



Rights-of-Way as Pollinator Habitat Leadership Roundtable Summary Report

Project Partners:

**EOG Resources, Inc
National Fish and Wildlife Foundation
Still Water Foundation**

Table of Contents

The Importance of Pollinator Habitat	3
Why Native Pollinator Habitat?	3
Landowner Engagement	4
Engaging Landowners	4
Targeting Landowners and Activities for Success	5
Hurdles to Landowner Engagement	5
Incentives	6
Possible New Approaches	6
Native Habitat Restoration/Creation	8
Seed Supply and Demand	8
Invasive Species	8
Best Management Practices	9
Challenges for Native Pollinator Creation	10
Possible New Approaches	10
Changes to Standard Operating Procedures	11
Roundtable Recommendations in Action	11

Rights-of-Way as Pollinator Habitat Leadership Roundtable Summary Report

This report is a summary of notes and discussion by participants during the Rights-of-way as pollinator habitat leadership roundtable hosted by Texan by Nature, EOG Resources, Still Water Foundation, and National Fish and Wildlife Foundation. The content herein is a compilation of discussions by those in attendance and, in its entirety, do not reflect the sole opinions of the sponsoring organizations. Its purpose is to inform EOG's pollinator project and spur ideas into action.

The Importance of Native Pollinator Habitat

Native grasslands were once a major part of the landscape of Texas. Unfortunately, most of these natural prairies have disappeared over time and have been replaced with a mix of non-native grasses and forbs. These grasslands still support common species such as white-tailed deer and Rio Grande wild turkey, however, other native wildlife like bobwhite quail and Texas horned lizard have seen significant declines. Pollinators, such as the monarch butterfly, have also seen drastic population declines with this loss of native habitat. Monarchs and pollinators need much of the same native habitat as other wildlife to thrive. As these habitats have dwindled, so have monarch numbers – a 90 percent overall decrease in population from just two decades ago. The declining monarch population parallels other declining pollinator populations, which in turn impacts human food systems. Pollinators are a major part of a natural food web, pollinating over 75% of our crops. Additionally, insects form the foundation of a balanced ecosystem that sustains higher forms of wildlife. Providing enough habitat throughout the migratory pathway is essential to maintaining and improving conditions for the unique and beautiful monarch as well as numerous other species of wildlife.

Why Native Pollinator Habitat?

Restoring a diverse habitat of native grasses, forbs, and wildflowers will increase productivity and the wildlife habitat potential of the land. Native grasses, when compared to introduced grasses, are more drought tolerant, improve soil health, and require less maintenance once established. Native grasses have adapted to the poor soils common to many parts of the state yet provide lush, high protein forage under normal rainfall without the need for expensive fertilizers. Over the years, many non-native grasses have been planted in an attempt to enhance grazing for livestock and stabilize soils along roadsides and other disturbed areas. These invasive grasses have degraded wildlife habitat on millions of acres in Texas. These grasses tend to form extensive, solid stands with no forbs, flowering plants, or space for quail and other wildlife to survive. Restoring native grasses and forbs within freshly reclaimed areas has the potential to replicate the historical habitat that is lacking over much of the state.

Landowner Engagement

Definition: the act of working closely with landowners to inform them of issues, listen to their needs and experiences, and identify common interests to develop win/win solutions on their land pertaining to ROWs.

Engaging Landowners

Engaging private landowners is a key component to accomplishing native habitat creation on rights-of-way and should be a primary focus. Recognizing that different parts of the state have different landowners, with different priorities, will help determine an appropriate approach. It is important to recognize the mindset of the producer and understand they have a wide spectrum of opinions and views. Although many landowners are conservation minded, they have different views and perspectives on what that looks like. Some may value wildlife conservation efforts, others may focus on soil productivity, while others are content with the land in its current form.

In working with landowners, the first step, and most important, is to build a relationship of trust. These relationships take time and effort and are formed on the basis of respect for them individually and for their property; as well as an understanding of their overall land needs and goals. To implement long-term habitat projects, a substantial amount of time must be spent building a comfort level with the landowner. These relationships not only occur through one-on-one interaction but should also take place at the community level as well.

Native habitat creation is complex and takes time and effort. A trustworthy partner throughout the process is critical for a landowner to stay invested. A common issue when engaging landowners is uncertainty or even fear. Many times, they are asked to participate in an effort they have very little knowledge about and may even feel like it's a bit of an imposition on their day-to-day activities. Often, they are approached unsolicited and are asked to engage in a conversation without full understanding. It's important to:

- educate them on the issue/effort (this includes countering misinformation)
- identify why the effort is valuable
- engage them as soon as possible
- understand their recreation or business interests
- compromise and come from a place of negotiation
- quantify positive impact to wildlife—a holistic ecosystem approach that shows them they are restoring the system not just for one species, but all those that use the same habitat
- make it relevant to what they care about
- empower them to make a decision that works within their goals
- help them see the solution (it may be something they haven't thought of before), and
- provide them resources to accomplish it

When communicating with landowners, you need to determine what they are interested in. Then work for a solution the keeps their interest in mind and creates a win-win situation. Creating native habitat adds value to their land. We must begin to engage the landowner by broadening their perspectives of conservation to the ecosystem level and let them know their efforts add value and increase marketability of their land.

Targeting Landowners and Activities for Success

Identifying key landowners willing to participate in native habitat creation is the first step. Many are already participating in wildlife programs and should be a primary audience. Activities that engage landowners, and oftentimes, produce the greatest success include, but are not limited to:

- **Workshops/educational programs** show landowners there is value to native habitat. Cost effective ideas should be discussed regarding native seeding, etc. These workshops are especially effective if they can be tied to possible financial incentives.
- **Outreach/presentations** to volunteer organizations that work with landowners, such as Master Naturalists, Native Plant Society of Texas, and beekeepers (this is not a comprehensive list), are a good way to find landowners who are already interested in conservation.
- **Tax valuation for wildlife habitat workshops** are an excellent starting point to engage landowners in other workshops or projects. This also helps develop relationships with biologists who can help guide them through the process.
- **Funding sources for conservation** that are available to landowners can jumpstart their interest in engaging in conservation. Examples include state/federal programs, National Fish and Wildlife Foundation grants, etc. (The Northeast Texas Conservation Delivery Network is an example of a conservation partnership that works to stay on top of what is regionally available)
- **Testimonials** from one landowner to another will create a ripple effect for conservation
- **Tours/field days** engage landowners with examples of success

Hurdles to Landowner Engagement

Some of the hurdles that impact landowner engagement:

- **Cost/Benefit**—Conservation efforts come with a cost, and some landowners may not be able to afford it. Additionally, many landowners are business leaders that need an investment to have a positive return. Otherwise it can be perceived as an expensive failure.
- **Species of Concern**—Creating habitat for a species that may be listed as an endangered species may instill apprehension about increased regulation.
- **Government Compliance**—There may be a reluctance to participate in government programs due to fear of strict compliance to guidelines with strings attached.
- **Perception of Complexity**—Conservation efforts can be perceived as too difficult to deal with, imposing on a landowner's day-to-day activity. The required management and maintenance after seeding can be a long-term obligation and more than what a landowner can commit to.
- **Misconceptions**—Outdated or inaccurate information can lead to hesitation and is hard to overcome. An example includes milkweed being bad for livestock. Education focused on reversing misconceptions/importance of conservation is lacking.
- **Unknown Interests**—Identifying landowner's interests, such as quail, deer, turkey, etc. is sometime a key component to engaging them in conservation. Identifying these interests can sometime be difficult.

Incentives

Incentives are good way to encourage habitat creation. There are many different forms depending upon who the incentive is intended for and what the land management goals are.

Incentives for Industry:

- Public perception—Excellent form of PR for companies/creates good company image
- Regulation—which could be reduced under certain incentive programs.
- Candidate Conservation Agreement with Assurances (CCAA)—provides protection and could incentive companies to take a proactive approach to species conservation
- Stock price for a company's shareholders interested in conservation.
- Recognition from conservation organizations (ties back to good PR)

These incentives may be more feasible for larger operators. There is a need to determine how to approach and involve smaller operators as well.

Incentive for Landowners:

- Financial Incentives (should be streamlined)
- Wildlife tax valuations
- Cost share programs; examples:
 - State: TPWD's Landowner Incentive Program
 - Federal: US Fish and Wildlife's Partners for Fish and Wildlife Program
 - Non-governmental Organization: Oaks and Prairies Joint Venture —Grassland Restoration Incentive Program
- Peer to peer collaboration
- Improved wildlife on their land (ex. larger-antlered deer, more quail)
- Recognition and Award Programs
 - Companies highlight what their landowners are doing that is good/successful
 - Lone Star Land Stewards (TPWD), Outstanding Rangeland Stewardship (Texas Section Society for Range Management), Land Stewardship (Texas Chapter Wildlife Society)
- Support and technical guidance
 - Many landowners need guidance. Government organizations and private companies offer trained biologists to do ecological assessments and prepare comprehensive management plans beyond the ROW.

Possible New Approaches

Overcoming these hurdles will require creative thinking and innovative solutions for landowner engagement. These will build upon, or could work in conjunction with, current activities for success.

- A menu approach or process of check boxes would allow landowners to provide input to what the conservation/habitat creation looks like on their land. This has the potential to create customized solutions that would benefit the ecosystem as a whole.
- Create regionally specific information sheets for landowners. This would simplify the process, making it easier for the landowners to find information specific to their property.

These sheets would include a “database” of experts available to the landowner, as well as the industry partner, and overarching best management practices to follow.

- Educate surface use attorneys on the importance of native habitat creation in the preparation of surface use agreements (SUAs) that include specific native revegetation plans, expert contacts, seed specifications, and other information for the right-of-way. Almost half of all landowners take their first offer without negotiating or asking for anything from the ROW company, especially if they are eager to get damage payments. Through the attorneys, landowners can understand the importance of an SUAs. Because of changes in drilling and production technology, SUAs should be updated, organic, and evolve. Attorneys can stay abreast of new information through landowner interest groups, the Texas Mineral Owners Association (statewide meeting every 2 years), the state bar, and other interest groups such as Texas Wildlife Association, or through flier/newsletter distribution.
- Educate ecologists and biologists assisting with conservation efforts on how to work with and understand surface use agreements.
- Change terminology to change perception for both companies and landowners that make conservation an asset not an issue
 - Make metric ‘restoring native plant communities’ not ‘using native seed’
 - Make metric ‘habitat creation’ or ‘habitat enhancement’ not ‘habitat restoration’
- Quantify how much habitat (monarchs/other species) is needed from ROWs. Quantify the positive impact to wildlife/game animals to encourage landowners to be part of an overall goal for a specific purpose.

Native Habitat Restoration/Creation

Definition: the re-establishment of native plant materials on disturbed lands that are beneficial to wildlife and pollinators.

When talking about native habitat creation, the end point is always restored land NOT just planting native seed. Success is built on a science-based approach to planting. It a process, not a project, that requires a plan. Full establishment of native habitat can sometime take 3-5 years. Factors for success include, but aren't limited to:

- Develop a plan before you start—weather influences success but drought can be overcome with good planning.
- Take grazing into consideration and include it in the plan, and plan everything but the weather
- Use an ecoregion specific, diverse, and high-quality seed mix
- Make sure planting is done correctly, with proper equipment and experienced contractors
- Monitor progress post planting
- Plant with seasonality and spatial heterogeneity in mind

Seed Supply and Demand

Native seeds are a local niche market and make up a small percentage of overall seed sales for producers. Because of that, seed supply and demand becomes a topic of concern for native habitat restoration. Seed is needed on hand to drive demand—demand is needed to drive seed production. Without consistent demand, the production of large volumes of native seed becomes un-feasible for producers. The market, thus far, has not shown large scale potential, which means it will likely require a multiple market approach:

- Increased private landowner demand (both small and large landowners); and
- An increased demand/financial commitment by multiple industries, agencies, and conservation organizations

Other thoughts for spurring supply and demand are to:

- Require native seed in SUAs.
- Ensure that ROW companies are providing a native seed option for landowners.
- Identify other markets for seed within the industry outside of the right-of-way—since the ebbs and flows in production do not produce consistent demand.
- Set purchase minimums for industry (seed for 5,000 – 10,000 acres gets the attention of seed companies)
- Develop contracts for long-term purchase guarantees

Invasive Species

Encroachment of invasive species is unavoidable when planting natives. Invasives may not only be prevalent in the existing soil but can also “sneak” into the native seed mixes themselves. Practices that provide increased resiliency and the land's ability to combat invasives include, but are not limited to:

- Create wind-block rows to catch seeds blowing in

- Spray after every rain to control unwanted grasses
- “Bale” planting (using hay to protect seeds and seedlings after planting)
- Prescribed burning
- Use high diversity of species in seed mix
- Minimize disturbance to the land
- Keep cattle off for a period-of-time (1-2 years) and do not overstock after cattle are let back on

Best Management Practices

To maximize success, best management practices (BMPs) must be utilized. BMPs do not apply to planting only but begin with the purchase of seed. When determining seed mix, you should:

- Use seed that is native to the ecoregion*
- Use site-specific seed—seed collected or developed for local soil and rainfall conditions.*
- Standardize your seed mix specs to include what is readily available from local producers
- Seed mixes that benefit monarchs and pollinators should be ½ native grasses mixed with ½ forbs

It is most efficient to pre-order your seed. This gives seed providers lead time. If possible, place an annual order. Seed companies will store purchased seed. The length of time is dependent upon the shelf life of the various species included in the seed mix.

Prior to planting, it is important to redistribute the top soil and create a good firm seedbed prior to planting. In some cases, a cover crop is used. Others recommend an erosion mat in place of cover crop.

Equipment needs for planting native seeds include a no till seed drill with modifications made to accommodate the varying size and texture of seeds within the mix. It is most efficient to use contractors with this equipment or lease the equipment for those who are experienced.

Protecting native pollinator seedlings from cattle grazing is critical for survival during establishment. If livestock cannot be deferred to other areas, fencing is needed to protect plantings.

Maintenance and monitoring are important. Monitoring points within the area will help determine what has been successful and allow for modifications to be made over time. It is a good idea to develop a baseline survey of conditions prior to starting the project.

To better implement best management practices, develop a concise guide for contractors, operators, and all personnel involved in the native habitat creation. This guide should:

- include policies and procedures for native habitat creation on rights-of-ways
- provide knowledge to operators so they can make decisions in the field

* Native grass, pollinator specs, and seed supply for two-thirds of Texas are available now and being used by TXDOT

Challenges for Native Pollinator Creation

Native pollinator habitat creation is challenging based on biological and environmental factors. In addition, there are socio-economic factors that further complicate the challenge:

- Determining what will incentivize companies to go beyond “bare minimum” when restoring the ROW can be a challenge. Balancing the landowner restoration goals, social capital for stakeholders, specific ecosystem services, and quantifiable (\$\$) metrics is difficult.
- Many contractors’ primary work is not native habitat restoration and are unfamiliar with the modifications needed when working with native seed. They sometime do not have the specialized equipment that is needed. It is not sustainable to implement if there is limited demand for the work. Additionally, some subcontractors are not aware of the latest habitat restoration trends and are more inclined to use other, lower costs techniques to finish the job and generate revenue. Finding contractors with the expertise and equipment to accommodate the planting can be a challenge.
- Cost—Native pollinator and grass seed will add cost to the seed mix. A decision on who bears that cost must be made. Improving the success rate/methodology may drive down the cost some.

In addition, reclamation specialists have been known to quote 4-5x costs for planting over non-native contractors. With growth in the market, competition may help drive prices down. Costs can also be higher for oil and gas subcontractors because of all the additional requirements.

Possible New Approaches

Much of the discussion around successful native habitat creation centered around the availability of contractors with the experience and equipment needed for planting native seed and what might incentivize contractors to offer natives as a standard service. A possible approach might be to mimic the Texas Pro Logger Program used by the timber industry. Loggers gain the certification through education and a commitment to follow best management practices. Lumber companies seek out loggers who hold the certification. Developing a similar certification program for the seeding contractors who plant native, follow best management practices for planting native, and hold the proper equipment, could incentivize contractors through increased demand for work.

Changes to Standard Operating Procedures

In order to include native habitat creation as part of the right-of-way process and better engage landowners, some standard operating procedures will have to be modified or added:

- Maintenance and monitoring must be added to the native habitat process. This could possibly be achieved through a partnership with external agencies or citizen science groups
- Industry will need to ensure hired subcontractors are willing, and able, to plant native habitat and be willing to adhere to best management practices standards.
- Industry partners will need to work to develop turnkey solutions for landowners that include guidance, habitat creation with appropriate seed, contractors, maintenance, and monitoring—an all-encompassing plan will benefit overwhelmed landowners. They must train their personnel to be salesman.
- Industry must identify the correct parties internally to initiate change for native pollinator habitat on rights-of-way. They must reach beyond middle management and get interest from decision makers within the company to implement changes to standard operating procedures.

Note: The following section does not contain notes and discussion from the leadership roundtable. It is summary of actions implemented from the information gained in the summary report.

Roundtable Recommendations in Action

The information gained at the leadership roundtable is directly impacting the implementation of EOG's pollinator project. Recommendations from partners, industry leaders, and landowners are being put into action and will enhance the overall impact of the project.

- EOG is using recommended best management practices, experienced contractors with the appropriate equipment, and locally sourced diverse seed mixes.
- A landowner information handout was developed to educate landowners on the importance of native pollinator habitat. EOG right-of-way agents are currently using this handout to inform landowners.
- Landowner and industry perceptions are key—landowners are now being approached with the idea of “creating” habitat; not restoring it, thus highlighting the positive perception of creation.
- Conversations with attorneys specializing in the development of surface-use attorneys have been initiated. This will ensure best management practices for creating native pollinator habitat are incorporated into agreements from the onset.
- Right-of-way agents have discussed using initial habitat creation successes as examples to showcase native pollinator habitat creation to potential future landowners.