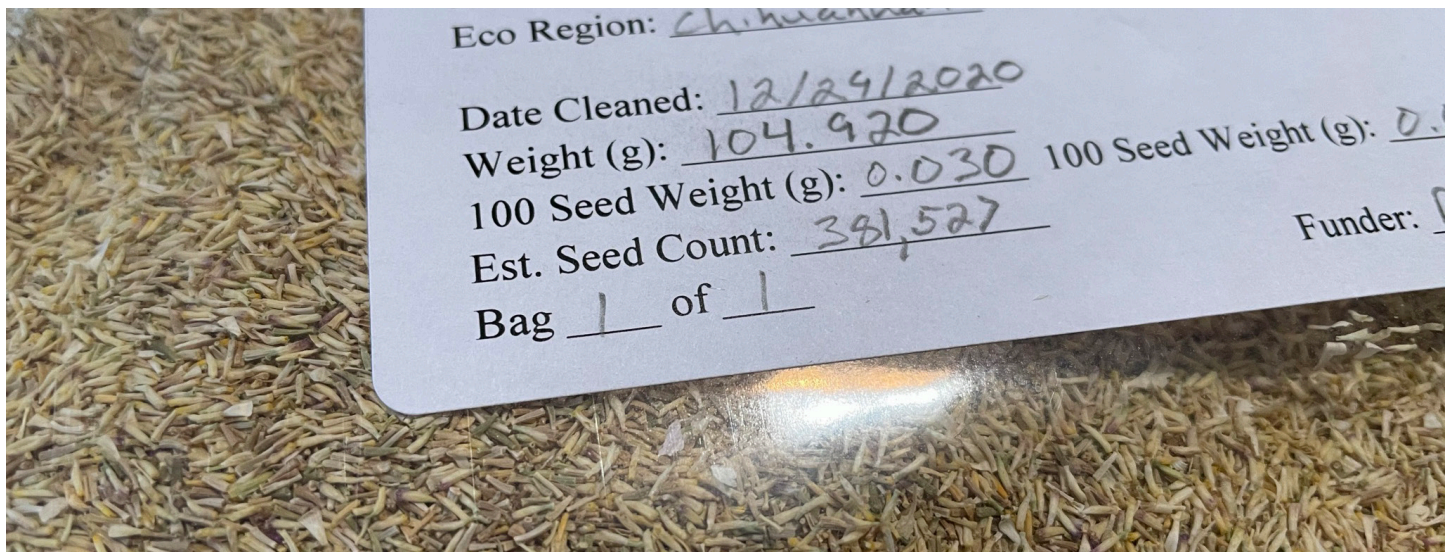
Support farmers and nurseries growing diverse, locally sourced materials while bolstering the Southwest native seed industry



Summary: To deliver the Southwest Seed Partnership we also need capable farmers and nurseries in strategic locations that closely match seed zone conditions. To date, finding experienced farmers with capacity to start native seed production in diverse locations has been a barrier to expanding our production operations. As such, it makes sense to invest in facilitating new farmers and championing farmers who are most capable of producing this germplasm. Developing smaller growers to assist with R&D, stepwise increase, and for specialty high value crops with smaller demand is still of value even though these farmers require the most financial and technical support. For large established and small new growers alike, we also need to make it worthwhile to produce SWSP germplasm by providing the starting seed, contracts to remove risk, and reliable demand for these premium crops through our outreach efforts to seed user stakeholders.

Objective 1: Provide training to new native seed farmers to grow, harvest, clean, and market novel species and sources of native seeds

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Seed production manual	3 (2023)	unfunded	IAE: Ag Liaison	Manual produced (reviewed by producers, NRCS, Extension)	Publicly available resources and guides for farmers considering native seed production. Tips on field prep, species needs, harvest tech & seed processing	2023
Partnership with Extension to support growers	2 (2023)	unfunded	IAE: Ag Liaison	Partnership established w/ Extension to provide tech support to growers of all scales	More farmers are successful in producing native seeds	2023
Native seed production workshops	2 (2023)	unfunded	IAE: Ag Liaison	# of workshops delivered in partnership w/ Extension	Increased farmer confidence in transitioning to native seed production	2023 growing season



Objective 2: Assist with capacity building and funding for new farms and nurseries (provide jumpstart contracts, equipment, & grant support)

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Assist farmers with grant applications	3 (2023)	unfunded	IAE: Ag Liaison	# funding opportunities identified; # grants applications supported by SWSP	Increased outside funding for native seed production; diversify farmer income	2023
SW Tribal plant material program	3 (2024)	unfunded	IAE: Ag Liaison	# programs	Increased capacity of local tribal plant materials programs and relationship building with SWSP	2024
Seed farming apprenticeship program	3 (2024)	unfunded	IAE: Ag Liaison	# new farmers engaged in apprenticeship	Increased workforce of farmers knowledgeable about native seed production	2024
Engage new farmers and nurseries in priority ecoregions	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: Ag Liaison	# of outreach venues # new farmer stakeholders	Production in new ecoregions previously with limited native seed availability	Annually starting December 2022

Objective 3: Share data from R&D fields (cultivation practices, cost effectiveness, and marketability)

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
R&D Metrics	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	Metrics & data management protocol developed; survey requested from SWSP growers end of year	Standardized inspection and annual report form (for SWSP farmers) will increase recording efficiency and transferability of practices	September 2022
Summary statistics	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: Ag Liaison	Report graphs and graphics completed	Summary of best practices & lessons learned in format for general public	Annually by March
Share results with stakeholders	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	Summary report compiled and shared	Improved access to information on best native seed farming practices	Annually by April

Objective 4: Increase marketplace stability by communicating projected needs & purchase commitment

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Seed Industry Market Analysis	2 (2023)	unfunded	Paid consultant (through IAE)	Market Analysis complete. # growers participating in market analysis	<ul style="list-style-type: none"> Better knowledge of how to make local, diverse seeds a feasible economic endeavor Market analysis captures farm economics across diverse scales of operation 	2023
Seed sharing meetup on Zoom	2 (2023)	unfunded	IAE: SWSP Coord	# growers attending # seed buyers attending # species sold (based on grower feedback)	<ul style="list-style-type: none"> Growers not sitting on seed and seed not losing viability Growers have a chance to showcase new species for sale 	Annually in March, starting 2023
Advance purchase or commitment	2 (2024)	unfunded	IAE: SWSP Coord	<ul style="list-style-type: none"> Mechanism developed for advance purchase # partners able participate growers saying it is working 	<ul style="list-style-type: none"> Growers able to know what to grow and sell seed ahead of harvest Guaranteed \$, possible reduced costs in advertising and storing 	2024



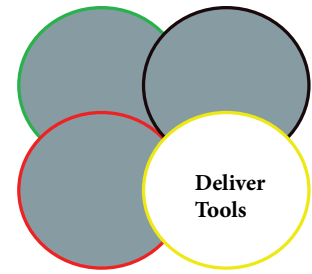
Objective 5: Connect seed buyers looking for particular species and sources with seed vendors

Objective Task	(2023) Priority	Funded by	Lead	Measure	Expected Result	By Date
Grower corner at stakeholder meetings	2	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: Ag Liaison	# of growers presenting # of sales or buyer connections	<ul style="list-style-type: none"> In person connection of buyers & sellers of seed Producers can answer questions re: seeds for sale 	Annually at stakeholder meeting
Grower corner in SWSP e-newsletter	2	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: Ag Liaison	# of growers listing new species # of sales from this venue	<ul style="list-style-type: none"> Buyers can readily see what new species are for sale Another venue helping seed sales 	Annually in November
Revive the Native Seed Network	2 (2023)	unfunded	IAE and BLM	NSN website up and running	<ul style="list-style-type: none"> Growers able to add seeds for sale using website form. Buyers can search for species, sources, or vendors based on seed zone Complete list of SW vendors with species and sources for sale ArcGIS online functionality guiding species selection via Seed Menu 	2023 2024



GOAL 4

Deliver research-based restoration techniques and tools



Summary: The arid southwest has many restoration challenges, and there is still a great deal to learn about how to restore native plant communities in drought conditions and when research is lacking and/or land managers do not have the expertise. Providing native seed tools and resources, conducting restoration studies, and providing native seed/restoration training all promote improved restoration success. Tools for improved production and cultivation are addressed in Goal 3 - Support Producers.

Objective 1: Establish internal & external communication

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Stakeholder meetings hosted annually	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	<ul style="list-style-type: none"> Number of stakeholders registered New partnerships formed after meetings 	<ul style="list-style-type: none"> Increased registration to 100 NM & AZ stakeholders meet on virtual platform 	January 2022
E-newsletters sent annually	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	<ul style="list-style-type: none"> # of subscribers Newsletter open and click rate 	<ul style="list-style-type: none"> Add 20 newsletter subscribers 20% increase open rate + click rate 	<ul style="list-style-type: none"> Annually starting 2022 2025
Social Media	3	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	# of posts and followers on social media outlets	Monthly social media posts and new followers each month	Ongoing starting 2022
Website	2	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	# of website browsers	Increased website traffic relative to previous year(s)	Annually starting 2022
				Website engagement via linked forms, volunteer and seed requests, quarterly updates	Greater engagement	Annually starting 2022

Steering committee	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	Meeting consistency, attendance, accomplishments	Meets quarterly in 2022	Feb, May, Aug, Nov 2022
Research Committee	2	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	USGS (RAMPS)	Meeting consistency, attendance, accomplishments	Meets annually and identifies native plant materials working groups as needed	April 2022
Annual report	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	Report completed annually	Members updated on goal progress and new initiatives	Annually in March starting 2022

Objective 2: Demonstrate value added using high quality native plant materials to the restoration community

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Promote use of high quality native seed	1	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	<ul style="list-style-type: none"> Presentations at stakeholder meetings, conferences, partner meetings Published articles, media stories # of SWSP collaborators helping to disseminate seed quality information through their venues Outreach materials and brochures highlighting the importance of using native seeds in restoration produced 	<ul style="list-style-type: none"> High quality native seeds become more valued within the restoration community, invest more in higher quality seeds Better support for producers of high-quality germplasm Seed quality linked to outcomes and tangible research results Outreach to new audiences Better cohesion of restoration community & native plant materials industries (seed and nursery) Increased curiosity about SWSP germplasm and its value 	Ongoing
Track seeds from collection through restoration outplanting	2	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: SWSP Coord	Database that tracks all phases of plant materials development: collection > testing > storage > production > restoration	<ul style="list-style-type: none"> Better information about effect of source site (and local genotypes) on restoration success and reduced likelihood of inadvertent collections at restoration sites Better information about seeds for sale (where they were collected and produced, how they were grown) 	June 2022, refine annually

Objective 3: Engage formal and collaborative research to address our most pressing native seed issues

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Identify restoration research gaps in the SW	2	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: Ecologist	SWSP Research Committee meets 1x/year or more. Research gaps posted on SWSP website and highlights announced at stakeholder meetings	<ul style="list-style-type: none"> List of current research projects underway and new project priorities (produced by research committee) for genetics, ecology, horticulture, etc. Researchers, grad students, and funders know where to look for these ideas More applied research for SWSP 	April 2022 and annually
Collaborate on seed research	2	2022 funding BLM (AA, IDIQ) & USFS (MCCS) 2023-26: unfunded	IAE: Ecologist	# collaborative research projects per year	<ul style="list-style-type: none"> Better cohesion of the restoration community Reduced duplication and increased knowledge sharing 	Ongoing
Showcase research partners	3	unfunded	IAE: SWSP Coord	Partner research showcased at Stakeholder meetings, in E-newsletter, and conferences	Better cohesion of the restoration community	Ongoing
Restoration demo workshops	2 (2023)	unfunded	IAE: Ecologist	# workshops: restoration, best management practices, species selection, seed handling, genetics/seed zones	<ul style="list-style-type: none"> Improved accessibility of research On the ground demonstration of best practices based on research 	Every other year starting 2023

Objective 4: Share native plant materials tools

Objective Task	Priority	Funded by	Lead	Measure	Expected Result	By Date
Seed menus for ecosites	1 (2023)	unfunded	BLM, USGS, IAE, AZ Extension	Seed menu tool shared with stakeholders	More informed species selection process for seed users to match species with site	2023
Predictive models	1 (2024)	Funding unknown	USFS	Predictive fire models shared with SW Forests and other land managers	Seeds are ready in the event of a catastrophic event	2024
Accession building guidelines published	2	BLM (AA, IDIQ) & USFS (MCCS)	IAE: SWSP Coord	Lit review complete to reassess current SWSP accession building guidelines and share with partners	<ul style="list-style-type: none"> Protect genetic integrity and promote genetic diversity Updated SWSP accession building protocols based on best available science 	December 2022
Standardized effectiveness monitoring	2 (2024)	unfunded	IAE: Conservation Research Director	Standard effectiveness monitoring protocol (fields and rest sites) developed in collaboration with partners. Protocols shared with SWSP partners. Growers receive new protocols along with seed	<ul style="list-style-type: none"> Improved comparisons across restoration sites and simplified process Knowledge of what works and ability to adjust farm and restoration practices accordingly 	2024



2022 WORK PLAN

January - March 2022: The SWSP will focus on Goals 1 and 2 during the first quarter of 2022. The first task will be completing the Stakeholder Meeting during IAE's Native Plant Materials Virtual Conference. Major tasks include developing the questions and audience for the seed user and vendor surveys. This will happen in collaboration with the steering committee, and the surveys will be established in the March 2022 steering committee meeting. This meeting will also include the final adoption of the MOU by the steering committee member agencies. Additionally, the SWSP will be working with partners on finalizing target species lists for 2022 field season seed collections. The annual seed production plan for 2022 will be finalized with funders and seed producers. Ongoing work on communication and outreach will continue. Fundraising will be targeted to highest priority tasks and will include an application to a local Foundation and expanded tasks and funding on existing federal agreements. The expected results from this year will allow the SWSP the expanded capacity needed to meet the goals and objectives in 2023-2025.

April - June 2022: A major task of the second quarter of 2022 will be the delivery of the seed vendor and user surveys. This period will also be busy with hiring, training, and coordinating seed collection crews. MOU adoption by partners will continue and should be finalized during the summer. Another major task will be the development of the 5-year budget. Early summer will include planting of new seed fields and finalizing contract extensions with seed producers. The SWSP will begin collaborating with partners to brainstorm a proposal for a Conservation Innovation Grant (CIG). Additional fundraising will be targeted to hiring needed agriculture support staff in 2023.

July- September 2022: The third quarter of the year will include the analysis and results sharing of the seed user surveys. These will be shared with stakeholders in the SWSP newsletter. Wild seed collection and coordination with farmers on seed production fields will continue. The SWSP bylaws will be developed and adopted by the steering committee. Fundraising goals during this period will consist of working with partners to start new 3-5 year agreements with federal agencies including the BLM and USFS. Project planning and budgeting for new seed collection and production goals will be included in the proposals.

October - December 2022: The last quarter of the year will wrap up seed collection and production efforts for the year. Accession building guidelines and seed handling protocols will be developed and shared. Outreach including the newsletter and planning for the 2023 stakeholder meeting will take place. The 2023 workplan will be finalized and will outline the grants and timeline for SWSP fundraising for the next year.



PRIORITY 1 TASKS FOR FUNDING

2022	2023-2026
<p>1.1.A - Seed User Survey 1.1.B - Seed User Seed Projections 1.1.C - Seed Vendor Survey 1.1.D - Analyze and report survey results 1.2.A - Target Lists 1.3.A - Connect partners 2.1.A - 5-Year Strategic Plan finalized 2.1.B - MOU 2.2.A - Purchase equip/facilities (dust evac) 2.2.C - Crew station AZ 2.3.A - Increase quantity, ac's, diversity in production 2.3.B - Priority species list for next year 2.3.C - Collect seeds, expand # species & eco. 2.3.D - Production contracts finalized each year 2.3.E - Final production plan for the year 2.4.A - Complete 5-year budget 2.5.A - Collection training module 2.5.D - SWSP seed handling protocols 3.2.D - Engage new farmers 3.3.A - R&D metrics (from farmers) 3.3.B - Summary statistics 3.3.C - Share results with stakeholders 4.1.A - Stakeholder meetings 4.1.B - Newsletter 4.1.D - Committee meetings (steering) 4.1.F - Annual report 4.2.A - Promote use of high-quality native seed</p>	<p>1.1.E - Assess farm/nursery capacity needs 1.1.G - Prioritize SWSP equip. & facility needs 1.2.A - Target Lists 1.3.A - Connect partners 2.2.C - Crew station AZ 2.3.A - Increase quantity, acreages, diversity in production 2.3.B - Priority species list for next year 2.3.C - Collect seeds, expand # species & eco 2.3.D - Production contracts finalized each year 2.3.E - Final production plan for the year 2.4.C - Sustainability and transition plan 2.5.E - Nursery cultivation recommendations 2.5.A - Collection training module 2.5.D - SWSP seed handling protocols 3.1.A - Seed production manual 3.2.D - Engage new farmers in priority ecoregions 3.3.A - R&D metrics (from farmers) 3.3.B - Summary statistics 3.3.C - Share results with stakeholders 4.1.A - Stakeholder meetings 4.1.B - Newsletter 4.1.D - Committee meetings (steering) 4.1.F - Annual report 4.2.A - Promote use of high-quality native seed 4.4.A - Seed Menus for ecosites 4.4.B - Predictive models</p>

Key: 1.1.A = Goal 1, Objective 1, Milestone A. Goals are 1. Assess Needs; 2. Expand Capacity; 3. Support Producers; 4. Deliver Tools. Color codes: **Funded**; Partially funded; **Unfunded**



PRELIMINARY FUNDRAISING PLAN

The bulk of the fundraising for the Partnership has been led by IAE; however, agency collaborators (i.e., BLM, USFS, NPS) have been instrumental to securing agency funding through Financial Agreements which need to be renewed every 3-5 years. Funds awarded to IAE are frequently allocated to other NGO's, private contractors, and growers to support a diverse restoration economy and expanded capacity and reach of the SWSP. More than half of the funds received are typically allocated to production contracts. Other mechanisms for the partnership to receive funding include contracts, such as federal IDIQ contracts and state level contracts (i.e., DOT, Game and Fish). IAE often partners with other public and NGO organizations on grant applications to accomplish larger/regional scale objectives. The highest priority tasks for continued, new, and secured funding are as follows:

1. Continued funding (funding sources IAE has applied to before and expects to continue into future years):
 - a. Expand Production (Goal 2, Objective 3) including expanding acreage and species diversity, target/priority species lists, expanding wild collections, and producing an annual production plan and securing production contracts. Other high priorities for continued funding include farmer engagement and shared research and development production results (Goal 3, Objectives 2 & 3), secure equipment and facilities (Goal 2, Objective 2), hosting stakeholder and steering committee meetings and publishing newsletters/reports and promoting the use of high-quality native seeds (Goal 4, Objectives 1 & 2). These are all continuous program needs requiring sustained funding.
2. New funding (funding opportunities IAE has not applied to before):
 - a. Farm and nursery capacity assessments (Goal 1, Objective 1), seed menus for ecosites and predictive models (Goal 4, Objective 4), and nursery cultivation recommendations (Goal 2, Objective 5). These are short term project goals requiring one-time funding needs.
3. Secured funding (funding in hand at time of publishing summer 2022):
 - a. Conduct Seed Need & Capacity Assessments (Objective 1, Goal 1); Financial Plan and Completing the 5 Year Budget (Goal 2, Objective 4); and formalizing the SWSP with the 5-year strategic plan and MOU (Goal 2, Objective 1).



Table 1. Potential partners/funders and goals they would support (as indicated by shaded cell). Asterix (*) indicates partner is currently or has previously provided funding for tasks associated with the goal. Several partners (including NM BLM, USFS R3, NPS, NMDOT) have pledged continued commitment to the Southwest Seed Partnership goals and objectives.

Funding Opportunity	Potential Collaborators	Goal 1 Assess Needs	Goal 2 Expand Capacity	Goal 3 Support Producers	Goal 4 Deliver Tools
NRCS Conservation Innovation Grants (CIG) Federal and State level	AZ TNC; USGS (RAMPS)				
NM Bureau of Land Management		*	*	*	*
AZ Bureau of Land Management			*		
US Forest Service: Regional		*	*	*	
US Forest Service: Forest and resource area (hydrology, wildlife, recreation, etc)	Region 3 Forests		*	*	
US Forest Service: BAER					
US Forest Service: National Forest Foundation (NFF)	USGS, Forests, NAU				
US Forest Service: Collaborative Forest Restoration Program (CFRP)					
National Park Service		*	*		*
New Mexico Department of Transportation			*		*
Arizona Department of Transportation					
Walton Foundation					
Thornburg					
Agriculture & Food Research Initiative (USDA NIFA)	NAU, USGS, NRCS, NMSU				*
Farming Grants (example NM Grant Watch)					
State Agriculture Department NM & AZ					
US Fish & Wildlife Service: Partners for Fish & Wildlife					
US Fish & Wildlife Service: Refuges					
US Fish & Wildlife Service: BAER					
AZ & NM Department of Fish & Wildlife (State Wildlife grants)					
NM State Forestry NM	Watershed Alliances; County flood control, SWCD's		*		
AZ Department of Forestry and Fire Management (AZ DFFM)					
National Parks Trust					*
AZ and NM Native Plant Society grants			*	*	*
Youth Conservation Corps grants (state)					
National Science Foundation					
Bureau of Indian Affairs					
Trees Water People					
Agriculture Company donations					
Science for People and Nature Grant (SNAPP)					