



Photo by Gozha Net

WORKING LANDS PROGRAM FRAMEWORK

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ABOUT DELTA INSTITUTE

Established in 1998, Delta Institute is a Chicago-based nonprofit organization that collaborates with communities to solve complex environmental challenges across the Midwest. Delta Institute's Land Stewardship initiative seeks to increase the capacity of landowners — whether public or private — to better plan and enact land management practices. Over 100 practitioners, including farmers, land trusts, NGOs and local/state/federal government agencies have used tools and models that the Land Stewardship initiative has developed or leveraged to improve environmental outcomes in the Midwest.

Visit online at www.delta-institute.org.

The work upon which this publication is based would not have been possible without the generous support of Grand Victoria Foundation. Grand Victoria Foundation believes in a strong, livable, and equitable Illinois where every resident has an opportunity to thrive. The project team would like to thank them for their continued leadership in the conservation space in Illinois and for supporting practitioners working to maintain the high value ecosystems in the state.

Stewardship of natural and working landscapes is critical to rebuild soil health, improve water quality, and mitigate climate change impacts. The projects in Delta's Landscapes program area work to ensure that we can conserve our natural resources by supporting and building on each other. As we work with conservation land trusts to develop a working lands program framework outlined in this guide, we are leveraging findings from other projects and adapting them as tools for the audience of this report as well.

This builds upon Delta's previous efforts, including developing conservation [leasing framework](#) and [templates](#), materials that are critical in operationalizing conservation land management principles. Delta has also included a [guide to soil health testing](#) as a resource for land managers establishing a working lands program. Finally, in addition to the soil health testing protocol, please review and use Delta's [evaluation framework and data tracking model](#) – which are key components of any successful conservation program.

Please contact us at info@delta-institute.org for more information on any of these resources.

DISCLAIMER

This document and the tools provided aim to be action oriented and to provide the most current, correct, and clear information possible, but some information may have changed since publication. We encourage practitioners to reach out to us with questions, corrections, or to discuss implementation challenges.

This publication is meant as a tool to implement conservation planning and practices on leased land. Many conservation lease considerations described in this guide are accompanied by suggested considerations and/or sample lease provisions to show how they might be incorporated into a lease. No part of this guide, however, should be viewed as legal advice. There is no substitute for seeking the legal advice of an experienced attorney.

FRAMEWORK PURPOSE

This document outlines components needed to establish a working lands program for conservation land trusts. It focuses on the processes needed to develop a program and provides helpful tools and guidance to do so. Each organization embarking on this path will need to make decisions about specific parameters and components of the program and what works for them in their context and geography. The sections that follow detail the key components needed to set up an effective working lands program; describe the value of such programs; and provide examples, templates, and supporting analysis to help organizations decide what processes work for them.

This guide is intended for organizations that are interested in maintaining farmland as a revenue source while managing that land using regenerative agriculture practices. Regenerative agriculture refers to a system that integrates farming practices using a phased approach to maximize soil health, water quality, habitat benefits and minimize risk. Such practices include minimizing soil disturbance, keeping the soil covered, diversifying crops, and integrating livestock.

A working lands program can also build collaborative and synergistic relationships between the conservation and agricultural communities in Illinois and beyond. Many farmers have a land stewardship ethic and implement conservation practices on the land they farm. It is important to acknowledge this dynamic and leverage the existing wealth of experience and agronomic knowledge when establishing a program like this.

This document does not delve into economic drivers and systemic issues preventing transition to regenerate agriculture that also need to be addressed to make such programs more appealing and easier to adopt.

Program Purpose

A nonprofit institution that owns and protects land for conservation purposes, i.e. a conservation land trust, is responsible for maintaining the conservation values on the land it owns. Conservation land trusts acquire land to achieve a variety of conservation outcomes, including public recreational access, plant and wildlife habitat protection, scenic protection, open space protection, and historic preservation. The primary goal for most conservation land trusts in Illinois is most often to protect and restore natural habitat. When Illinois conservation land trusts do acquire agricultural land and those lands are kept in agricultural production (i.e., not restored to habitat), that agricultural land is often farmed using conventional farming practices. This can severely degrade the land's soil and water resources. Adopting a working lands program can help protect the soil and water resources on farms owned by conservation land trusts, help restore degraded soil and water resources, and provide an income for the conservation land trust.

Actively managing these lands to prevent the degradation of the natural resources is often a key part of a conservation land trust's organizational mission. In addition, the organization might have

strategic goals and objectives that a working lands program might help to fulfill; for example, enhancing community engagement or supporting local food production. It is important to begin this process by formally identifying the purpose of establishing a working lands program to inform how the program is structured and ultimately administered. Perhaps most simply, a working lands program is a mechanism for financing the stewardship and maintenance of natural lands. Articulating the program purpose in statement, akin to organizational mission, is beneficial to identify the program intent and activities. The purpose statement can capture the why, what and how of the program.

Example purpose statement:

It is the intent of the Working Lands Program to demonstrate the profitability of ecologically managed agricultural productive lands. Some of these tracts may remain in agricultural production indefinitely, and some may be candidates for restoration.

The following sections of this document outline key elements to develop and implement a working lands program. Depending on organizational objectives, and whether this is a new program or realignment of existing organizational activities, a subset of these processes may be applicable for consideration and adoption.

Program Goals

Management of agricultural land through a working lands program should be driven by clear goals that reflect the purpose of the program. Establishing a clear set of farmland management goals improves organizational transparency by creating clear guidelines for tenant selection, budgeting, and reporting to constituents or other stakeholders.

Furthermore, program goals formalize commitments to conservation and create robust governance structures for working lands programs. While the program purpose statement is intended to be broad, program goals should specifically identify the objectives of the working lands program. Program goals, in this context, should be objective-setting statements that allow for some flexibility while not being overly broad.

Organizations should consider establishing goals that align with organizational priorities, such as:

- Conservation-focused or regenerative agriculture farmland management
- Equity in land access
- Partnerships that enable transition to regenerative agriculture
- Other goals, such as cultivating local expertise in regenerative agriculture or providing access to farmland to new farmers or veterans

Below is a template for language and example goals that can be used as a starting point for developing organizational working lands program goals.

Natural resource conservation organizations such as conservation land trusts are responsible for the ecological integrity of their land and are tasked with actively conserving, restoring, and managing natural resources including populations of native species and their habitats. In addition to natural resource conservation, these organizations often provide education, recreation, and cultural opportunities.

The vast majority of Illinois' land is rural and primarily used for agriculture. In Illinois' metropolitan areas, urban development has converted a once predominantly agricultural and natural landscape into a mosaic of suburban and urban developments with agricultural and remnant natural areas mixed throughout. Organizations may acquire parcels that include agricultural lands as part of their mission to protect natural resources by buffering adjoining natural areas, conserving open space, or reducing impacts to local water resources. Continued agricultural use of the parcel is often an economically driven management strategy for the organization. The organization aims to establish a farmland management plan that ensures regenerative agriculture practices are applied to manage these working lands and transition away from conventional farming practices that deplete or otherwise degrade natural resources.

Enrollment of tracts in the program will generate revenue for the organizations, which can be used to support restoration and stewardship efforts as well as integration of farmland tracts into the natural areas management plan. This will ensure that natural resources are not degraded while preparing the land for eventual restoration to natural habitat. The program will also contribute to the local agricultural economy.

Program goals will collectively guide those agencies with farmland holdings to ensure that the farmland is managed in line with the conservation mission of the organization, i.e. by supporting practices that build soil health and promote ecological diversity.

GOAL 1 - Implement farmland management practices or standards that conserve natural resources.

- **Conservation measures:** Include conservation requirements in the lease including conservation plans, pesticide use restrictions, buffers, tillage restrictions and additional requirements based on resource concerns identified in conservation plans (e.g. cover crops, grassed waterways, diversification, etc.)
- **Farm lease agreement and documentation:** Make the term of the lease between three to five years (longer where appropriate) to encourage conservation investments and standardize data collection forms to more effectively track

progress toward conservation outcomes; include other conservation focused provisions in the license agreements.

- **Farm lease termination:** Allow for non-renewal of leases in case there are anticipated plans to restore land to natural areas or for not complying with the terms of the lease.

- **Farmland management/natural resources fund:** Revenue from farm leases should go to a dedicated fund that is appropriated to natural resource restoration projects and farm management (e.g. soil testing, farm management staff, etc.) and/or pooled for shared services related to farmland maintenance and management.

GOAL 2 - Provide equitable access to leased land.

- **Tenant selection process:** Implement an equitable and transparent process to select farm tenants; allow flexibility to work with farmers that align with management priorities of the site; consider giving priority access to new farmers or veterans.

- **Land acquired with existing lease:** Provide equitable options for tenants with existing leases on acquired land.

GOAL 3 - Build partnerships that enable the transition from conventional farming practices to regenerative agriculture practices.

- **Monitoring and verification:** Develop a framework to track the implementation of conservation activities, assess progress, and report to the board; utilize data collected through the lease supplement; meet with tenants regularly to discuss management options and provide technical assistance.

- **Technical assistance:** In line with the education mission of the agency, develop programs that offer technical assistance and peer learning via workshops, demonstration farms, dedicated agronomy staff, etc. and connect tenants with agronomic and conservation regional resources such as Natural Resource Conservation Service or Soil and Water Conservation District staff.

Clearly articulating program goals is one of the factors in creating effective program outcomes. In addition, it is important to consider creating a program that facilitates collaboration and trust between landowners and tenants. In order to achieve the goals that the program sets out, it will need to establish solid and clear communication mechanisms with the farmers to facilitate good working relationships with farmers that participate in the program.

LAND MANAGEMENT STANDARDS

This section provides a template for setting overarching management standards and practices for all farmland held by organizations. For organizations that haven't previously managed farmland, this section provides guidance for site-specific and practice-specific land management in accordance with established standards. It is also possible that an organization already owns farmland that is managed without a formal program policy, or whatever program policy is in place focuses on conventional farming practices. This section will still be helpful in transitioning the approach though the pathway may not be as linear and depend on current conditions. For example, it could be as basic as going from a handshake deal to a written lease agreement.

The purpose for establishing land management standards is to achieve natural resource conservation goals identified by the program (see Goal 1 in "Program Goals" above). Such goals may be reached by transitioning conventional farmland management to a regenerative agricultural system. Delta created a [fact sheet](#) that describes key elements of regenerative agriculture and soil health for land-owning public agencies. These elements include keeping the ground covered, minimizing soil disturbance, diversifying rotations, and integrating livestock in the system. Furthermore, regenerative farm management should aim to:

- Protect and minimize the degradation of soil and water resources, wildlife habitat, plants, animals, and cultural resources;
- Promote the long-term ecological health of the working lands;
- Incorporate farmland near or adjacent to protected natural areas in that site's natural management plan; and
- Consider opportunities and/or plans for future restoration of the farmland to natural habitat.

A framework for creating an appropriate farmland management plan that incorporates regenerative agriculture practices is provided below.

Conduct a Site Assessment

To develop a management plan, land managers need to conduct a site assessment to understand the current conditions of the parcel. The site assessment will collect baseline data to assess habitat and any other land uses in the surrounding area. The program should generate and manage data that describes the conditions for each unit of analysis included in the site. The selection of units of analysis should be based on the smallest piece of land that has a set of management and cropping practices applied to it - usually, each field will comprise a unit of analysis. If farmland is situated adjacent to or within an existing protected conservation area, additional planning should be undertaken to ensure that the farmland management plan supports the resource management plan of the protected area.

Site Characteristics

The site assessment should include descriptions, evaluations and maps of natural and built features that are relevant to management. These include:

- Topographical features - slopes, hydrology, highly erodible land, etc.
- Infrastructure - buildings, drainage systems, fencing, access roads, riparian structures, etc.
- Habitat - inventory and assessment of habitat supporting areas (in-field habitat, buffers strips, hedgerows, waterways, etc.)
- Neighboring land properties - protected land, industrial sites, etc.
- Legal land use restrictions - easements, Farm Bill program enrollments, etc.
- Farmland conditions (see “Baseline data” section below)

Baseline Data

This data will assess the current farmland conditions at the site. The following types of information should be considered for inclusion:

- Soils - soil typology and any available soil test data.
 - Basic soil data, such as type, texture, slopes, etc., is available from USDA Web Soil Survey.
 - Specific chemical, biological, and physical soil parameters such as aggregate stability, respiration, nutrient cycling, organic matter, etc., that change in response to and inform management are generated by conducting baseline soil testing.
- Nutrient management - nutrient types and application rates history (3-5 years)
- Pest management - pesticide types and application rates history (3-5 years)
- Cropping systems - current crop rotation including cover crops, cropping history (3-5 years)
- Conservation practices - inventory of conservation practices, for example tillage, (3-5 years)

Baseline data and data collected subsequently will feed into the program evaluation framework (see “Program Evaluation” section) and allow farm managers and/or farmers to assess progress toward program and organizational goals. It is important to consider and include a range of parameters that can be tracked consistently over time. Templates for data collection forms are provided in Appendices C through F to help establish baseline data to be used as a starting point and for subsequent data collection in collaboration with the farmer.

Review Existing Management Plans

Ensure that current farmland management practices address resource concerns and support existing management priorities for adjacent land, especially if it is part of a protected preserve, by identifying, reviewing, and assessing current management plans (if they exist) for surrounding natural areas and neighboring properties. This may include management plans for wooded areas,

riparian areas, and botanical inventories. It may also include site specific investigations of areas like quarry sites or other past land uses in the area. These plans may specify additional constraints that may impact farmland management; for example, restrictions on pesticide use or buffer strip specifications to protect waterways.

Develop a Farm Management Plan (FMP)

The farm management plan (FMP) should be developed by conducting a thorough assessment of the site, synthesizing baseline conditions, and evaluating relevant documents that guide management. The FMP is a document primarily for landowners to outline how the farm will be managed in accordance with the organizational land management goals and goals defined by the program. The FMP will set specific goals for sites and incorporate information from site assessments. It will also include a conservation plan, a nutrient management plan, a cropping plan, and monitoring guidelines. The plan should also include specifications for all the management practices needed, their placement and timelines. The organization may choose to share the entire FMP with the farmer or components that pertain more directly to the farm operation.

Conservation Plan

A conservation plan is intended to provide the blueprint for the management of natural resources on the farm, i.e. reducing erosion, improving habitat and soil health, and increasing diversity of the farm operation. A conservation plan should outline the management practices to be implemented on each field. The practices should meet Natural Resource Conservation Service (NRCS) practice standards and specifications at minimum. In fact, NRCS offers technical assistance to farmers, local units of government, and other types of organizations through their Conservation Technical Assistance Program across the US. Additionally, NRCS conservation technicians or local Soil and Water Conservation Districts (SWCD) often serve as an effective entry point into USDA conservation programs that offer financial assistance for implementation as well state and local financial assistance and easement conservation programs.

The working lands program can require that the farmer is responsible for developing the conservation plan and submitting it to the organization. The local NRCS office and/or SWCD staff can typically help with developing a conservation plan as part of their conservation technical assistance program. If the organization wants to ensure that particular specifications are included (beyond NRCS specs), they should provide the farmer with a clear list of what needs to be implemented. Recommended specifications are provided below.

Alternatively, the organization can develop the conservation plan with assistance from NRCS, a qualified farm manager, and/or internal staff. It is recommended that organizations leverage technical assistance offered by NRCS or local SWCDs. It's also recommended that the farmer participates in the plan development process. The farmer should receive the plan as a lease addendum to ensure that both parties have a clear plan for conservation on the land. As the organization or farmer works to develop a conservation plan for the farm, it will be helpful to

identify specifications to include which establish consistent implementation guidelines for the practices. Below is a list of practices and specifications to consider:

Protecting Existing Habitat

- Reduce fertilizer applications or adopt nutrient capture practices to prevent fertilizer runoff to streams (see Nutrient Management Plan section below).
- If livestock grazing is included in the FMP, restrict livestock access to streams to prevent animal manure and fecal coliform pollution in the stream(s).
- If the leased property is adjacent to streams or wetlands, a perennial vegetated buffer between the leased property and the wetlands of minimum width should be implemented with a threshold set at 30ft or higher.¹
- Prohibit and herbicide pesticide application practices that may be detrimental to State or Federally designated endangered, threatened, or special concern species.
- Prohibit management practices that may be detrimental to species subject to protection under State or Federal statutes, such as the Critical Habitat and Endangered Species Act.

Enhancing Habitat

- Buffer strips are required on all fields with minimum width specifications (threshold set at 30ft or higher)
- Twenty-five to 50 percent of in-field habitat (e.g. buffer strips) includes native cover
- Specify haying frequency or timing (e.g. no haying before August to protect nesting grassland bird species)

Reducing Pesticide Use

- Develop an Integrated Pest Management plan that outlines pesticide use restrictions and reporting²
- Prohibit synthetic chemicals can be used on site if the operation is organic.

Reducing Erosion and Improving Soil Health

- Implement conservation tillage practices such as no-till, mulch till, or restrictions on fall tillage.
- Keep soil covered by maintaining residue cover at least 60%
- Utilize cover crop practices such as multispecies cover crops, planting green, or grazing cover crops

¹ Conservation practice standard, field border, code 386, minimum width is 30 feet

² https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044470.pdf

Tracking Progress

- Test for chemical, biological, and physical parameters such as aggregate stability, soil organic matter, respiration, etc.

Cropping Plan

Land management programs should seek to increase crop diversity within the cropping system, as diversification is one of the main principles in rebuilding soil health. While the program shouldn't be prescriptive about what crops the farmer is growing (because the feasibility of growing new crops depends on market access and numerous other factors), the program could set a minimum crop rotation period of three years to avoid situations where corn and soybeans are the only crops grown. The program can also work with the farmer to encourage and develop plans for longer crop rotation systems by aligning crop rotation periods with lease terms to provide tenure security to implement a longer crop rotation. If the organization wants to transition to a grazing operation, cropping plan goals should outline perennial cover as a target. Such goals and conditions should be clearly identified and discussed with the farmer leasing the land.

Regardless of cropping system goals, the farmer should develop annual cropping plans based on program goals related to cropping systems. For example, the lease might incorporate reporting provisions about cropping history and yields; record-keeping will facilitate transparency and reduce the administrative burden for the farmer.

Nutrient Management Plan

The FMP should include a nutrient management plan that is appropriate for the cropping system in place. Like a cropping plan, farmers develop and update nutrient management plans annually leveraging NRCS technical assistance if needed. Farmers should submit these plans as part of lease reporting requirements to facilitate the tracking and evaluation of land management. The organization should provide clear guidance to farmers regarding any nutrient application restrictions and reporting requirement that might be desired. The nutrient management plan should follow an approach such as 4R and may consider the following guidelines/restrictions that should be implemented:

- Reduce the use of synthetic fertilizers and encourage use of compost or other non-synthetic inputs.
- Account for all sources of Nitrogen, Phosphorus and Potassium that add nutrients to the soil to help reduce the potential for over-application of fertilizer (see reporting forms in Appendix D).
- Ensure that fertilizer is applied only when plants require it to limit nutrient loss by surface water runoff, perhaps by implementing a split application.
- Prohibit/restrict the application of animal manures to fields where the risk of manure runoff to streams is high (i.e., floodplains, steep slopes near streams).
- Do not apply fertilizer in the fall season.

Integration with Natural Area Management

If the farm has natural areas incorporated or is adjacent to protected areas, the FMP should reflect habitat management priorities for those areas and refine management practices to ensure that the FMP is aligned with habitat management for the site. This will be site specific, but the organization is encouraged to establish a process for integrating habitat management needs of the farm and/or adjacent properties.

Monitoring & Reporting

As organizations develop guidelines on how components of the FMP should be structured, in particular, those that address information sharing processes, it is important to consider establishing procedures that identify who is responsible for generating what information, how frequently it needs to be produced, and how it should be shared. Table 1 lists recommendations while Appendix C contains template forms that can be used to create an efficient and consistent data management system.

Table 1. Monitoring & Reporting Recommendations

Data type	Reporting frequency	Responsible party
Conservation practices	Annual verification (see Appendix C for reporting form)	Organization collects data via site visit; Farmer provides requested documentation as appropriate
Pesticide use	Annual report on pesticide use (see Appendix E for reporting form)	Organization should provide guidelines on any specific rules and restrictions and template form for reporting Farmer submits annual the reporting form
Soil testing	Annual testing for respiration, nutrients every 3 years for soil organic matter	Organization should develop testing protocol and conduct testing, share results with farmers Farmer should be responsive to management recommendations

Cropping systems/plans	Annual reporting for crop grown, yield	Organization should establish goals, any specific requirements, discuss with farmer ways to increase diversity, provide template for reporting Farmer submits annual the reporting form
Nutrient management	Annual reporting (see Appendix D for reporting form)	Organization should provide guidelines on any specific rules and restrictions and template form for reporting Farmer submits annual the reporting form

Developing and establishing standards for farmland management is an iterative and complex process to ensure they reflect organizational goals and objectives. Even if there is broad agreement about adherence to regenerative agriculture practices and systems, each organization and parcel has its own characteristics and priorities that need to be met while also enabling farmers to make decisions about their farming operations. This section offers a framework and tools to navigate that process and provides recommendations for the distribution of roles and responsibilities. The framework enables practitioners to work with a diverse set of partners and the flexibility to tailor the management strategies for each site’s characteristics.

Land managers should consider the evolving policy landscape as they develop land management standards because working and natural lands are considered to be a critical component of climate change mitigation strategies. Many states are considering legislative and/or regulatory action focusing on soil health and/or soil carbon storage. If adopted, this could lead to potential specific reporting or programs to support conservation focused land management. Additionally, states in the Mississippi River watershed have established water quality improvement goals (e.g. Illinois Nutrient Loss Reduction Strategy) that identify nutrient losses from farmland as key contributors to pollution and set numeric reduction targets. Land trusts that manage land within the boundaries of highly impacted watersheds can play an active role in helping the State of Illinois reach its water quality improvement goals. States could be allocating additional resources to ensure regenerative agriculture is occurring. Land trusts that have implemented working lands programs with robust management structure and data management could be well positioned to align with such policies.

PROGRAM EVALUATION FRAMEWORK

Establish Success Indicators

Determine metrics to track progress that are consistent with the FMP. When metrics are selected, a baseline measurement for the selected indicators can be established. Each metric will assess a particular management aspect, though there may be several metrics that are related to a broader category of management priorities to improve habitat. Furthermore, it could be useful to be able to combine all the metrics into an overall grade or index of success for reporting to the Board of Directors or looking at overall effectiveness. To explore this approach, we provide a template [data tracking model](#) for developing an evaluation index with examples of different metrics (Appendix A). The index is composed of management categories, such as habitat, nutrient management. Within each category, there are specific management activities that each get scored on a scale of 0 to 4. Each land trust establishing a working lands program will have to determine what activities to include and the degree of implementation that has been achieved for each management activity. Generally 0 would mean not meeting the minimum requirements, while a 4 represents ideal management (note: for activities that can be ranked categorically, e.g. low/medium/high, corresponding ranking could be 0/2/4, not utilizing every ranking level). The scores for each activity can be averaged for each category or for all activities to get a composite overall score for high-level evaluation and reporting. The index can be an unweighted average of all activities or have more weight assigned to activities to evaluate performance against specific resource concerns and management priorities. The template for the index is available in Appendix A.

Establish Management Data Structure and Collection

Establish management units and naming conventions for each unit. The recommended management unit is a field or tract. The naming convention can be as follows: SiteName_Field# OR SiteName_Tract#

Determine what database tools the organization will use to store the data. A database that can be incorporated into GIS and other analytics tools is preferred. Of course, the database chosen will depend on existing data infrastructure of the organization. Consider the method for aggregating and analyzing site data as well as future potential for growth and adjustments when creating the data fields.

Evaluation and data collection should be conducted for each management unit at the appropriate frequency. Recommendations for monitoring and reporting frequency is provided in the Land Management Standards Section of this guide.

Organizations should provide a clear process for each tenant to submit required reports. Monitoring may also include percent residue surveys, tissue samples, field checks, and review of receipts. Verification is recommended on a tract/field basis. An annual farm conservation

monitoring report that provides guidance for documenting monitoring and verification is provided in the Appendix C.

Determine Soil Testing Protocol and Lab

If soil health and nutrient management goals are articulated in the FMP, the management units will need to have soil testing conducted. Working with the farmer, the organization should determine sampling locations, frequency, and which parameters to test for. Typical soil testing includes NPK measurements, but the organization should also consider testing for biological parameters as well to better assess soil health. A detailed soil health testing protocol is available [here](#). Below we highlight several key factors that go into conducting soil testing.

Site Selection

Choosing sites for soil health testing depends on several factors. If budget allows, an organization can test all their agricultural lands, as well as natural areas like restored and remnant prairies as a control. If budget is limited, an organization can test a subset of their land, choosing parcels with different uses or selecting areas to focus on. Selected sites might include areas with unique uses, areas where an organization expects to see changes, or areas with ongoing management projects. Organizations can also use multi-year strategies like testing a third of their land each year so that each parcel is tested every three years. Some labs offer different levels of testing, so an organization could do extensive testing every three to five years and opt for a lower, cheaper level of testing in the intermediate years as a cost-saving measure.

An important thing to remember when selecting sites is that some fields may require multiple tests if it has multiple soil types.

Lab Selection

There are many soil health testing labs available offering different services. Choosing a lab to work with depends on multiple criteria, including but not limited to cost, parameters tested, timing, and accessibility of results. This decision can be informed by setting goals and identifying constraints early in the planning process. Adopting a consistent approach to sampling is critical because these tests are still novel and utilize different analytical methods and algorithms to synthesize multiple indicators into a single informative assessment of soil health. We recommend using the same lab and battery of tests, as well as working with an independent consultant to conduct soil collection (unless done by internal staff) to maintain the integrity of the data, especially if you are choosing to test over the course of multiple years. Some of the well-established soil health testing laboratories and methodologies come from Cornell Soil Health Lab, Solvita, and Haney battery of tests, which range in price \$60-110/per sample. Each lab evaluates a set of parameters reflecting key soil health processes and reports results in a variety of formats. The soil health processes evaluated include microbial activity (e.g. active carbon), organic matter, soil stability (e.g. aggregate stability), water and air filtration (e.g. bulk density), nutrients, and soil acidity.

Timing

Soil properties undergo seasonal and other temporal fluctuations and are impacted by precipitation and temperature. Because of this, it is important to consistently test at the same time of year each year, with recommendations ranging from within the same month to within the same season. Testing usually occurs in the spring before tillage and planting or in the fall before tillage. Testing in the spring allows organizations to understand the soil they are planting in and to test during a less busy time for both land managers and testing labs. However, the testing window in the spring is very narrow for collecting samples, waiting for results, and sharing those results with farmers. Organizations should plan on waiting six to eight weeks for soil health test results. Fall testing can be used to inform decision making for the upcoming spring growing season, allow for the application of things like lime that take several months to affect soil health, and potentially receive discounts on items like fertilizer. Fall testing does mean taking on an additional task during a busier time of year and it can take longer to receive results. Timing may also depend on organizational factors such as budget and staff capacity.

Soil health testing tools continue to evolve, providing accurate and concise information to land managers. By thoughtfully considering the most appropriate test early in this process, land managers can begin collecting data that will inform decisions now and continue to support land management goals in years to come.

The framework laid out in this document - setting management objectives, developing a plan for implementation, gathering data about activities - lends well to an adaptive management approach, where the goal is to improve management decisions. Adaptive management is especially relevant in the context of natural resource management, where there are competing priorities, uncertainty, and limited resources. As such, assessing progress of a working lands program will be an iterative process that requires revisiting initial goals, monitoring, and adjusting the course of action if necessary. Through these steps, the landowners and farmers can evaluate the management actions and adjust to improve over time. There is a wealth of literature on adaptive management, including in the agricultural sector. An example of a resource is offered by the Soil and Water Conservation Society, *The Sciences and Art of Adaptive Management: Innovating for Sustainable Agriculture and Natural Resource Management*, edited by Keith M. Moore.

ROLES AND RESPONSIBILITIES

The program should clearly outline roles and responsibilities for both lessor and lessee to ensure that implementation, reporting, and verification can occur. Also, there may be consultants or third-party vendors that work on the property. Furthermore, lessees could provide services in lieu of cash payments as appropriate. The table below outlines a framework for determining roles and responsibilities for program administrators and participants.

The organization may choose to lease only tillable acres or the entire parcel that includes habitat areas and on-site structures. Depending on whether the lease includes only tillable acres or covers the whole farm, some of the activities and associated responsibilities may not apply, as indicated in Table 2.

Table 2. Working Lands Program proposed activities, roles, and responsibilities

Activity	Timing	Area	Responsible party
Conduct site assessment/gather baseline data	For each new property	Entire parcel + adjoining area if appropriate	Landowner
Develop whole FMP, share upon request	Periodic, every 5 years	Depends on parameters of the lease	Landowner in partnership with farmer
Develop farm agricultural conservation plan	Periodic, every 3- 5 years	Habitat acres (e.g. Conservation Reserve Program, buffers, hedgerows, etc.)	Farmer supported by technical service provider, in consultation with landowner
Develop cropping plan	Annually	Cropland acres	Farmer, following organizational cropping system principles

Procure technical assistance from the local district of the NRCS, the local SWCD and the FSA³, or an agronomist to develop the farm conservation plan	Periodic, every 3- 5 years	Area under whole FMP	Farmer
Articulate goal for cropping system, provide guidance	Periodic, every 3- 5 years	Area under whole FMP	Landowner
Create and submit annual cropping plan	Each year	Area under whole FMP	Farmer
Provide guidance for developing nutrient management plan	For each new agreement and when guidance changes	Area under whole FMP	Landowner
Create and submit annual nutrient management plan	Each year	Area under whole FMP	Farmer
Implement services or make capital investment to improve property (in lieu of cash payments or set up as a cost-share agreement)	Specified frequency	As appropriate	Landowner to provide scope Farmer to implement
Authorize participation in state or federal conservation or commodity programs	When signing lease agreement	Area under whole FMP	Landowner provides authorization, farmer handles application and enrollment
Conduct soil testing	Every 1-3 years	Cropping areas	Landowner

³ Natural Resource Conservation Service, Soil and Water Conservation District, and Farm Service Agency

Purchase seeds, inputs, etc.	Annually	Cropping areas	Farmer
Day-to-day program implementation	Ongoing basis	All working lands	Staff person to be designated by landowner

Considerations and examples of services:

- Set a threshold/limit on value of services if desired, for example, value of services may not exceed a total of 10 percent of the lease value or \$10,000.
- Application of chemicals to control noxious, exotic and invasive weeds, vegetation control, brush and general agricultural purposes; the farmer is required to provide a copy of his current valid state applicators license.
- Clearing projects - renovation of wildlife management lands by removing brush or trees
- Construction and maintenance of field access roads for wildlife management purposes
- Installation, maintenance, or repair of culverts for field access roads, water management (including sedimentation removal), and/or hunter parking lots; farmers are required to obtain all applicable permits from State, county or township jurisdictions.
- Fertilizer and agriculture lime application on food plots, sunflower fields, waterfowl management fields, grass and legume and other wildlife management plantings
- Field tillage, preparation and planting services provided for wildlife food, legume and grass plantings
- Labor for installation of boundary fencing or signage
- Mowing for specific wildlife management purposes; access, vegetation control, hunting strips and field renovation
- Minor hazard removal, e.g. stumps, foundations or equipment
- Repair and maintenance of drainage structures - (terraces, waterways, water control structures, trenches, etc.)
- Hauling rock and/or spreading of rock, materials provided by the landowner

If the agreement established capital improvements on the property as being the responsibility of the farmer, in the case of early lease termination, depreciation of the investment needs to be considered and reimbursed accordingly. A template for a lease addendum that outlines depreciation costs is provided in Appendix F (courtesy of Solutions in the Land, LLC).

Service Cooperatives

A service cooperative, if it exists or is created in the service area of the conservation land trust, could provide technical assistance or some of the maintenance labor related to habitat and farm management.

Service cooperatives are predicated on the idea that organizations with similar missions and goals can achieve their missions and goals more efficiently and more economically by working together. Two examples currently being used in Illinois are the Northwest Illinois Stewardship Co-op (“NISC”), which sells natural areas stewardship services to its members at a below-market rate and the Southern Illinois Prescribed Burn Association (“SIPBA”), which is a group of landowners that help each other conduct prescribed burns on their properties. Conservation land trusts operating in Illinois that do not currently have these types of service cooperatives have a lot to gain by working cooperatively with other conservation land trusts, conservation agencies, and conservation-minded private landowners.

Furthermore, if multiple cooperative members own and manage farmland, a service offered by the cooperative could include farm management, soil testing, and/or others related to the management of a working lands program. In such cases, part of the revenue generated from farm leases can also be allocated to fund a staff position at the cooperative that will have the capacity and expertise to provide such services to members of the cooperative (see section on Fund Allocations below).

Technical Service Providers/Third Party Vendors

An alternative model is working with third party vendors or service providers. These may include the local Soil and Water Conservation District, NRCS office, Certified Crop Advisors or farm management companies working in the area. NRCS Conservation Technical Assistance program provides such services to farmers for free.

Agricultural Community

Another source of agronomic expertise is the local farming community. Involving farmers in the development and implementation of the program will help build the bridge between conservation and agriculture, leverage knowledge and experience of farmers in the community, and expand expertise needed to transition to regenerative agriculture systems.

FUND ALLOCATIONS

Program Revenue

An organization with a Working Lands Program should dictate how the revenue from the program is allocated. Revenue from working lands is sometimes applied to an organization's general fund to support operational expenses. In other cases, working lands revenue is commonly utilized for specific conservation programs of the organization. In the Program Goals section of this document, there is an example of a goal that aims to establish a conservation or stewardship fund to support conservation work. This is likely something that will need to be discussed with and approved by the organization's board.

All or a portion of the working lands revenue can be utilized to support the farm operation. This amount may change over time, starting out as a larger proportion of the revenue to address any issues. Over time, the proportion will likely decrease when management practices have transitioned, and a routine is established. Of course, the exact amount will depend on the needs of the farm.

Another proportion of the revenue might be directed to support farm management services. The actual amount might be based on acreage or based on the specific service rendered. Farm management services can be obtained through an individual contractor or a cooperative is based on a fee-for-service approach. If a conservation land trust is a member of an existing service cooperative, it may work with other members and/or the governing board to include farm management related services and pricing structure into the operation of the cooperative.

Furthermore, the land trust or multiple land trusts may form an entity to run the working lands program as a separate business or program. The business model is can be found online at our State of Land Stewardship in Illinois project page (<https://delta-institute.org/project/examining-the-state-of-land-stewardship-in-illinois/>).

ELIGIBILITY

Tenant

When farmland ownership is transferred, it is possible that there may be an arrangement that the lease agreement remains in place for the tenant to continue to farm the land. The land trust will probably continue working with the existing tenant, in the short term. In those cases, the land trust should establish a process for partnering with an existing tenant to cultivate a working relationship that would allow an eventual transition to a conservation focused farming system.

If the landowner is seeking a new tenant for their farm, the program should establish criteria and processes for selecting tenants who lease farmland. These criteria should reflect the goals of the program. As goals are likely to include conservation ethics, the land trust should consider one criterion to evaluate the tenant's willingness and/or ability to implement practices needed for conservation efforts. Another potential criterion to include could reflect goals related to land access. If the land trust wants to ensure racial and gender equity, or to support beginning farmers, criteria related to those goals should be articulated and used to evaluate prospective tenants. Soliciting bids for the contract using a focused application and a Request for Proposals (RFP) coupled with an in-person meeting/interview is an effective approach to ensure that the tenant is a good fit for the program.

Land

If the program's land management approach emphasizes conservation and/or regenerative agriculture, it should allow diverse uses for the land. Although most common agricultural operations in Illinois are conventional row crop farms, the program should have the ability to authorize transition to perennial crops, grazing, vegetable production, etc.

Donated Land Conditions

Land donated to a conservation land trust may have restrictions or conditions regarding its use. Assuming that the land was in agricultural use, the following considerations might factor into the acquisition deal: the donor might have an agreement with a previous tenant that remains in effect or might want guarantees that land remains in agricultural production for a given number of years. If the organization accepts such land donations, the program should offer flexibility to allow those conditions to be honored and gradually integrated into the broader programmatic structure.

CONTRACT

The lease agreement is the key mechanism that land managers and owners can use to ensure that their land is managed in a certain way. Prior to drafting a lease agreement or considering changes to the lease, consider what barriers might exist (e.g. lack of partners, limitations on term length, etc.) in the current governance structure that could prevent the implementation of conservation provisions in the lease.

Preamble

A preamble could be added to the beginning of the lease to explain the fundamental purpose. This could be important if the farmer does not comply with the conservation provisions in the lease and the landowner wishes to claim a breach of contract or not renew the lease. It could make it clear that a purpose of the lease is to build soil health by engaging in conservation practices.

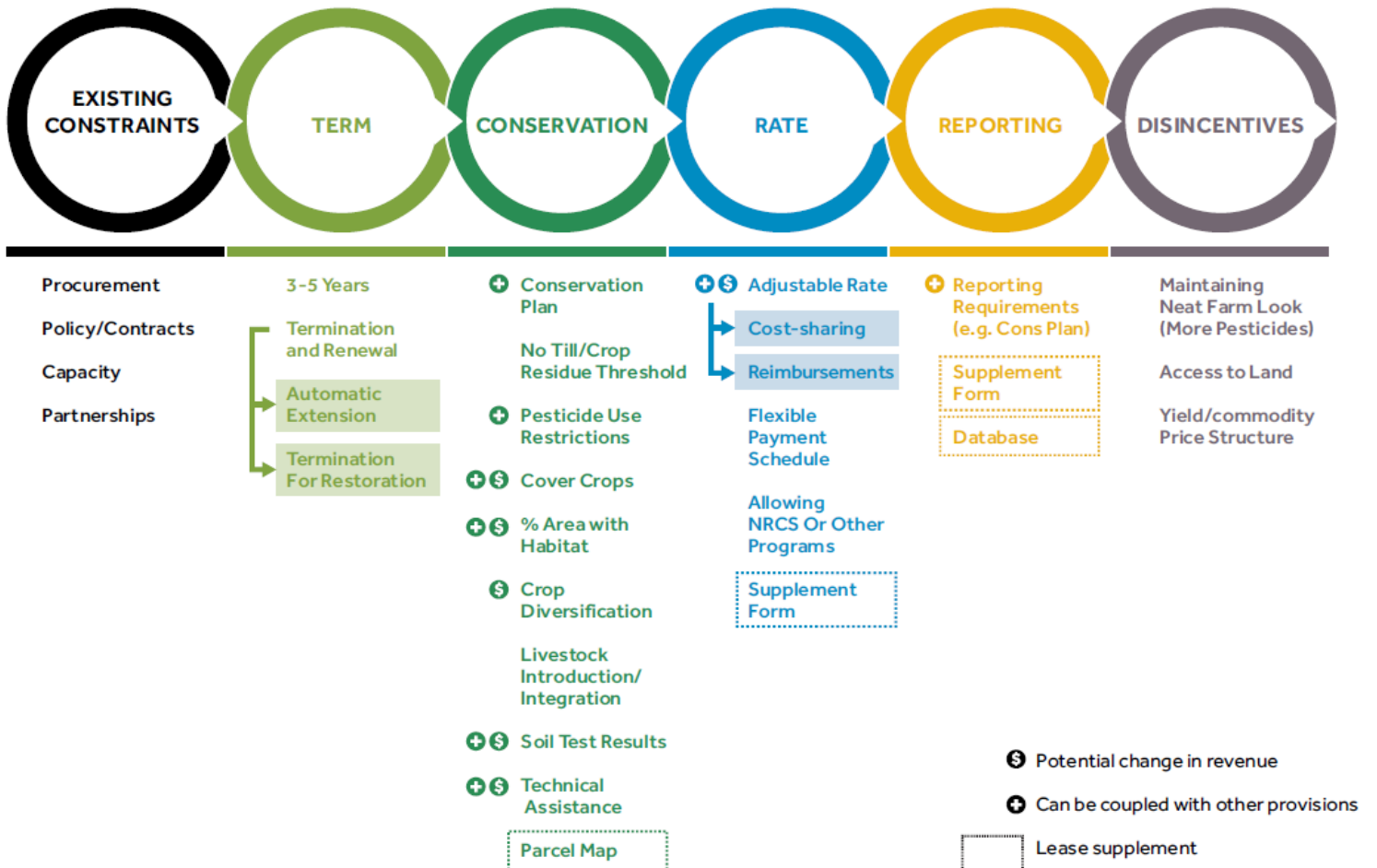
Site Description

The lease should specify acreage and provide a map with clear boundaries of the property leased (See Payment Rates for more details on options to determine acreage). Revisit the site map annually to adjust acreage when it changes.

Conservation Provisions

There is a spectrum of options available to build a lease that incorporates regenerative agriculture principles. Organizations can tailor their approach by selecting provisions that fit best within their current situation. Figure 1 provides an overview of conservation provisions. A detailed discussion of the conservation lease framework is [available here](#). Template provisions can be found in Appendix B and [online here](#).

Figure 1. Conservation Lease Framework



Term

Increasing the lease term creates an incentive to implement more conservation because it enhances tenure security. As such, the tenant has an opportunity to engage in long-term planning and is on the land long enough to see the benefits of investing into on-farm practices. The conditions under which leases are renewed and terminated are also important because they can set the tone for establishing good working relationships with tenants and reduce transaction costs for the organization. For natural resource agencies that ultimately want to restore farmland to natural habitat, being upfront about plans and the timeline to terminate a lease ensures transparency in the process while addressing the organizations' needs.

To incentivize regenerative agriculture through the lease term, ensure that organization's policy doesn't set a cap term at a low number. If such a cap exists, amend the procurement rules or

policies to increase or remove the cap. We recommend setting the term length to three to five years (with mechanisms to adjust rate) to align with extended crop rotations and the accrual of long-term benefits associated with soil health building practices.

Longer lease terms allow for more time to implement practices, increase tenure security for the tenant, and reduce transaction costs. On the other hand, there may be a perceived reduction in flexibility to renegotiate rental rates. A clause requiring annual approval and extension by the governing body can be used to provide a regular oversight and engagement opportunity with tenants. The term length can be variable from site to site and determined based on site management plans.

Lease Approval

Organizations should have a clear process for approving lease agreements, e.g. via board vote or committee vote in agreement with organizational rules and/or by-laws. For example, the Natural Land Institute executes a Farm Lease Agreement in a form approved by the Working Lands Subcommittee of the Land Conservation Committee. For another example, Jo Daviess Conservation Foundation has delegated approval of leases wherever a lease is authorized within a Board-approved Site Management Plan.

Lease Renewals

To streamline the lease renewal, explore and integrate provisions that allow for automatic renewals. Renewing the contract can be an important interaction between the landowner and the farmer that affects their working relationship. It's important to create a process that allows for fair negotiations but also ensures that lease obligations are being fulfilled. Another consideration for determining the renewal process is the administrative capacity. Streamlining the renewal process can reduce transaction costs and build trust with tenants. However, difficulties may arise when there are plans to restore property to non-agricultural land use or working with an untested tenant.

Lease Termination

Illinois statute (735 ILCS 5/9-2067) requires that the landowner give four-month notice of termination to the farm tenant unless the written lease agreement states otherwise. The lease agreement term typically begins on March 1, so decisions about renewals and terminations should be made by October (unless a shorter notice period is written into the lease).

Organizations may reduce the acreage of or terminate agricultural leases due to site habitat restoration or for any other reason related to activities of the organization. The working lands program staff should periodically review staff recommendations and determine whether each leased property should remain in the program, be terminated from the program, or be reduced in acreage.

In advance of the reduction or termination of agricultural leases, if the land is to be restored, the organization should prepare a restoration plan and budget and allocate project funds for restoration into which farm lease fees shall be deposited.

Termination provisions can be coupled with conservation provisions relevant to site needs and prospects of potential land use changes to ensure that termination is not unexpected. Furthermore, provisions for early termination for non-compliance should be included in the lease. Examples for streamlined renewals include: automatic extension without notice to terminate; option for adjusting rental rate in lease extensions based on a provided index (plus a provision for indexing rates); right of first refusal when term is set to expire; lease term structure is three plus one plus one years rather than five years up front.

The organization should provide a consistent, fair, and efficient course of action for the acreage reduction and/or termination of leased properties from the program. Typically, plans to implement a restoration project start being developed three to five years before the actual work occurs. A termination clause should be included in the lease agreement and notice should be provided to tenants in writing. The land trust will have to decide regarding the period when the notice should be provided.

Leases may also be terminated in the case of non-compliance or non-payment. See Compliance and Payments sections for more information on non-compliance and non-payment, respectively.

Conservation

In addition to creating a lease that encourages conservation practices, leases can include provisions that require specific conservation practices to address resource concerns or establish a baseline level of conservation on the land. Some practices may require special skills or equipment to implement and could be coupled with technical assistance and/or variable rate setting mechanisms to ensure an equitable and sustainable lease. Below are various approaches that incorporate conservation practice provisions into the lease:

- Require tenants to develop and submit management plans, such as conservation, pest management, nutrient management plans according to an existing standard (e.g. NRCS) to ensure consistency and quality.
- Require no till and/or crop residue thresholds.
- Restrict pesticide use according to organizational guidelines.
- Implement cover crops.
- Implement habitat, diversification, and/or livestock integration.
- Conduct soil testing linked to reporting provisions to ensure that soil measurements are integrated into overall data tracking for the farmland.
- Provide technical assistance to tenants, internally or externally provided.

Maps, practice specifications, and other supporting information (e.g. soil type) about the parcel should be provided by the land trust to the tenants to increase transparency and solicit competitive bids.

Lease Payments

The lease document should provide a clear process for each tenant to submit lease payments to the landowner, whether in person, by mail, or electronically. The lease document should specify whether the tenant is expected to submit payment to the landowner “without demand” or whether the landowner will remind/invoice the tenant when payment comes due.

Payment Schedule

A typical payment schedule could consist of two installments per year, with the first payment due March 1 of each year (typical beginning of the lease term) and the second payment due on December 1 of each year. Variable lease rates may lead to a different payment schedule. Depending on the specific type of variable rate used, the payment schedule should be set up to accommodate that.

In a per acre rate scenario, the first payment due to the landowner in any year is usually a fixed amount while the second payment due to the landowner is based on the number of acres farmed. For example, a lease specifying a rate of \$200 per acre could require a flat amount of \$2000 for the first lease payment, and the second payment would be the actual number of acres farms times \$200 per acre less the amount of the first payment.

To incentivize conservation practices, the program may implement a flexible payment schedule that allows tenants to make smaller payments early on and increase payment amount over time can provide tenants more capital to invest in conservation practices. The downside of that is that more payments or different types of payments can increase the transactional costs for the agency and make it more difficult to budget.

Non-Payment

The lease should include language regarding failure to pay, terminating the agreement if attempts were made to resolve the issues were unsuccessful. The program should outline how many attempts would be made, the format, any late payment fees that may be applicable, etc. If the same tenant is leasing the property multiple years in a row, the lease could specify that the landowner may place a lien on the next year’s crop in order to recover unpaid lease payments from the previous year.

Payment Rates

The dollar amount of the lease payments due to the landowner from the tenant can either be a fixed amount, a fixed rate or a variable rate based on several factors. In general, fixed rates are

preferable for ease of budgeting and administration, but variable rates may be used depending on the landowner and tenant's preferences.

The fixed amount is a set amount that the tenant pays regardless of exact acreage negotiated in advance. Rate-based payments are based on the number of acres that are farmed in a given year. In this case, the lease will specify a lease rate on a per acre basis and the total amount of the lease payment will depend on the actual number of acres farmed by the tenant in any given year. It's important to specify the method by which the number of farmed acres will be calculated. For example, the land trust could measure the number of acres using their GIS software, the farmer (or the farmer's service providers) could measure the number of acres using his/her GIS-enabled farm equipment, or acreage data could be taken from the farm reports generated by the USDA Farm Service Agency.

Variable lease rates can also be based on the type of agricultural practices that occur in any given year. For example, high value crops, such as corn, could be leased at a rate of \$200 per acre, while lower value crops, such as hay or livestock pasture, could be leased at a rate of \$50 per acre. This type of variable lease rate is especially important if a crop rotation schedule is being used (see "Cropping Plan" section). An ideal variable lease payment structure will also take into consideration any conservation practices required and adjust rate to incentivize their implementation.

How the rental rate is set, and the actual amount are important considerations in the lease negotiation process. If the goal is to promote sustainability and conservation, the rate should allow for adjustments based on investments made by the tenant, especially if the tenant is unlikely to observe the benefits from the investment before the termination of the lease. Offering more flexibility through the lease payment structure can aid tenants transitioning to sustainable practices in managing their risk as expenses and yield could be impacted in this period of transition.

Base rate can be based on the market prices, reducing complexity and eliminating power imbalance and there are many ways to structure adjustments through reimbursements or cost-share. However, detailed information about parcels and practices is needed to determine appropriate discounts, which creates an additional administrative cost. A more detailed discussion of different cost structures is available here.

Reporting

Data regarding management activities and outcomes is key in assessing progress which can build more support for the farmland leasing program and lead to more resources being allocated for implementation. As data is gathered and analyzed, agencies can make informed decisions about the program and continue to refine it to achieve conservation outcomes.

This provision should be coupled with conservation provisions that require documentation (e.g. conservation plan submission, pesticide/nutrient application) to make verification more efficient. If

the agency is developing a data tracking system, reporting provisions in the lease can be an efficient mechanism to ensure that needed data is provided to the agency.

Standard forms to gather data from tenants can be used to ensure consistent reporting and intake of the relevant data. Template forms are provided in the Appendix C.

Disincentives

Some provisions have the potential to disincentivize conservation. When reviewing and amending the lease to encourage and/or require practices, it is important to identify and change provisions that may inadvertently create barriers to conservation.

A 'Good Neighbor' Provision

These are aimed at maintaining a neat farm look and managing noxious weeds. Provisions like these can incentive the overuse of pesticides. This can be addressed by either removing the provision or strengthening the pesticide/ herbicide restrictions.

Access to Land

As part of their duties, land trusts often reserve access to leased farmland during certain parts of the year. Restricting farmer access can prevent certain on farm conservation practices (ex: winter cover crops). Conversely, staff need to access land to verify lease conditions are being met and/or to install practices. Conditions need to be clearly stated and formulated so that conservation is not impeded.

Rental Rate Structures

While rates should be set to ensure equity and transparency, adjustments based on yield or commodity prices or revenue-sharing cost structures may disincentivize more diverse crop rotations and innovative practices that carry the risk of reduced yield.

The lease agreement is the tool that allows the landowner and the tenant to not only formalize expectations and roles, but also to build a solid foundation for a working relationship between them. Organizations that lease farmland already have the legal and administrative infrastructure to enhance their written agreements. The provisions outlined above demonstrate the range of options an organization has to create a lease agreement that supports transition to regenerative agriculture, works within their existing conditions, and provides mechanisms to enforce implementation.

An organization can start by adopting one or two provisions that may be easier to implement, such as extending the term of the lease. As relationships between the organization and farmers in the community progress, additional conservation measures can be included in the lease in a way that distributes some of the risk and financial burden equitably while allowing for verification and transparency. Many of the lease provisions outlined here can be also utilized in the private sector.

Additional resources on farm leases are provided by the University of Illinois Extensions as well as Farmland Information Center and Vermont Law School Center for Agriculture and Food Systems.

Compliance

The organization should establish a process for verifying compliance with the farm lease agreement each year. This underscores the need to establish robust annual reporting and program data management that can be used to confirm implementation of various conservation practices.

From the legal perspective, there are three main ways to enforce the conservation provisions in the lease. First, the agency should include a provision in the lease that states that failure to comply with conservation requirements is considered a default. The second way to enforce lease provisions relating to conservation is to send a notice of nonrenewal to the tenant if they are not complying with those provisions. Finally, the fundamental purpose of the lease should be stated in the preamble to ensure that conservation, in addition to crop production, is the fundamental purpose of the agreement and can be used to legally constitute a breach of contract.

Standard Business Terms

In addition to the conservation provisions, the lease agreement will include standard business terms common to all farm leases. [University of Illinois Extension](#) has extensive resources on agricultural law and farmland leasing, including lease templates.

APPENDICES

Appendix A. Data Tracking Model: Agricultural Conservation Index

	0	1	2	
NUTRIENT MANAGEMENT	Fertilizer Application Planning	No plan	Nutrient Management Plan developed and kept updated	
	Fertilizer Application	Fall application	Nutrients added immediately before or during the growing season	4R plan (or equivalent) implemented annually
SOIL TESTING	Soil Testing frequency and farmer interaction	No soil tests	Cornell Soil Health Test Baseline established	Farmer and MCCD review Cornell Soil Health Test
	Advanced Soil Testing (Biological)	Cornell Soil Health Test Overall Quality Score 0-20	Cornell Soil Health Test Overall Quality Score 20-40	Cornell Soil Health Test Overall Quality Score 40-60
	Responses to Soil Testing	Soil test results not informing management	Implement at least one practice in response to soil test results	Implement at least two practices in response to soil test results
CROPPING	Residue Cover (June 1st-15th)	Low: <20%		Medium: 20-60%
	Crop Rotations	Continuous (example: corn/corn)	Two crop rotation (example: corn/soybeans)	
	Cover Crops - Implementation	No plan	Conservation plan guidelines followed	Cover crops on HEL ground
	Cover Crops - Diversity	No cover crops	Single species	Multi species
BMPs	Grassed Filter Strip	No filter strip or doesn't meet specifications	Filter strip meets specifications (30 ft -65 ft next to high quality stream)	Filter strips maintained to spec annually
HABITAT	In-field Habitat (not relevant)	Vegetation not suitable for wildlife habitat	Field includes filter strip, field border, or grassy waterway	Establish in-field habitat
	In-field Habitat	No habitat	At least 10% of field acres is permanent habitat, could be around the edges	Manage field for hay
	Pesticide Use - Planning (any chemical sprayed on fields for bugs or weeds or fungus control)	No records	Keep records of pesticide / herbicide application on each field/ proof of license	Develop a plan to reduce movement of pesticide by either: 1) Enlist field(s) in DriftWatch 2) communicate sensitive times to avoid spraying with neighboring farms, or 3) develop mitigation plan that reduces movement of pesticide
	Pesticide Use - Implementation (any chemical sprayed on fields for bugs or weeds or fungus control)	Not following management plan restrictions	Use contact/selective herbicides (meet requirements of the management plan)	Implement practices that reduce movement of pesticide

3	4		
	4R plan completed updated annually OR Crop consultant deems that no plan is needed	Fertilizer Application Planning	NUTRIENT MANAGEMENT
Variable rate application	No synthetic fertilizer used	Fertilizer Application	
Develop a conservation plan based on soil health test results		Soil Testing frequency and farmer interaction	SOIL TESTING
Cornell Soil Health Test Overall Quality Score 60-80	Cornell Soil Health Test Overall Quality Score 80-100	Advanced Soil Testing (Biological)	
Implement at least three practices in response to soil test results	Implement all management changes in response to soil test recommendations	Responses to Soil Testing	
	High: >60%	Residue Cover (June 1st-15th)	CROPPING
Three or more crops in rotation (example: corn/soybeans/wheat)	Perennial cropping system	Crop Rotations	
Cover crops on NHEL ground	Grazing cover crops	Cover Crops - Implementation	
Multi species with a legume	Implementing cover crops (any mix) AND planting green	Cover Crops - Diversity	
		Grassed Filter Strip	BMPs
Establish in-field habitat with non-native cover	Establish in-field habitat with native cover	In-field Habitat (not relevant)	HABITAT
Manage hay field for late cutting	Implement permanent cover or pasture	In-field Habitat	
Develop an Integrated Pest Management plan utilizing less persistent/toxic for habitat (pollinators, aquatic life) Implement the IPM plan	Planning for Organic Certification	Pesticide Use - Planning (any chemical sprayed on fields for bugs or weeds or fungus control)	
	Eliminate pesticide use or Organic certification	Pesticide Use - Implementation (any chemical sprayed on fields for bugs or weeds or fungus control)	

Appendix B. Conservation Leasing Templates

To encourage adoption of conservation lease provisions when managing public farmlands, the toolkit offers a conservation lease framework. Furthermore, this section provides specific leasing language and legal language lease templates as a starting point to incorporate into the lease agreements.

Following are specific provisions that can be included in a lease to promote and/or require conservation practices. We have noted where the provision fits in the framework laid out in the conservation lease framework.

Preamble

A preamble could be added to the beginning of the lease to explain the fundamental purpose. This could be important if the farmer does not comply with the conservation provisions in the lease, and the agency wishes to claim a breach of contract or not renew the lease. It could make it clear that a purpose of the lease is to build soil health by engaging in conservation practices. For example:

Whereas the parties wish to be stewards of the land and use sustainable farming practices to build soil health.

Term

To incentivize farmers to engage in better land management practices, a term of at least three years is preferred. In addition, automatic renewal can give farmers more secure land tenure as an incentive. For example:

The term of this Agreement shall run for 36 months, beginning on [DD MMM YYYY] and ending on [DD MMM YYYY].

After the initial term, the lease may be renewed for a term of [X] years.

Unless either the Lessor or Lessee gives notice to terminate at least [X] days before end of lease term, lease will be automatically renewed for [X] years.

Conservation Practices

Conservation Plans

Lessee and Lessor agree to meet with a Natural Resources Conservation Service (NRCS) Conservationist to develop a specific conservation plan for the land, which shall be implemented upon approval by Lessor and Lessee.

Tillage

Options	Language
Reduced till	Lessee shall till the land such that [X%] of crop residue remains on the farmland.
One-time till	Lessee shall only till the leased land once. No fall tillage is allowed.
No-till	Lessee shall not till the leased land.
With consent	Fall tillage is only allowed with the express consent of the Lessor.
Reporting	Lessee shall submit an annual report documenting the amount of tillage.

Pesticides

Options	Language
Restrictions on products	Lessee shall not use any of the following pesticides: X, Y... Lessee shall not use pesticides that contain: X,Y... Lessor and Lessee shall agree on any pesticide use.
Restrictions on timing	Lessee shall not use any herbicides that will have any residual carry over effect on any grasses or broadleaf plants beyond the last year of the lease.

Pesticides (continued)

Options	Language
Nothing synthetic	Lessee shall only use organic and naturally sourced pesticides.
Reporting	Lessee shall submit an annual report documenting the use of pesticides. This report will include the type of pesticide used, the amount, and the date used.

Cover Crops

Options	Language
Winter-kill	Lessee shall plant cover crops in the fall that are not expected to survive the winter but will provide sufficient biomass to protect the soil. (Ex: oats)
Over-winter	Lessee shall plant cover crops that are expected to survive the winter.
Lessee determination	Lessee shall use best efforts to plant a cover crop by (date) on xxx acres or xxx% of the leased acres. Specifics regarding species, planting method, termination method and date will be determined by Lessee.
Reporting	Lessee shall submit an annual report documenting the use of cover crops. Report will include type of cover crop and [other requirement].
Cost	<p>Lessor shall compensate Lessee at \$xx/acre for the purchase of seed, planting, management and termination of cover crops. Payment shall be made within 120 days after cover crops are established.</p> <p>Rental rate shall be reduced by \$xx/acre in each year of the lease to compensate for the cost of cover crop implementation and management.</p>

Options	Language
Cost (cont.)	The cost of implementing the cover crops (the purchase of seed and planting) shall be borne by Lessor and the cost of maintaining the cover crops shall be borne by Lessee.

Buffers, Filter Strips, and Field Borders

Options	Language
Existing buffer	<p>Lessee shall maintain the buffer put in place by Lessor.</p> <p>Lessee shall implement and maintain the buffer required by the Lessor. The cost of implementing the buffer shall be borne by Lessor and the cost of maintaining the buffer shall be borne by Lessee.</p>
No existing buffer	<p>Lessee shall maintain [specific buffer].</p> <p>Lessee shall implement and maintain [type of buffer].</p> <p>Lessee shall monitor [type of buffer] for noxious weeds and spot mow or apply appropriate herbicides.</p>
Filter strips	Lessee shall plant a strip of native vegetation at least [X] feet wide [specify location]
Field borders	Lessee shall plant indigenous vegetation at least [X] feet wide along the border of the tillable land where practicable.

Grassed Waterways

Lessee shall mow grassed waterways to no less than [X inches] in height.

Grassed waterways must be maintained to at least [X] feet wide.

Lessee shall monitor grassed waterways for noxious weeds and spot mow or apply appropriate herbicides.

Nutrient Management Plans

Lessee and Lessor agree to develop a nutrient management plan in accordance with NRCS standards.

Lessee will submit an annual soil test report to Lessor.

Rental Rate

A monetary incentive encourages farmers to engage in better land management practices and allows lessor and lessee to share the cost. For example:

If [grassed waterway or buffer] reduces the tillable acres, the rent will be reduced by [\$X] per acre lost.

The total rent amount shall be reduced by [X%] each year to compensate for the adoption and maintenance of cover crops [and any other practice added to the lease].

Lessee will be compensated [\$X or %Y of rent] per acre for the implementation of conservation practices set forth in the lease.

Enforcement

Some of the public agencies Delta is working with already have provisions in their leases that specifically require the farmer to comply with conservation provisions. All the agencies could include these types of provisions. For example:

Lessee shall comply fully with the provisions in this lease and failure by Lessee to so comply, unless weather or other events beyond the control of Lessee occur, shall result in the nonrenewal of this lease.

Lessee shall comply fully with the Conservation Plan and failure by Lessee to so comply shall be considered as a default under this agricultural Lease.

Lessor may terminate this agreement if Lessee fails to comply with the provisions of this agreement and after notice of non-compliance, fails to cure the default within [X] days.

In addition, the best method of enforcement includes conversation between Lessor and Lessee, so it may be advisable to include a provision that requires them to meet. For example:

Lessee will lead Lessor on an annual tour of the property, and the parties shall discuss management practices including specific conservation practices required by the lease.

Licenses v. Leases

We note that certain agencies use license agreements instead of lease agreements with farmers. A license may give the public agency more freedom and ability to enforce conservation provisions. A license permits a farmer to use the land for farming but does not transfer any interest in the real property.⁴ A license may be terminated without a “material breach” by the licensor and is usually for a shorter amount of time.⁵ Therefore, a license is easier to terminate and there are more chances to decide not to renew for another term.⁶ However, this type of arrangement may be contrary to the agencies’ stated desire to incentivize better management practices on the land.

Conclusion

Public agencies could revise their leases to require and incentivize more sustainable farming practices that build soil health. The above provisions are just samples for leasing language to be used in a conservation lease template. Delta Institute would again like to acknowledge that this product is the result of a collaborative effort with the Center for Agriculture and Food Systems at Vermont Law School.

Delta Institute collaborated with the Center for Agriculture and Food Systems (CAFS) at Vermont Law School to develop the lease templates above.

Additionally, CAFS has produced the Farmland Access Legal Toolkit (farmlandaccess.org) The toolkit helps farmers access, transfer and conserve farmland. It includes free tools, such as the web-based Farm Lease Builder, that help make complex legal processes easier and save farmers and landowners time and money on legal fees. The Farm Lease Builder allows farmers and landowners to go to an application on the website, answer questions related to their leasing situation, and produce a free farmland lease, which they can then take to an attorney for finalizing.

⁴ Land for Good, Farm Access Methods, (last viewed Dec. 8, 2019) <https://landforgood.org/wp-content/uploads/LFG-Farm-Access-Methods-Guide.pdf>.

⁵ *Id.*

⁶ *Id.*

Appendix C. Annual Farm Conservation Monitoring Report (Part 1)

[complete for each track/management unit]

Farmer Name		Farm Name	
Tract/management unit identifier		Acres	
Crop Planted		Yield	

Landowner will collect data on the following to verify implementation

Practice	Verification date	Photo (Y/N)	Photo date	Notes/observations
Residual Cover				
Filter Strip Width				
Field Border Width				
Grass Waterway Width				
Soil Compaction measurement				
Field Worm Test				
Tillage				
Other				

High Quality Adjacent (Y/N) _____ Invasive Species Adjacent (Y/N) _____

Appendix C. Annual Farm Conservation Monitoring Report (Part 2)

Landowner will collect soil samples and conduct soil testing

Soil Health Conducted (Y/N) _____ Lab used: _____ Collection Date: _____

Soil health test report available (Y/N) _____ Format: _____ Shared with farmer (Y/N) _____

Soil Health index _____

Soil organic matter _____

Farmer will provide data for the following

Report on nutrient application (Y/N) _____ Date: _____ See Nutrient Application Reporting Form

Report on pesticide application (Y/N) _____ Date: _____ See Pesticides Application Reporting Form

Cropping plan (Y/N) _____ Date: _____

Appendix D. Nutrient Application Reporting Form

Nutrient type	Fixed (F), variable (V) rate, and/or split (S) application (check all that apply)	Application Date(s)	Recommended Average Rate (from plan)	Actual Applied Rate*	Acres Treated	Field # (from FMP)
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					
	<input type="checkbox"/> F <input type="checkbox"/> V <input type="checkbox"/> S					

* If variable rate is used, attach a documentation with additional information about application rates and locations. Include maps and documentation from the vendor if application was contracted.

Appendix E. Pesticides Application Reporting Form

Brand or Product Name	EPA Registration Number (from label)	Application Date	Applied Rate	Unit/acre (Check)	Acres Treated	Field # (from lease agreement)
				__LB __OZ __PT __QT __GA		
				__LB __OZ __PT __QT __GA		
				__LB __OZ __PT __QT __GA		
				__LB __OZ __PT __QT __GA		
				__LB __OZ __PT __QT __GA		
				__LB __OZ __PT __QT __GA		
				__LB __OZ __PT __QT __GA		

Appendix F. Leasehold Improvement Addendum

Description of Farm: County _____ Township _____ Section (s) _____ Acres _____

1. In consideration of the agreements herein contained, the signers agree that the improvements listed in Section A (below) have been completed on the above-described farm.
2. It is agreed that the signers will share contributions and costs necessary to the completion of these improvements as set forth in Section B.
3. It is agreed that the estimated value or cost of the tenant's contributions will be listed in Section C.
4. It is further agreed that the estimated value or cost of the tenant's contributions will be depreciated at the uniform annual percentage rate listed in Section D. The year of first depreciation is to be listed in Section E.
5. If for any reason the tenant leaves the farm before the tenant's estimated value or cost (Section C) is fully recovered through annual use and depreciation (Section D), then the landowner will pay the tenant for the remaining undepreciated value of the tenant's investment.
6. It is agreed that each item as set forth opposite the signatures of the landowner and tenant will be viewed as a separate contract supplemental to the lease. New items may be agreed upon at any time during the term of the lease and recorded in the spaces below.

Section A Type and location of improvement	Section B Cost of contributions by landowner (L) or by tenant (T)						Section C Total cost of tenant's contribution	Section D Annual rate of depreciation (percent)	Section E Lease year when depreciation begins	Section F Date signed	Section G – Signatures I hereby accept my indicated share of the responsibility for the improvements recorded in Section A, which I have approved.
	Materials		Labor		Machinery						
	L	T	L	T	L	T					
											L. T.
											L. T.
											L. T.
											L. T.
											L. T.
											L. T.
											L. T.
											L. T.
											L. T.