Former Lake Shore Power Plant in Cleveland, Ohio.
Now decommissioned and demolished.

COAL PLANT REDEVELOPMENT ROADMAP: A GUIDE FOR COMMUNITIES IN TRANSITION

MAY 2018

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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 throughout the Midwest. Since our founding, we have engaged in community-driven redevelopment of vacant sites and brownfields, and we are a national leader in supporting coal plant communities in the transition away from coal. We help communities plan for the closure and potential reuse of their coal plants in ways that promote environmentally sustainable and socially equitable economic development. We do this work in broad partnership with community-based organizations, environmental justice organizations, coal plant owners, electric utilities, private foundations, local government agencies, elected officials, federal agencies, and labor organizations. We have worked with coal plant communities across the country from New York to Montana. Visit us online at www.delta-institute.org.

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Delta Institute would like to thank the Lansing Economic Area Partnership (LEAP) and the Waukegan Planning and Zoning Department for their early review and feedback on this document.

This document and the tools provided aim to be action oriented and to provide the most current, correct, and clear information possible, but with the transition ongoing, some information may have changed since publication. We encourage practitioners to reach out to us with questions, corrections, or to discuss implementation challenges. Please contact Emily Rhodes at erhodes@delta-institute.org.

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INTRODUCTION

The energy market in the United States is changing and with growing community and economic pressures, coal-fired power plants across the country are shutting down. The combined drivers of plentiful and relatively cheap natural gas, automation in coal production, aging coal plants, a fluctuating regulatory environment, and societal demand for cleaner energy have contributed to the decline of employment, production and generation in the coal industry.

Over the last fifteen years, communities from Appalachia in the East to the Powder River Basin in the West have experienced increasing rates of coal plant closures, leaving communities to a decades-long transition process to a post-coal economy. Among the many municipal challenges posed by the transition away from coal is the question of how to best approach the discussion of the impact this transition has on people and places along the way. Coal fired power plants are often significant employers and substantial contributors to the local tax base. Plants represent a part of the community history, and may be mourned when they close. However, coal plants also account for significant levels of pollution that can have a negative impact on the health of residents. With early planning, local governments can leverage this time of transition to move to a new, more diversified economy.

While the impact of a coal plant closure is different in each community, there are often shared barriers to site reclamation and reuse and common challenges associated with a decreased tax base and varying degrees of job loss. Many communities with decommissioned coal plants find themselves stuck in the early stages of redevelopment. Redevelopment is complicated because it takes place through a continuum of actions that are controlled by public, private, and community actors. However, strategies have emerged for municipalities to build capacity to plan for the closure, facilitate transparent stakeholder engagement, and create a streamlined redevelopment process that maximizes benefits to the community.

ABOUT THIS ROADMAP

Delta Institute works with coal communities in transition across the country and conducts research on various strategies being employed to support and enhance redevelopment efforts. Drawing upon this experience, we created the Coal Plant Redevelopment Roadmap to provide coal-impacted municipalities with information and resources to navigate the transition process. Throughout the document, community- and site-specific impacts are addressed in tandem to highlight that site reuse can and should be leveraged to create positive impacts across the community.

This roadmap is intended to inform the municipal government's planning and response to closure, recognizing their decision-making authority. The document may also be useful for other representatives of the community, such as environmental or community advocates, economic development organizations or citizens at large, who will be impacted by the closure and who will have a positive impact on the transition process. Examples of these representatives include school boards, local industry, chambers of commerce, local economic development districts, downtown development authorities, environmental groups, community foundations, and others. Each stakeholder offers expertise that can impact the transition process and outcome. Finally, this roadmap may serve to spur the local citizenry to take action, understanding how their voices can be integrated into the larger process and are necessary for lasting change.

This roadmap is divided into five modules that provide tools for municipal governments and others to assess their capacity, identify and engage key stakeholders, and plan for redevelopment of their coal plant site.

Each module offers guidance on a different phase of the transition process though a series of guiding questions, worksheets, and resource tables. The roadmap will lead users through the following modules:

1. Building a redevelopment and transition team
2. Assessing economic and environmental impacts
3. Determining site challenges and opportunities
4. Planning an engagement strategy
5. Developing reuse ideas from a shared community vision

Most transitions do not follow a straight path. Regardless of where a community is in the transition process, the Coal Plant Redevelopment Roadmap provides tools and resources that practitioners can use as their community embarks on this complex effort. The graphic that follows illustrates the high-level milestones for site-specific developments at a coal plant site, as well as the iterative and ongoing community process that takes place at each phase of the transition. Whether a community is home to an active coal plant, or the facility has already been retired and possibly even demolished, this graphic and the following modules will help community leaders know what lies ahead as they prepare for a post-coal future.

COAL PLANT REDEVELOPMENT

"Closure of local coal plant anticipated!"

COMMUNITY PROCESS

The community process can start prior to the announced closure.

1. Build leadership team
2. Assess impacts
3. Determine challenges & opportunities
4. Plan an engagement strategy
5. Develop reuse ideas

Take action

Transfer of Information & Ideas

SITE MILESTONES

The redevelopment process will occur in phases and may take several decades from the time planning for closure begins.

- Site is decommissioned
- Site is assessed for remediation & reuse
- Reuse priorities are created
- Site planning & marketing is completed
- Site is redeveloped

Supporting coal plant communities in transition.

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MODULE 1: BUILDING REDEVELOPMENT AND TRANSITION TEAM

Module 1 includes considerations for building a transition leadership team and determining what funding and technical assistance resources may be available.

Assessing internal capacity to plan for a coal plant closure will allow municipal leaders to identify existing skill sets and assets within the organization and the gaps that may need to be filled by outside resources. Private entities, community members, and advocacy organizations play an important role during the transition and provide essential skill sets, knowledge, and resources during the planning process. Assessing internal and external resources as soon as a municipality becomes aware of a closure can lead to a smoother transition process with increased consensus, more comprehensive data, and better community outcomes.

Defining Leadership

Identify a municipal staff member who can take ownership of the planning process, including the assessment of internal capacity and opportunities for bringing in outside expertise. Ideally, this person is a recognized, politically neutral leader or leaders, who is respected in the community and among municipal staff. They will need staff resources to carry out assessing, planning, and implementing tasks efficiently. This leader will be tasked with identifying and engaging stakeholders to address community impacts of coal plant closure and exploring reuse options throughout the transition process. They will also need to explore the local and regional context to understand the economic, environmental, and social impacts closure may have on the area.

Identifying Internal Capacity & Partnerships

Begin by looking at municipal staff for key skill sets and then bring in partners to add capacity where needed. Communities that would like assistance during this planning phase may consider engaging government and its resources at the county or state level. Other strategies may include finding funding sources and grant writers to bring in the dollars needed to build capacity. Additional public and private resources are listed in Table 1 of this module.

Figure 1 below outlines key skill sets needed throughout the transition, from the announced coal plant closure to site redevelopment. A list of potential players at the municipal level that can help fill these roles is also included. Depending on the scale of municipal resources dedicated to the transition, some communities may have staff to fill each role, while in other communities a few key members may fill multiple roles.

Skills and Knowledge		Potential Internal Resources
Leadership	Organizational Skills Team Building Partnership Development Project Management Communication	City Planning Staff City Engineer City Clerk City Manager Township Supervisor County Board Chairperson
Planning	Land Use Zoning Land Division Convening Contaminated Property Utilities Local Governmental Processes Demographics and Data Gathering	Planning Staff Zoning Board Planning Commission City Engineer
Development	Financing Options Tax Incentives Marketing Federal and State Grants Skill Shed Analysis Economic Impact Forecasting Negotiation	Local Property Assessors Economic Development Authorities
Community Outreach	Public Education Convening Meeting Facilitation Local Groups and Special Interests	Community Engagement and Outreach Department Planning and Development Staff Communications Staff Elected Official or Other Member of Staff
Brownfields & Site Remediation	Environmental Regulations Due Diligence Cleanup or Assessment Grants Brownfield Tax Incentive Phase I and II Assessments	Office of Sustainability Planning and Development Staff City Engineer Municipal Attorney or Environmental Attorney
Grant Writing	Writing Translating Federal and State Grant Requirements Managing Multiple Group Interests	Grants and Finance Staff City Clerk City Planner Communications Staff
Site Redevelopment	Financing Economic Development Real Estate Remediation of Contaminated Property Market Study	Planning and Development Staff Capital Improvement Team Asset Management Sustainability Staff

Technical Assistance and Funding Resources

After assessing internal capacity, identify what external resources may be necessary to move the planning process forward. Use the leadership team to research funding sources and technical assistance services, such as those included below in Table 1.

The resources listed in Table 1 are not intended to be exhaustive nor an endorsement of any agency or organization. It provides an overview of the types of resources that are currently available at the national level and insights into where resources might be located at the state and local levels. Each funder and organization has a mission and funding priorities. Communities should ensure that their goals are aligned with the funding they seek.

TABLE 1

Funding Organizations	Who Can Engage	Type of Services
Federal Departments and Programs		
Appalachian Regional Commission*	Distressed counties in the Appalachian Region	Grant funding for planning, economic development, education
Economic Development Administration; Economic Development Assistance Programs*	Local, county and state governments, nonprofits, Native American tribal organizations, public and state higher education institutions and district organizations of an economic development district	Grant funding for planning
Economic Development Administration: Assistance to Coal Communities*	Communities that can demonstrate job loss from coal industry decline	Grant funding for economic development
EPA Building Blocks for Sustainable Communities; SmartGrowth	Local, Native American tribal and county governments, nonprofits that have the support of the local government	Technical assistance for capacity building, stakeholder engagement
EPA Brownfields Grants*	Local, Native American tribal, county and state governments, council of governments, special districts, quasi-governmental agencies** and in some cases nonprofits	Grant funding for planning, investigation, cleanup and remediation activities, and workforce training, low cost loans for redevelopment
EPA Smart Growth Implementation Assistance	EPA regional staff identifies communities to assist	Technical assistance for policy analysis, stakeholder engagement

EPA Technical Assistance to Brownfields (TAB) Program	Local governments, nonprofits, community groups, and quasi-governmental agencies.	Technical assistance for planning, stakeholder engagement, grant writing, document translation, reuse visioning workshops; marketing analysis, introductions to government agencies
USDA Rural Development*	Communities, private entities, nonprofits, Native American tribal governments, depending on the program	Grant funding for planning, and low/no cost loans
US Department of Energy*	State, local, or tribal governments, private companies	Grant, loan, and financing programs
State Departments and Programs		
State Administered Community Development Block Grant*	Smaller units of general local government that are identified as entitlement communities by HUD	Grant funding for community development
State Department of Environmental Quality	Local governments	Technical assistance for remediation and redevelopment
State Commerce Department or State Economic Development Corporation	Local governments	Assistance for economic diversification
State Department of Workforce Development or Department of Labor	Services for individuals and employers, work with local governments	Technical assistance for workforce retraining
Regional and Local Departments and Programs		
Community Colleges, Higher Education	Local communities	Technical assistance for grant writing, convening, research, policy analysis
Local and regional planning departments or Councils of Government	Developers, landowners, the public, governments, regulatory agencies	Technical assistance for planning and project management
Private		
Private Consultants	Communities, developers, landowners, regulatory agencies	Technical assistance for planning, remediation, stakeholder engagement, marketing studies, site investigation, third party facilitation

Nonprofit Organizations and Foundations		
American Planning Association	Local governments, nonprofits, community groups	Technical assistance for planning, best practices guides
Center for Community Progress	Local governments, regional governments, state agencies/ divisions, housing authorities, brownfield redevelopment authorities or land banks	Technical assistance for property revitalization, capacity building, process analysis, facilitation, analysis
Community Foundations*	Communities, local organizations	Grant funding planning
The Conservation Fund: Conservation Loans Program & Natural Capital Investment Fund	Conservation Loans Program: Local governments, nonprofits Natural Capital investment Fund: Businesses in Appalachia and Southeast	Flexible financing. low-interest loans, and technical assistance
Contractor's Schools through local carpenters unions	Workforce development programs, utilities	Technical assistance for workforce retraining
Council for Adult and Experiential Learning	Works with public and private sectors to enhance learning opportunities for adults	Technical assistance for workforce retraining
Delta Institute, Chicago, IL	Local governments, community groups, nonprofits and private sector in the Midwest	Technical assistance for grant writing, stakeholder engagement, planning, research and data gathering
Urban Land Institute*	Local governments, private developers, community development corporations, and more	Grant funding for planning for land use and development

*Indicates an entity that may provide funding.
**Quasi-governmental agencies: may include housing authorities, land clearing authorities, brownfield authorities, and redevelopment agencies that are chartered or otherwise sanctioned by a state, government entities created by State Legislature and regional councils or group of general purpose units of local government.

Module 1 Action Items: Convene regular meetings with the redevelopment and transition team. Specific requests of team members may be to assist in data gathering efforts and developing a public engagement strategy (see Module 4). Holding regular meetings will allow the team to begin to discuss strategies for bringing in external partners, identifying funding opportunities such as those outlined in Table 1, and brainstorming redevelopment possibilities.

MODULE 2: ASSESSING ECONOMIC AND ENVIRONMENTAL IMPACTS

Module 2 includes a series of guiding questions to assess the economic and environmental impacts of the coal plant closure. Examples of where to find data and potential sources of information to answer each question are also included.

Municipal leaders can prepare for transition by quantifying the potential impact a coal plant closure will have on the community and identifying the local and regional assets that will allow the community to support displaced workers or attract new industries. Impacts vary depending on economic diversity, size of the municipal budget, and levels of site contamination, among other factors. Gathering data and identifying assets can assist in communicating the impact of the coal plant closure to stakeholders and in developing a transition strategy based on the opportunities and strengths identified.

Assessing Potential Losses

Below are guiding questions and potential sources of information to help assess community and economic impacts on employment, tax base, and the environment. This information is not always easy to obtain. Utility companies may provide information on their transition plan or the number of employees impacted by the closure in news articles, on websites, or in press releases. However, the availability of this information will vary by company. Preparing for transition will be an iterative process as information about the closure becomes publicly available or the utility provides needed information, allowing the community to make informed decisions about the transition.

The examples in Table 2, Table 3, and Table 4 illustrate where data has been found for communities experiencing coal plant closures. The tables can provide insight into where you can search to obtain similar information to quantify the impact to your community.

TABLE 2

EMPLOYMENT		
Guiding Questions	**Potential Sources of Information**	**Examples**
How many people are currently employed at the coal plant (direct jobs)?	• Utility representatives • Unions • Federal Energy Regulatory Commission (FERC) • Economic modeling tools • Utility website	FirstEnergy Profile on Bruce Mansfield Plant
How many of the current plant employees live in your community (direct jobs)?	• Utility representatives • Unions • FERC • Economic modeling tools • Survey of employees	
What other industries are dependent on the coal plant, and what would the impact to these industries be (indirect jobs)?	• Consultant • Economic modeling tools • University economist	Check with local Economic Development District for tools. Examples of an economic modeling tool include REMI (Regional Economic Models, Inc) or IMPLAN (Impact Analysis for Planning).
What is the anticipated financial loss to the community in induced jobs or economic losses?	• Economic modeling tools • University economists	Check with local Economic Development District for tools. Examples of an economic modeling tool include REMI (Regional Economic Models, Inc) or IMPLAN (Impact Analysis for Planning).
Has the utility indicated how many people will be transferred to other facilities?	• Utility representatives • Press releases • Statements in local newspapers	Consumers Energy shows road map for B.C. Cobb shutdown and future use Consumers Energy Commemorates Final Freighter Delivery to B.C. Cobb Plant
What are the skillsets of employees that may be displaced?	• Workforce development practitioners • Economic development agency	Economic Diversification in Coal-Reliant Regions' Webinar - NADO

TABLE 3

TAX BASE		
Guiding Questions	**Potential Sources of Information**	**Examples**
Does the utility own other property nearby? How many acres does the utility own?	• County Assessor • Equalization Department • Auditor's office	United States County Assessor Directory (County Assessor's GIS Sites may allow search by owner) AccessMyGov.com - Municipal Directory (Municipalities may charge an access fee)
How much does the utility pay in Personal Property Tax? (Equipment)?	• County Assessor • County Auditor • County Sheriff • County Treasurer • Equalization Department • Municipal finance staff	
How much does the utility pay in Real Property Tax (Land)?		
Does the utility make any payments in lieu of taxes (PILOT)?		Michigan South Central Power Agency Financial Statements
Will the taxable value change as the land use changes for the site?		
Is there a phase out agreement for tax purposes?		Lawmakers approve funding to help Town of Tonawanda & KenTon schools
How does this tax loss impact your general fund?		Despite Trump promises, uncertainty reigns in Ohio Communities near coal plants - MidwestEnergyNews.com

TABLE 4

ENVIRONMENT AND ENERGY		
Guiding Questions	**Potential Sources of Information**	**Examples**
What is the environmental impact of the coal plant closing on soil, air, and groundwater?	• Local environmental interest groups • State Environmental Agency	Rising from the ashes - GRIST
Are there permit violations on record?	• State Environmental Agency • US EPA Regional Office • Local agencies involved in permitting such as Department of Health (Air Quality), Department of Housing/ Buildings (Building/Demolition)	
Has a Phase I or Phase II Environmental Site Assessment been completed?*	• State Environmental Agency • Site owner • US EPA Regional Office	Check with local Economic Development District for tools. Examples of an economic modeling tool include REMI (Regional Economic Models, Inc) or IMPLAN (Impact Analysis for Planning).
Is there a site remediation objectives report or remediation plan? Have there been any remedial actions performed at the site in the past?	• Site Owner • State Environmental Agency • US EPA Regional Office	Check with local Economic Development District for tools. Examples of an economic modeling tool include REMI (Regional Economic Models, Inc) or IMPLAN (Impact Analysis for Planning).
Who is responsible for the clean-up?	• State Environmental Agency • Site owner • US EPA Regional Office	Consumers Energy shows road map for B.C. Cobb shutdown and future use Consumers Energy Commemorates Final Freighter Delivery to B.C. Cobb Plant
Were the byproducts of coal combustion (coal ash) stored on site?	• Site Owner • US EPA Regional Office • City or County Environmental or Building Department • US Energy Information Administration • Aerial photos of site	Economic Diversification in Coal-Reliant Regions' Webinar - NADO

Is the site near a waterway or source of drinking water?	• Local health department • Sanitary District • Local planning or sustainability department • Local GIS department	Largest U.S. Coal Ash Pond to Close, But Future Rules Still Undecided Human and Ecological Risk Assessment of Coal Combustion Wastes
What is the impact to the cost of energy if drawing from a new source?	• Public Utility Commission • Regional Distribution regulatory group (MISO, PJM, for example)	Federal Energy Regulatory Commission: Regional Transmission Organizations/Independent System Operators

*See Module 3 for a discussion of Phase I and Phase II environmental site assessments.

Module 2 Action Items: Aggregate the data collected to tell the story of the potential impact of coal plant closure on your community. Developing a narrative around the impact can be used to apply for grant funding and help communicate the impact to partners. Not all information will be available when you begin planning, therefore, it may be helpful to create a list of data that is missing and additional questions that have come up during data gathering efforts. This is an iterative process and you can expect information and options to change as new information becomes available.

MODULE 3: DETERMINING SITE CHALLENGES AND OPPORTUNITIES

Module 3 includes a series of guiding questions to assess the barriers and opportunities to site reuse.

Assessing existing site and community conditions, challenges, and opportunities can help narrow the site reuse options following decommissioning and demolition, as well as identify marketable strengths and site potential. Site reuse ideas should be explored in tandem with the environmental assessment and remediation process, because the level of remediation needed is often determined by the end use of the site. In some communities planning for the long-term reuse of the site, the community may desire a higher standard of clean-up than the immediate proposed reuse requires. Site reuse ideas should take into account both intermediate reuses as well as long-term redevelopments.

In determining potential reuses and redevelopment strategies, municipal leaders and community advocates should consider land factors, such as site history, zoning, proximity to residential and other incompatible uses, nearby assets, and site ownership. In addition to land factors, the transition team should consider the economic feasibility of different reuse ideas early in the process, which can help ground community conversations and manage expectations for the future use of the site.

The following series of questions can be used to guide discussions with the transition team and to collect information that can be presented at an early community meeting. Ideally, the site owner will participate in this process, but if not, the exercise still has community value. The answers to these questions can help to create a shared understanding of site characteristics, to identify reuse options that are financially and politically feasible, and to illuminate local and environmental regulations that may impact the redevelopment.

Guiding Questions

The questions below can be used to determine if the site characteristics and community context presents a challenge or an opportunity for the redevelopment of the coal plant site.

Ownership

- Who currently owns the site? Is the site publicly or privately owned?
- Does the owner have a vision for the site's future? Does the owner want to sell the site? Are they engaged with the community?
- What else should we know about the ownership of the property? (Examples may include tax payment status, bankruptcy proceedings, multiple owner status.)
- What can the community control? What can't the community control?
- Does the community want to own/control the site?

Site History

- Who has owned the site over the last 50 years?
- What were previous uses on the site? (Other industrial uses may suggest additional contamination.)
- Is there any environmental documentation available? [Documentation may include a Phase I, Phase II, or Baseline Environmental Assessment (BEA). If so, can the community obtain these documents? If not, what needs to be known about the contamination historically and now?]
- What other information is important to collect?

Infrastructure

- What are site limitations and assets? For example, size of parcel, former use, transmission lines or other infrastructure that exist and may need to remain on site, water intake, structural integrity of the building?
- Is there a historic designation? If so, what type of designation? What are the implications of this?
- Is this site, structure, or features something the community wants to preserve?
- Are there specific assets that can be leveraged for growth? (For example, transmission lines, water intake, water access, focal point of the community.)
- Are there specific assets that your community needs? (For example, open space, access to water, congregation site, view shed.)
- Will the transportation network need to change for reuse? If so, how will it change and what is the impact?
- What other infrastructure challenges or opportunities should be considered?

Land Use

- Is the land use type industrial, residential, commercial, or mixed?
- What land uses surround the site? (For example, are there nearby industrial sites, community attractions, neighborhood, or port areas?) How might the community leverage the surrounding land uses during redevelopment?)
- Is there a Master Plan or subarea plan that addresses this area?
- What is the zoning for the area?
- What zoning changes are necessary to make this site more marketable?
- Is there a community recreation plan? What does it say about the area?
- What else needs to be considered with respect to land regulation for this community?

Financing

- What tax code incentives are relevant to your redevelopment options?
- How can the municipality influence the project cost? (For example, efficient development codes, development cost offsets, operating cost offsets, public private partnerships, placemaking investments, need direct subsidy)
- What are the market conditions that may influence the feasibility of varying reuse ideas? For example, are there political or economic conditions that make industrial, commercial, residential, agricultural, or mixed use redevelopment more desirable or feasible?
- Is the community eligible to apply for US EPA funds for brownfields redevelopment? (Including Assessment, Cleanup & Revolving Loan Fund Grants, Area Wide Planning Grant, Environmental Workforce Development Job Training Grants)

Environmental Site Assessment and Remediation

Addressing existing contamination on coal plant sites can be a considerable challenge to redevelopment. Below is an overview of the site assessment and remediation process. After reviewing this section, municipal and community leaders navigating this process should contact their state environmental agency for further guidance. When building your team, internal team members with brownfields expertise can play a key role in environmental site assessment and remediation.

Until appropriately remediated, contamination present on a site can be a limiting factor for reuse. Common forms of contamination within the building are asbestos and polychlorinated biphenyls (PCBS.) During plant decommissioning, ash, residual coal, solvents, and fuels are removed from the site.

Contamination around the site may come from spills or deposition of airborne contaminants, such as mercury. Coal ash, a byproduct of coal combustion, may be stored on site in ponds or landfills. The coal ash should properly remediated. For example, depending on the site, the ash may be able to be removed or the coal ash pond could be appropriately capped.

Phase I - Environmental Site Assessment (ESA)

Phase I ESAs include a review of records, a visual site inspection, and interviews with those knowledgeable about the site to identify whether the site has any Recognized Environmental Conditions. A Phase I ESA should be performed by a licensed environmental professional according to American Society of Testing and Materials (ASTM) standard E1527-13 prior to taking title to a site to afford federal liability protection and to allow the site to be eligible for funding from some state and federal agencies.

Phase II - Environmental Site Assessment (ESA)

During a Phase II ESA, sampling of site soils, groundwater, surface water and or vapor and analysis of samples by an accredited laboratory is used to confirm the presence of any potential hazards identified during the Phase I ESA. A Phase II is also onducted by a licensed environmental consultant.

After hazardous substances have been identified and the extent of the contamination has been determined, the environmental consultant develops the remediation (or cleanup) objectives and a cleanup plan. The objectives and the specifics of the cleanup plan are often based on categories (such as residential, commercial or industrial) for desired re-use of the site. Approval of the plan by the state environmental agency may be required, and in some instances approval by US EPA may be needed if a site is very contaminated and subject to federal action. Often the site cleanup may be delayed until a new buyer or new user for the site has been identified. However, as long as there are no direct threats to human health or the environment, and depending on the guidance and regulations of a state's environmental agency (or US EPA if applicable), a site may sometimes be held for years without completing the cleanup necessary for reuse. Every situation is unique, and the assistance of legal counsel and environmental consultation may be helpful to move into the tasks of remediation if the municipality owns the site or will be taking ownership of the site.

Module 3 Action Items: Based on your the answers to the guiding questions, catalog and describe the site's strengths and limitations and what the community could do to enhance or mitigate them. This exercise can also illuminate how the redevelopment of the coal plant site can fit into the larger community context or spur planning efforts beyond beyond the former coal plant parcels. For more information on remediating and redeveloping a brownfield site, contact your regional EPA office.

MODULE 4: PLANNING AN ENGAGEMENT STRATEGY

Module 4 outlines key considerations for building a stakeholder engagement strategy that is transparent and fosters representation from a diverse set of parties.

Planning for a successful coal plant transition is a multi-stakeholder process that requires cooperation and diverse representation among the private sector, community stakeholders, and governmental officials. Prioritizing consensus-building strategies throughout transition planning can result in a more inclusive and streamlined redevelopment process.

Developing Principles for Public Engagement

Consider building an engagement strategy around a core set of shared principles. Coal plant transitions impact a wide variety of stakeholders, from community organizations, residents, municipal governments, and environmental regulators, to private property owners and developers, to unions and investors. A cohesive and coordinated approach sets a level playing field, allowing the parties involved to have a clear understanding of how the engagement process will proceed. Resources such as the International Association for Public Participation may be used as a starting point when developing principles for public engagement. Municipalities should determine how shared principles will be used and revisited throughout the course of the coal plant redevelopment and transition process. Communities may already have a set of principles to guide engagement or may want to craft principles with community members specifically to address the coal plant closure. Core principles for community engagement, such as the ones created by the City of Minneapolis, can be used to draw on stakeholder expertise and shape government decisions.

The City of Minneapolis's Core Principles for Community Engagement

- Right to be involved – Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
- Contribution will be thoughtfully considered - Public participation includes the promise that the public's contribution will be thoughtfully considered.
- Recognize the needs of all - Public participation promotes sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision-makers.
- Seek out involvement - Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
- Participants design participation - Public participation seeks input from participants in designing how they participate.
- Adequate information - Public participation provides participants with the information they need to participate in a meaningful way.
- Known effect of participation - Public participation communicates to participants how their input affected the decision.

Fostering Diverse Representation

Stakeholders are individuals or groups who are impacted by the coal plant closures and site reuse and need to be active participants in how decisions about the transition process are made. Common players in the coal plant transition process include local, state, and federal governments; private entities, such as property owners, private developers, and labor and workforce development entities; and community stakeholders including community leaders, advocacy organizations, and private residents. Each party brings a valuable perspective and knowledge of the community to help shape the transition process and may only need to be involved at specific points of the process.

Table 5 provides a sample list of stakeholders to engage throughout the transition. This list is not exhaustive, and each community should work with partners to identify stakeholders, particularly underrepresented populations. Every situation is unique, and the assistance of legal counsel and environmental consultation may be helpful to move into the tasks of remediation if the municipality owns the site or will be taking ownership of the site.

TABLE 5

List of stakeholders	Interest in the transition
Federal and State Government	
United States Environmental Protection Agency	Manages National Environmental Policy Act (NEPA) requirements, EPA permits and any other federal regulatory issues
State Department of Environmental Quality	Manages state-issued permits and agreements such as Remedial Action Plans
State Department of Transportation	Manages the impact on transportation demand - rail, waterways, roads
State Department of Workforce Development	May provide training (or retraining) programs/ orientations for displaced workers, job placement.
State Finance Authority	May help secure financing for redevelopment and assist with tax impacts for properties in Brownfield Authorities
State Historic Preservation office	May provide tax incentives for redevelopment
State Housing and Community Development Authority	May provide tax credits for redevelopment
Local and Regional Government Organizations and Departments	
Health Department	Interest in public health impacts/benefits
County Department of Workforce Development	May provide training (or retraining) programs or orientations for displaced workers, job placement
Local Chamber of Commerce	Interest in businesses directly or indirectly affected by coal plant closure
Metropolitan Planning Organizations	Interest in regional impacts and implications of closure and reuse
Representatives of services that will be impacted (such as contractual public services)	Interest in impact to budget

School Board	May provide active student count; May have knowledge of impact on school funding
Private Entities	
Community Development Corporation	Impact on tax base; Potential redevelopment; May assist in assembling financing package, potentially hold bonding authority, determining the financial feasibility of a reuse
Private Developers	Gauge interest/ideas/needs; Employee skills needed
Site Owner	Disposition of site; Gauge interests/priorities; Clean-up timeline
Utility's Community Engagement Staff	Manages community relationships; Disseminates information
Workforce Development Organizations	May provide training programs/orientations for displaced workers
Community Organizations and Actors	
Environmental and Community Advocacy Organizations	Can ensure equitable community development; Organizes residents; Knowledge of environmental impacts; Disseminates information
Faith-based Organizations	Organizes church community; Disseminates information; Provides an alternative avenue for residents to have a public voice
Local Business Owners	Change in demand for their goods and services as a result of coal plant closure
Local Residents	Impact on jobs; Impact on tax base; Non-quantifiable impacts
Local Universities	Has research capacity; Can help prepare for local jobs, identify and write grants
Neighborhood Associations	Disseminates information; Organizes
Labor Organizations	Impact to workers, voice for worker needs

Identifying Strategies for Engagement

By including public engagement as a central theme in transition planning, municipal leaders can promote transparency around how decisions are made and ensure reuse strategies reflect the community's vision. To begin developing a robust community engagement strategy, work with the transition leadership team and stakeholders to determine how, when, and how often information sharing will take place. Provide multiple opportunities for engagement across numerous communication platforms to ensure hard-to-reach communities and a diverse set of stakeholders are engaged in the transition planning. When creating a public engagement strategy, keep in mind:

- How to balance residents representing themselves versus organizations claiming to or actually representing residents;
- What communication strategies and media outlets can be used to effectively and comprehensively disseminate information to residents and organizations;
- What staff resources, volunteers, or other organizations (civic groups, faith based, etc.) can assist with outreach

The sample strategies below can inform your approach to community engagement. Use the transition leadership team (Module 1) and conversations with stakeholders to determine the most effective strategies for your community.

Neutral Third Party

- A neutral, third party facilitator is a common part of consensus building and can be a strategy to minimize communication barriers and biases as communities work towards creating a shared vision.
- Establish a third party facilitator to communicate facts, manage expectations, incorporate experts, and guide an inclusive discussion where a diverse set of voices are heard.

Advisory Groups

- Establish a Citizen's committee comprised of a diverse set of representatives from each sector of the community to participate in the major discussion points on an ongoing basis. This group may request or be given decision-making opportunity at some stages of the project.
- Convene a Task Force based on the team you built in Module 1 that can field questions from the public and present relevant information.

Events

- Conduct a tour of the site with the proposed changes highlighted or marked on the property so people can visualize better what the change means.
- Host a conversation with community groups that request it or have concerns specific to their population. Conduct additional discussions on-site that address specific needs with staff.

Information Sharing

- Make information available by having all informational items displayed at public meetings, duplicated on a website, and available to take home on a map and in print.
- Establish a page on the city and county websites for the project with notes from the meetings, schedules for future meetings with agendas as they become available, all maps and graphics discussed, and a portal with contact information with a phone number and email for questions or concerns.

Neutral Third Party Example: Fisk and Crawford Reuse Task Force

Delta Institute acted as a neutral facilitator in the process of engaging a multi-sector stakeholder task force to align around guiding principles for reuse of the shuttered Fisk and Crawford coal plants in Chicago, IL. This process highlighted how outside facilitators can help the process run more smoothly by gaining "a deep understanding of the different interests in play and manage group conversations accordingly." This process involved local officials, the site owners, community organizers, and organized labor.

To learn more about this process, read the Final Report from the Fisk and Crawford Reuse Task Force.

Meetings

- Provide a designated time on government meeting agendas to update the public. Include the redevelopment proposal on the agenda at every City Council, County Board, Planning Commission and Economic Development related meeting. Update the public and those serving on the boards and council on the current status of the project. Continue providing updates until project completion.
- Hold a special meeting with the proposed alternatives available to allow residents to discuss, learn, and weigh in on the preferred alternative. It may be necessary to hold several special meetings to discuss specific aspects of the project and to reach underrepresented populations.
- Provide time for comment by allocating adequate time at all meetings to answer questions, discuss how the public can be involved, and the timeline of the project.
- Have staff from all agencies that may have a role in the development of the project on hand to answer questions, as appropriate during the process.
- Be attentive to the nearest neighbors. Property owners within 500 feet of any portion of the site should receive an individual letter describing the purpose of the meeting and their opportunity to participate.

Module 4 Action Items: From the list of stakeholders, identify the regional and local stakeholders that should be engaged as part of your transition process. The sample strategies can be used to inform your community engagement approach to connect with the stakeholders you've identified. After working with the redevelopment and transition team (see Module 1) and community members to develop an engagement strategy, continue to convene stakeholders in an ongoing and meaningful way that makes sense for your community.

MODULE 5: DEVELOPING REUSE IDEAS FROM A SHARED COMMUNITY VISION

Module 5 outlines a process for reviewing existing plans, assessing community assets and engaging community members in order to create a shared vision for reuse. Sample agendas are included to use as a guide for community discussions.

Developing reuse priorities involves balancing what is possible given site ownership, financial and regulatory constraints, and a shared vision for the future of the site and the community. Begin developing reuse ideas by reviewing existing plans to gain insight into priorities and conducting a community assessment to identify assets to leverage. These steps help frame reuse ideas and inform community engagement and consensus building.

Reviewing Existing Plans

Many communities have already undertaken extensive planning processes to create comprehensive or master plans for the community. These documents can be useful resources, often providing background on the previous land use planning, successful stakeholder engagement strategies, and shared community priorities. Not only can existing plans provide a basis for a community to build a shared vision during the coal plant transition process, proof of alignment with existing community plans may actually be required by some federal agencies when providing grant funding.

Quantifying Incentives

Identify incentives that may be available to offer to potential developers. Incentives can be a tool to encourage development aligned with community redevelopment goals and objectives. Incentives may include state grants, tax increment financing (TIF) districts, revenue bonds, zoning changes, or assistance with environmental remediation. Municipal leaders can be creative in thinking through what incentives make sense for their community to offer to potential investors and should use the coal redevelopment and transition team to determine the impact offering various incentives may have on the community.

Assessing Community Assets

At each stage of the transition, different assets may be used to overcome barriers and inform the transition strategy. A community asset can be anything that improves the quality of life in the community. Assets can include cultural and entertainment venues, educational institutions, medical facilities, thriving industries, strong workforce, supportive infrastructure, natural resources, or municipal resources, among others.

Use the questions below to identify current community assets and possibilities for growth. Think about documenting assets in a way that can be shared with partners and potential developers. This exercise can inform discussions regarding reuse options and support the development of a community vision with stakeholders.

Evaluating Community Assets

What competitive advantages does your community/municipality/region possess?

What assets would you like to build?

What has been done to leverage these assets?

Assets can be found throughout your community. Does your community have the following?


Active cultural or entertainment centers


Well-known educational institutions

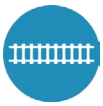

Medical facilities


Strong retail centers


Robust service economy


Municipal building


Green space and recreational facilities


Key transportation infrastructure


Various water or other natural resources

Creating a Shared Community Vision

Developing a vision based on a clear set of goals and objectives provides context for decision-makers to prioritize projects that will deliver public benefits and attract private capital. Creating a shared and realistic community vision will help guide the redevelopment process and ensure that the interim and end uses of the former coal plant site align with what is feasible as well as with the community's needs. The social, economic, and environmental impacts, along with the community assets can be used to inform discussions on the vision for the future of the site. Potential site reuses can include commercial, residential, manufacturing, recreational and open space, cultural or community space, or alternative energy.

To help translate community vision statements into action, build a team of internal and external experts to attend public meetings and assess what it would take financially and politically to move a reuse idea forward. To identify candidates who could play this role, revisit the team formed in Module 1. Tasks could include reviewing external communication to ensure clear messaging and attending public meetings to listen to ideas and answer questions about the feasibility of potential reuses. Staff experienced in planning, economic development, brownfield remediation and redevelopment can help answer questions about redevelopment proposals, set expectations on the feasibility of varying end uses, and speak with concerned citizens on site remediation or talk through overarching principles of economic development.

There are multiple ways to approach the development of a shared community vision. Three approaches are outlined below.

Community Charrette	Develop Guiding Principles	Community Visioning	Other Methods
A charrette is a public meeting or workshop devoted to a concerted effort to solve a problem or plan the design of something. These often involve hands-on drawing and planning for a site. Charrettes are valuable to educate the community about the site, set realistic expectations, and provide a forum for ideas to be expressed as a drawing of the site.	This process is often conducted by a neutral facilitator, through a series of discussions about the desired ultimate performance qualities and impact the site will have on the community, as opposed to identifying a specific use.	This is the process of developing consensus about what future the community wants, and then deciding what is necessary to achieve it. A vision statement captures what residents most value about their community and the shared image of what they want to see in the future.	There are numerous ways to engage stakeholders during the visioning process, and each community may choose to use its own method.

Meeting Sample Agendas

Creating a shared community vision and guiding principles should be a collaborative process. However, the type and frequency of meetings will vary by community needs, when information about the site becomes available, staffing resources, and meeting time constraints. In addition, the process will vary depending on the municipality's relationship with the coal plant site owner. In some cases, the site may be municipally owned or owned by a private entity who is willing to engage in the creation of the guiding principles and community vision. In cases where the owner is less willing to participate in community engagement, the vision and guiding principles can be leveraged to advocate for community input in the redevelopment. Regardless of the relationship with the site owner, it is important to set expectations with everyone involved.

Sample agendas can be used for planning and facilitating your stakeholder meetings with the goal of developing reuse priorities and guiding principles. Agendas can be reordered, combined, or modified to meet the individual needs of each community.

1. Initial Community Meeting Agenda

Meeting Goals: Provide an opportunity for site information to be shared with the community. At this meeting, work with stakeholders to determine the most effective methods of engagement including how to advertise meetings, and what format and how often future meetings should take place.

- Introductions ← *Introduce internal and external partners, who they represent and why they are involved*
- Presentation
    - Existing conditions of the site ← *Communities may or may not have all this information at the time of the initial community meeting*
        - Site overview
        - Remediation plans
        - Site marketing plans
        - Timeline
    - Community Impacts ← *Share information gathered in Module 2*
    - Community Assets Narrative ← *Share information gathered in Module 3*
- Discussion and questions
- Next steps ← *Announce the next meeting date, if known*

After the meeting: Provide stakeholders with an opportunity give feedback on the meeting. This can be done via paper survey as the meeting ends, or as an online survey in the days following the meeting. Work with internal partners to adapt communication and engagement strategies based on the community's input.

2. Community Visioning Agenda

Meeting Goals: Gather information on what opportunities residents see in the community and collaboratively develop a vision to transition the whole community toward thriving economies. The meeting facilitator should state the rules for engagement during the meeting, stressing that these are intended to be discussions and not debates. All ideas should be entertained. If time allows, this agenda can be combined in the Initial Community Meeting. If community visioning has already taken place and has been documented as part of an earlier planning process, this meeting may not be necessary.

- Introductions and overview ← *Introduce internal and external partners, who they represent and why they are involved. Share any updates since the Initial Community Meeting.*
- Breakout Session ← *If a large group is present, have facilitators in each subgroup guide discussion so there is meaningful information to share at the close and no one person dominates the discussion.*
    - Sample break out session questions:
        - What do you see as assets to the community?
        - What types of economic opportunity would you like to see in the future?
        - What concerns do you have for the community's future?
        - What is realistic?
- Discussion and questions from residents ← *Each small group reports-out to the larger audience. Compile and aggregate ideas into groups that reflect the goals of the meeting.*
- Next steps ← *Announce the next meeting date, if known*

After the meeting: Compile input gathered at the meeting. Document the themes and ideas from the breakout sessions to develop the community vision that will inform reuse options.

3. Identifying and Discussing Issues Agenda

Meeting Goal: Determine what challenges may exist in the path to redevelopment, economic diversification, and reemployment. These should be based on the vision the community has for the future as identified in the Community Visioning meeting or in prior planning processes.

- Introductions ← *Introduce internal and external partners, who they represent and why they are involved. Share any updates since the last meeting.*
- Presentation
  - Site Ownership ← *Address status with owner (unless municipally owned) and set expectations*
  - Brownfield Remediation Process ← *What clean-up is required? What is the timeline?*
  - Existing Infrastructure ← *Is the site on a body of water? Is there a rail line nearby? Is there good highway access to/from the site?*
  - Financing ← *What incentives may be available for redevelopment? What will be the challenges to obtaining financing?*
- Discussion and questions from stakeholders to identify potential additional issues that were not included in the presentation.
- Next steps ← *Announce the next meeting date, if known*

After the meeting: Publicize all information shared in the meeting in a concise and logical way. Show how each meeting builds from the previous meeting and where the process will go from here. It is beneficial to provide a timeline of events, versus a deadline of events. As information and issues arise, there may be a need for other items to be discussed, or other experts to consult.

4. Developing a Vision for the Site and Informing Guiding Principles Agenda

Meeting Goal: Engage the community in developing a shared vision for the future use of the site

- Introductions ← *Introduce internal and external partners, who they represent and why they are involved. Share any updates since the last meeting.*
  - Presentation:
    - Overview of the Site
      - Site Ownership and Status
      - Site Limitations
      - Site Assets
  - Revisit Community Assets ← *Invite a community partner to present*
  - Present Examples of Coal Plant Reuse ← *See Delta Institute's In Transition: Stories from Coal Plant Communities for examples*
- Breakout session ← *Provide maps of the site with relevant information such as ownership split by parcel, location of coal combustion residual storage, and prominent land uses directly surrounding the site.*
  - Engage participants around reuse ideas
    - What would you like to see happen at the site?
    - How is the site connected to the adjacent communities? To the rest of the city?
    - What should the space be used for?
      - Jobs and types of businesses?
      - Waterfront access/recreation?
      - Historic buildings preserved?
      - Commercial/residential/industrials?
- Next steps ← *Announce the next meeting date, if known*

After the meeting: Compile notes on community priorities and draft guiding principles for redevelopment.

5. Refining the Guiding Principles Agenda

Meeting Goal: Present guiding principles for redevelopment. Set expectations on the owner's adherence to recommendations from the community based on current relationship with owner.

- Introductions ← *Introduce internal and external partners, who they represent and why they are involved. Share any updates since the last meeting.*
- Presentation:
  - Updates on site and remediation efforts ← *If available*
  - Draft Guiding Principles for Redevelopment
- Provide time for discussion on guiding principles ← *If a large group is present, consider breaking into smaller groups to discuss the guiding principles. Then reconvene and allow time for each group to provide feedback.*
- Next steps

After the meeting: Refine the principles and provide the opportunity for public comment. This process may require more than one public touch point to refine guiding principles. Publish the principles online and share in future meetings with site owner.

Example of Guiding Principles: Fisk and Crawford

1. The Fisk and Crawford sites provide opportunities as useful community assets that can enhance the ability of local residents and businesses to live, work and play in a healthy environment.
2. Broad-based stakeholder input on the redevelopment of the sites should be encouraged, building upon existing forums and agreements, but including new parties as the project evolves. Such collaboration is likely to lead to the best outcome for all involved.
3. As sites are redeveloped and used in the future, pollution and waste should be minimized, with an emphasis on sustainability.
4. Located in industrial corridors with ongoing operation of grid infrastructure at both locations and a peaking plant at Fisk, the sites are not suitable for residential development. Guiding Principles
5. Redevelopment provides an opportunity to create quality, living wage jobs for residents of these communities.
6. Redevelopment of each site may include parceling the sites for more than one use, owner or occupant.
7. Neither site is intended to be used entirely as a park or open space; however, where feasible there should be public access to the river and canal.
8. Potential sources of public and private resources for reclamation and redevelopment should be identified early and actively pursued.
9. Parties involved in future redevelopment should be aware that the communities prefer clean, advanced light manufacturing, and not large scale retail, for the sites.

Module 5 Action Items: Create guidelines to determine how you will incorporate the community's input and vision into plans and actions that are developed during the transition process. Although each meeting you convene may address a specific step in the redevelopment timeline, ensure that the community vision is revisited throughout the coal plant redevelopment transition process. Sample agendas can be used for planning and facilitating your stakeholder meetings with the goal of developing reuse priorities and guiding principles. Agendas can be reordered, combined, or modified to meet the individual needs of each community.

CONCLUSION

While the transition away from coal fired power plants is still ongoing in many places and will continue to affect communities into the future, there are numerous examples of former coal plant site redevelopments and reuses that have resulted in sustainable development and economic diversification in the community. Lessons can be learned from how these places engaged stakeholders, developed funding packages, and planned for redevelopment. For stories and examples from communities across the country, see Delta's report: In Transition: Stories from Coal Plant Communities.

The redevelopment process will occur in phases and may take several decades from the time your community begins planning for the closure. Using this roadmap to guide communities through the transition can help expedite the redevelopment process and ensure that the economic and environmental opportunities presented by a coal plant closure are realized. In Delta's experience providing technical assistance and facilitating community conversations to develop reuse ideas for coal plant sites and other brownfields, we have found that the modules outlined in this roadmap can be helpful in working towards a reuse that is an asset to the community.

To learn more about Delta Institute's approach and experience, or to explore opportunities for partnership, please reach out to Emily Rhodes at erhodes@delta-institute.org.

JOIN THE CONVERSATION!

What are you doing to solve environmental challenges in the Midwest? What else can we do together to maximize benefits to the communities in transition? What are your BIG ideas?

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http://bit.ly/Deltatools

ADDITIONAL RESOURCES

Additional resources and examples from each module are listed below.

Module 1: Building a Redevelopment and Transition Team

- Renas, Margaret, and Mel Pins. "Before You Begin Your Brownfield Redevelopment." presented at the Iowa Statewide Workshop, 2017.

Module 2: Assessing Economic and Environmental Impacts

- See links within Module 2, Tables 2-4

Module 3: Determining Site Challenges and Opportunities - Environmental Site Assessment and Remediation

- EPA Regional Offices.
- "Plant Decommissioning, Remediation and Redevelopment." US EPA.
- Rodríguez Martín, José Antonio, and Nikos Nanos. 2016. "Soil as an Archive of Coal-Fired Power Plant Mercury Deposition." Journal of Hazardous Materials 308 (May): 131–38.
- Terrie K. Boguski, P. E., Sabine Martin Ph.D., and L. P. G. Beth A. Grigsby. 2016. "Brownfields Resources: Phase I Environmental Site Assessments." 7. CHSR.
- "Basic Elements of Phase I and Phase II Environmental Site Assessments." 2014. The Small Business Environmental Assistance Program.

Module 4: Planning an Engagement Strategy

- Nochur, Aditya Kumar. 2013. "Planning for Coal Power Plant Transition : Lessons Learned from Communities in Massachusetts." Massachusetts Institute of Technology.
- "Roadmap for Auto Community Revitalization." 2013. US EPA.
- Susskind, Lawrence, Sarah McKearnan, and And Jennifer Thomas-Larmer, eds. 1999. The Consensus Building Handbook. A Comprehensive Guide to Reaching Agreement.
- International Association for Public Participation.

Module 5: Developing reuse ideas from a shared community vision

- Fisk and Crawford Reuse Task Force: Process, principles and recommendations. Delta Institute.
- In Transition: Stories from Coal Plant Communities. Delta Institute.