



# Quick Guide

## Assessing, Planning, and Monitoring to Increase Local Economic Opportunities From Restoration

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**T**he increased interest in restoration on both public and private lands has led to opportunities for advancing a more robust restoration economy in some rural communities. However, achieving local economic benefits for businesses and workers may require deliberate strategies that are carefully matched to local strengths and limitations.

This quick guide aims to help collaborative groups, community stakeholders, and agency partners develop and implement strategies to improve the local

economic outcomes from forest and watershed restoration. First, the guide outlines the process for conducting a restoration industry assessment to gather information on the state of the restoration industry and workforce in an area. Second, it describes how to use the assessment to create an action plan for improving local economic benefit from restoration opportunities. Finally, the guide offers resources for monitoring.

## 1. Conducting a restoration industry assessment

To achieve local economic outcomes while meeting ecological restoration needs, communities and their agency partners need to understand the types of work that are needed and the capacity of local businesses and workers to perform it. This can better link land management needs to the capacity of local contractors and workers. With this information, you can develop and implement strategies to provide contractor assistance, develop appropriate worker training, and structure contracts to foster quality jobs.

### What is a restoration industry assessment?

A restoration industry assessment collects information about the state of the restoration industry in a particular locale. It can include information about the types and amount of work undertaken in an area, the businesses contracted to perform that work, and characteristics of the workforce implementing the work. This information can act as a foundation for developing and implementing strategies that links forest and watershed restoration work with the people and businesses skilled and equipped to undertake this work in your community.

### The purpose of a restoration industry assessment

- Learn about types of restoration work being undertaken in your community
- Learn about the skills, equipment, and interests of local contracting firms and workers
- Learn if there are any gaps between restoration needs and locally available contractor services
- Decide if economic development through restoration is a strategy that your community wants to pursue
- Develop relationships with contractors, workers, and agency staff, including contracting officers
- Identify opportunities for more effective use of local contractor and worker capacity
- Identify training and assistance needs, such as skill development, bonding, and access to capital

Understanding the local restoration industry requires understanding funders, land management agencies and organizations, businesses, workers, and the markets that connect them. Funders provide

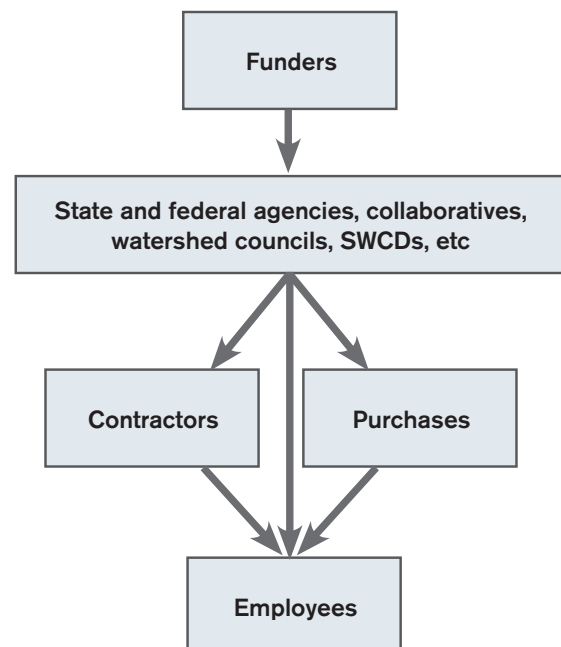
money to land management agencies, collaboratives, watershed councils, and other community organizations through the grant market. These agencies and organizations hire contractors and make purchases in the contracting market, and all of the entities and purchases require employees provided through labor markets (Figure 1). Typically, this involves looking back several years to understand the type of work contracted and gathering information from contractors and workers to build a picture of business and workforce capacity, barriers, and needs.

### Conducting the assessment

We recommend a process with five components:

- (1) Create a steering committee to guide the assessment;
- (2) Develop the purpose and scope of the assessment;
- (3) Assess trends and supply of restoration work;
- (4) Assess local business and worker capacity;
- (5) Report the results to the steering committee and other key partners.

**Figure 1 The restoration economy**





Each of these components is described in greater detail in the following sections. Assessments require basic computer skills, including the use of a spreadsheet program such as Excel, internet access, and willingness and ability to interview forest contractors and workers in their primary language.

### Create a steering committee

The first step is to bring together a group of partners to develop assessment goals, a scope of work, and commitment to the assessment. Partners might include federal and state natural resource agencies, community organizations, forest collaborative stakeholders, contractors and workers, and economic development entities. Generally, representatives of all interested stakeholder groups should participate in developing the assessment plan, including those who can use the results of the assessment, and those who will be affected by subsequent development activities. Although a steering committee can guide the process and provide feedback, at least one person will need to dedicate time to gathering information, analyzing data, and reporting results.

### Develop the purpose and scope

The steering committee should begin by defining the purpose of the assessment. What are the goals of the committee in undertaking the assessment? How will the committee use the information? The answers to these questions will guide the assessment. After developing goals and objectives for the assessment, the steering committee will need to determine the scope of the project:

- What is “local”? Which lands and communities should be included?
- What is the organizational scope? Which landowners, organizations, or agencies should be included?
- In what communities are the businesses and workers located that you want to interview?
- What kinds of work do you want to include? Reforestation, thinning, road decommissioning and maintenance, instream work, and noxious weed treatments are just a few possibilities. Do you also want to include planning or other technical activities?
- What is the timeframe for the analysis? How many years back do you want to cover?

To answer these questions, the committee might consider the assessment goals and how it plans to use the results. In addition, the committee may need to adapt the scope to match the realities of data gathering and analysis. Data may be available at different scales than the group would prefer and some organizations or agencies may not record desired information in accessible ways.

### DEMAND: Assess the restoration work being performed

Once you have determined the purpose and scope of your assessment, you can turn to the questions of how much and what types of work are being done in your locale. Because it is very difficult to predict future work, we recommend that you look at work actually contracted in the recent past as a guide to what is likely to happen in the future; along with interviewing agency and other land managers to obtain their sense of upcoming trends, issues, and needs. We call this the “demand assessment.”

Assessing the work demand involves four steps: (a) developing assessment questions, (b) gathering data, (c) inputting data, and (d) analyzing data.

#### A. Develop assessment questions

Based on your scope and goals, develop assessment questions that fit your particular circumstances. For example, if you are focusing on federal lands, you might want to ask:

- How much and what type of work have agencies and local organizations contracted out over the past five years (or chosen timeframe)?
- What types of work have increased and decreased over time?
- What are the sizes of the contracts and how have they changed over time?
- How much of the work did local contractors perform?
- What kinds of work did local contractors capture?
- Are there patterns in the size of contracts that local contractors typically capture?
- Are there any strategic plans or similar plans from local organizations that outline their future work needs and goals?

**B. Gather data**

Answering your questions requires that you determine exactly what kind of information you need and where you will get it. For example, to answer the questions above, you need, for each contract: the type of work involved, the issuing agency, the year issued, the dollar value, contractor name and address, and the contracting instrument. Each agency and organization will have different systems for tracking their contracts. You will have to work with each agency's procurement staff to determine the type of information available and its format. A word of caution: program staff are often unaware of the tracking systems that contracting staff use. Be sure to work with both program and procurement staff.

Federal contracting information is available online at USA Spending (<https://www.usaspending.gov/>). With few exceptions, all contracts valued over \$2,500 should be available online. By clicking on the "Download Center" and then the "Data Download" tabs, users can search for agency-specific data using a simple query system. A table of product service codes (types of work) queried in previous workforce assessments is included on page 12. When the data have been collected, it will be necessary to sort through contracts, eliminate irrelevant information, and isolate useful information. The USA Spending data do not include timber sales or stewardship contracts created with an integrated resource contract timber. This information can be obtained from your local Forest Service or Bureau of Land Management office. They do include information about integrated resource contract service-type stewardship contracts. They will not be specifically designated but you may be able to isolate them by looking at the project description column. In addition to service contracting information, you can find also find information about federal grants and agreements under the "Select the Spending Type" tab on the USA Spending web page. There you can find information about federal cost share programs from agencies such as the Natural Resource Conservation Service as well as Forest Service agreements. Agreements are housed with the grants.

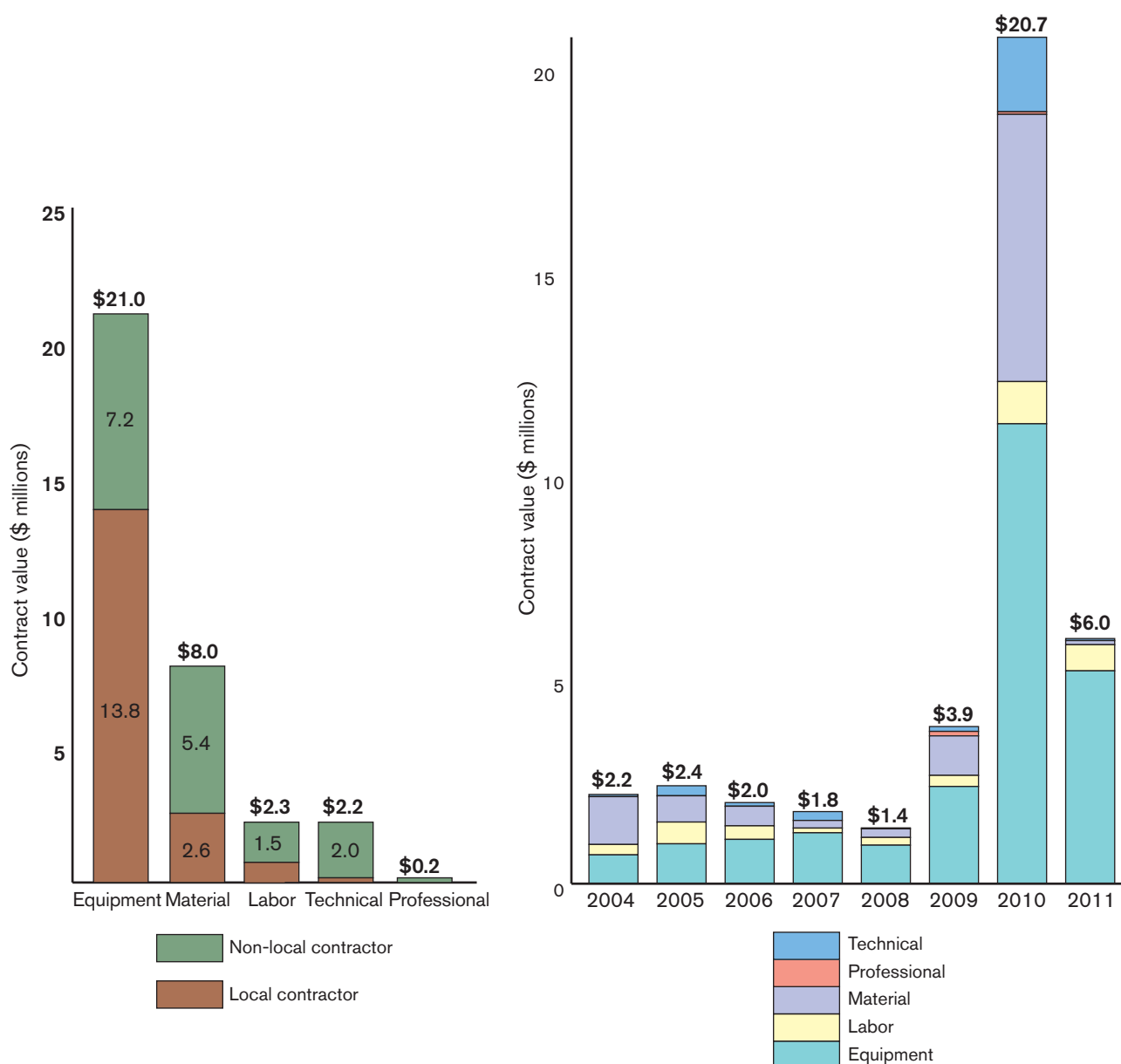
Other organizations, such as watershed councils, will organize their data differently and may not be able to provide equally detailed information about their contracted work. Even if an entity cannot provide exact information, it is worth interviewing staff and volunteers about their program to identify how much and what kinds of work they have been contracting, and their projections of the future. You can provide a qualitative assessment of the work opportunities if more systematic data are not available.

**C. Input data**

Data should be entered into a spreadsheet or database. Whenever possible, obtain electronic versions of the data so it does not have to be manually entered. Even with electronic data, this step can be time-consuming because the data will have to be compiled and formatted specifically to meet your needs. Ensure that data is safely stored and backed up with a reliable organization, and that it will be accessible to committee members.

**D. Analyze data**

Once you have your data in a spreadsheet or database, there are numerous ways to analyze them. Begin by answering your assessment questions and looking for patterns in the data that had not occurred to you when you were designing your assessment. You might do this by looking at the data from several different angles, such as grouping the data by work type and then by year to see if different patterns emerge. For example, the figures on page 5 show different results for contract values on the Malheur National Forest from 2004-2011. The first graph shows that equipment contracts made up the large majority of contract spending across the time period. However, looking one year at a time shows that this is not true in every year, and shows that equipment contract spending, on average, increased steadily in proportion to other types of contract spending during the time period. You can find other examples of workforce assessments at <http://ewp.uoregon.edu/assess> that can help identify additional ways to analyze your data.

**Figure 2 Restoration service contracts on the Malheur National Forest, 2004 - 2011**

### SUPPLY: Assess business capacity, interest, and needs

Understanding your local business and workforce capacity involves five major steps: (a) developing supply assessment questions, (b) developing interview questions, (c) identifying businesses and workers, (d) conducting interviews, and (e) compiling and analyzing data.

#### A. Develop supply assessment questions

A supply assessment identifies contracting firms and workers and their interests, skills, and needs. The best way to obtain this information is to talk with contracting firms and workers directly. Prior to talking to contractors and workers, the steering committee needs to develop assessment questions, just as it did for the work assessment. For example, you might want to understand:

- Local contractors' size, experience, and equipment
- Overall number and diversity of local contractors
- Contractor interest in restoration contracting, including the types of entities they want to contract for
- Desire to expand or change their business
- Barriers that may hinder increased participation in restoration contracting
- Contractor suggestions for increasing local participation in restoration contracting
- The kinds of bonding capacity or licenses contractors have
- The availability of workers in your area and their skills
- Working conditions and how they might be improved
- Worker training needs

### **B. Develop interview questions**

Careful planning of interview questions allows you to gather information that you need to answer your assessment questions. Interview questions should lead to simple, concrete answers that can be easily tabulated. For example, you might want to know how many years each company has been in business and what types of work they do. At the same time, several questions will need to be more open-ended and exploratory. For example, you might want to hear suggestions about how a federal land management agency should change its contracting practices or what kind of training workers need. As you develop your questions, consider the likely answers that you may receive and what you will do with that information. It is easy to create questions that do not elicit the type of information you expected. The EWP web page (<http://ewp.uoregon.edu/assess>) contains several sets of sample interview questions that have been used for workforce assessments. After you have developed draft interview questions, have several people review them, including any contractors and workers on your steering committee. Conduct practice interviews to determine how much time the interview will take and if your questions lead to the type of answers that you expected. Revise your questions based on what you learned. You may find that you need to eliminate some questions to focus on the most important information and take up less of your interviewees' time.

### **C. Identify businesses and workers**

To gather information from contracting businesses and workers, you will have to decide what kind of businesses and workers to target for interviews and then locate actual business owners and forest workers. Return to your decisions about the scope of the assessment to decide which types of businesses and workers you will target. You might consider labor-intensive businesses and workers who perform reforestation and thinning, technical firms such as surveying firms, heavy equipment operators such as those who undertake local road work or own backhoes or other equipment, logging firms, and small mill owners. There may be local contractors who do not perform work for agencies, but work frequently with area forest products businesses. You may also consider interviewing a local workforce agency or workers' group to learn more about the workers and workforce trends in your locale.

There are several potential sources for identifying businesses to be interviewed, including:

- The contracting data obtained for the restoration work assessment
- Contracting businesses that people on your steering committee know
- State contractors' licensing boards
- Contractor associations
- Internet searches

In addition, in every interview, ask the interviewee if they know of other contractors who undertake similar work. While it may not be necessary to interview forest workers in addition to contracting businesses, in some cases these interviews might yield important information. Finding workers can be more difficult than finding contracting businesses, as there are rarely lists of forest workers. If you do decide to interview workers in addition to contracting businesses, the contractors that you interview may be an important source for finding forest workers to interview. In addition, ask agency contracting officers and community residents with large social networks to identify people who work in the woods. Whenever you interview a worker, ask them who else you should talk to. A word of caution: In many areas, significant numbers of forest workers may not be comfortable being interviewed in English. If this is the case in your community, find someone who



can help you conduct interviews in the worker's primary language. If you ignore non-native English speakers, you may not have a complete picture of work in the woods or the needs of forest workers.

#### **D. Conduct interviews**

Obtaining information from business owners and workers is only one purpose of conducting interviews. Interviews are also an important step in building relationships. Approach business owners and workers with respect. Before beginning the interview, explain who you are, the purpose of your project, and ask permission to interview them. Explain how you will protect their privacy and how you will use the information that they give you. Finally, let them know when your results will be available and follow through by sending them your report and inviting them to meetings where the results will be presented or discussed.

As you are setting up interviews, think about times of the day and year that contractors and workers are most likely to be available. You may need to be available to talk with people early in the morning and at night, when people are not in the woods. It may also be easier to talk with people during slow months, for example, during the winter. Because they are doing you a favor by talking to you, be prepared to travel to meet with them in their office, home, or other convenient place. Some workers may be uncomfortable with being interviewed at all. If you have having difficulty setting up interviews, you might consider using a trusted community resident to set up or conduct the interviews.

Take detailed notes during your interviews. These are your data. You may wish to print out a sheet with the interview questions and space to write in what you are hearing. You can share your notes with the interviewee to have them verify accuracy and add additional information. As soon as possible, scan or otherwise digitize notes so they are not lost.

#### **E. Compile and analyze data**

Unlike the demand assessment, the supply assessment will likely be primarily narrative and analysis will be of your notes and records. The particular analysis you perform will depend on the questions



that you ask of contractors and workers. You might begin your analysis by determining the number, experience, equipment, and size of local businesses from across your interview notes, and entering this into a spreadsheet. Then review and compile the needs and barriers that business owners face. Look for patterns such as repeated themes, and observe if these themes are consistent with particular business characteristics such as size or types of work. Repeat the analysis for workers.

#### **Report results and recommendations**

As you collect and analyze your data, you will quickly see patterns that will help you decide how your organization should move forward. You may be able to act on these ideas, but it is vital that your findings be written up or otherwise shared with others: your assessment steering committee, the business owners and workers you interviewed, and others who can act upon the information. Broad support about how to proceed with your plans depends on people having access to the same, good quality information.

You should develop a report that includes a discussion of your analysis and its meaning. You may wish to include recommendations as part of your conclusions. However, be sure that your recommendations can be drawn from the data; resist the urge to editorialize. Use the report as the basis for discussion among steering committee members about next steps in your economic development efforts. You may also wish to develop a one-page summary or a powerpoint presentation to more easily share key information.

## 2. Developing a restoration jobs action plan

Once you have completed the restoration industry assessment, you need to develop an action plan for improving local economic benefit from forest and watershed restoration.

To develop an action plan, the committee should consider what it learned in the assessment and develop strategies, based on the strengths and weaknesses identified, to improve local economic opportunities. Once strategies are established, the committee should identify organizations and individuals who will implement particular strategies and devise a rough timeline for implementation.

The action plan is likely to involve a number of strategies involving different groups and organizations. For example, the action plan might include a federal lands strategy, a nonprofit contracting strategy, and a contractor capacity strategy. Some strategies may be implemented quickly, whereas others might take months or even years. Implementation is most likely to succeed when it becomes a regular part of the work plan of local collaborative groups, nonprofits, and land managers.

### Developing strategies

As the committee develops its action plan, it might consider the following questions:

- What are the ecological priorities that are likely to be funded in the area over the coming years?
- What is the capacity (size, skills, licenses, bonding, equipment, experience, etc.) of the local contractors?
- Are there gaps between the likely work opportunities and the capacity of the contractor? Why?
  - How will gaps be filled?
  - Can gaps be filled with contractor assistance?
  - Can gaps be filled by increasing funding or changing the way that agencies structure their contracts?
  - Are there gaps that are so large that it will be necessary to consider creating a new business or an in-house crew of the nonprofit organizations?
  - How much of the federal, state, and nonprofit work is awarded to local contractors? Are there ways that this can be increased?





- Are the contracts of a size, scope, scale, and timing to make them accessible to the local contracting capacity? What can be done to change this if not?
- Is benefit to the local community taken into consideration when federal contracts are awarded? Do nonprofit organizations have policies in place to give preference to local contractors?
- According to the contractors, what would make their businesses more successful?
  - What can be done to assist them?
  - Is outside expertise in training, skill building, business assistance, bonding, and licensing, etc. needed to help the contractors?
- To what extent is there a consistent program of work that would allow contractors to make investments in new equipment, workers, or skills?
  - What can be done to increase this consistency across seasons and years?
- For types of work that no local contractors can perform or plan to retool to perform, can non-local contractors be encouraged to hire and purchase supplies in your area?

- What kinds of grants and other programs are available (e.g. for your watershed councils, soil and watershed conservation districts) that would allow them to pursue work well-matched to local capacity?

### **Organizations and timelines**

When the group has developed substantive strategies to increase local benefits from restoration contracting, it should ask:

- Who will take the lead in implementing which strategies? Who will collaborate with the lead organization?
- Are there existing partnerships or organizations that can incorporate these strategies into their work plans?
- Which strategies are one-time activities and which will require development over time?
- How will this implementation be funded?
- What is the timeline for implementation of each strategy?
- How often will you monitor, review progress, and make changes (see below)?





### 3. Monitoring and planning for adaptive management

Because creating and sustaining a successful program is likely to take place over time and require considerable experimentation, it is important to monitor the effectiveness of efforts made and to make changes in strategy when things do not go according to plan. The group might consider:

- How to monitor progress
- How to know if its efforts have been successful
- How to revise the action plan to respond to what has been learned.

Generally, monitoring your economic outcomes requires setting goals, setting parameters, selecting monitoring measures, collecting data, and reporting and using monitoring results.

- Setting goals: you likely set broad goals during your action planning process. You may wish to add more specific objectives or outcomes under these goals. To be realistic, keep in mind the kinds of outcomes that you do and do not have influence over.

- Setting parameters: You will need to decide the scope and scale of your monitoring (e.g. projects, overall trends), what you define as local, and what is possible to assess.
- Selecting monitoring measures: You will need to identify specific measures that link to your goals/objectives and can be tracked over time.
- Collecting data: capacity to systematically collect and safely store data will be necessary. Data collection will likely be a collaborative effort with contributions from multiple partners, and ground-truthing from contractors and knowledgeable individuals.
- Reporting and using monitoring results: Identify your audiences, ways to reach them (e.g. meetings, their newsletters), and a deliberate learning process to discuss results and change course as needed.

For more detailed information on these steps, see: <http://ewp.uoregon.edu/monitor>.

### Resources

For examples of workforce assessments, workforce assessment questionnaires, monitoring guides, and many other resources for the restoration economy, visit: <http://ewp.uoregon.edu/economy>

**Checklist:****Organizing and planning**

- Create a steering committee
- Develop purpose, goals, scope, outcomes, and timeline

**Designing and conducting a restoration industry assessment*****Trends and demand for restoration work***

- Develop assessment questions
- Identify geographic boundaries, organizations/landownership, and time frame of analysis
- Identify contracting data sources
- Collect and analyze contracting data
- Input data
- Analyze data
- Conduct interviews with managers to gather information about future projects
- Compile and analyze interview data

***Supply of local contracting capacity***

- Develop assessment questions
- Develop interview questions and guide
- Identify businesses and workers
- Conduct interviews
- Compile and analyze interview data

***Report results and recommendations***

- Write draft findings
- Review assessment for strengths, weaknesses, and opportunities
- Develop recommendations for possible actions
- Share with partners, refine findings, fill gaps
- Create and make available final assessment

**Creating an action plan**

- Develop strategies, including specific actions
- Identify responsible parties and preliminary timelines
- Write a work plan

**Implementation, monitoring, and adapting**

- Implement strategies
- Set goals
- Set parameters
- Select monitoring measures
- Collect data
- Report, discuss, and use results through a learning process

**Appendix A: Product service codes used in a restoration industry assessment**

<b>Product Service Code</b>	<b>Description</b>	<b>Restoration type</b>
F001	Natural resources/conservation- Aerial fertilization/spraying	Equipment
F002	Natural resources/conservation- Aerial seeding	Equipment
F004	Natural resources/conservation- Forest/range fire rehabilitation (non-construction)	Equipment
F007	Natural resources/conservation- Range seeding (ground equipment)	Equipment
F011	Natural resources/conservation- Surface mining reclamation (non-construction)	Equipment
F014	Natural resources/conservation- Tree thinning	Equipment
F018	Natural resources/conservation- Other forest/range improvements (non-construction)	Equipment
F021	Natural resources/conservation- Site preparation	Equipment
Y1KA	Construction of dams	Equipment
Y1KB	Construction of canals	Equipment
Y1KE	Construction of surface mine reclamation facilities	Equipment
Y1KZ	Construction of other conservation and development facilities	Equipment
Z2KA	Repair or alternation of dams	Equipment
Z2KB	Repair or alternation of canals	Equipment
Z2KE	Repair or alternation of surface mine reclamation facilities	Equipment
Z2KZ	Repair or alternation of other conservation and development facilities	Equipment
F005	Natural resources/conservation- Forest tree planting	Labor
F006	Natural resources/conservation- Land treatment practices	Labor
F008	Natural resources/conservation- Recreation site maintenance (non-construction)	Labor
F012	Natural resources/conservation- Survey line clearing	Labor
Y1PA	Construction of recreation facilities (non-building)	Labor
Z2PA	Repair or alternation of recreation facilities (non-building)	Labor
Y1LB	Construction of highways, roads, streets, bridges, and railways	Material
Y1LZ	Construction of parking facilities	Material
Y1PB	Construction of exhibit design (non-building)	Material
Y1PC	Construction of unimproved real property	Material
Y1QA	Construction/restoration of real property	Material
Z2LB	Repair or alteration of highways/roads/streets/bridges/railways	Material
Z2LZ	Repair or alteration of parking facilities	Material
Z2PB	Repair or alteration of exhibit design (non-building)	Material
Z2PC	Repair or alteration of unimproved real property (land)	Material
Z2QA	Repair or alteration of restoration of real property (public or private)	Material
B502	Special studies/analysis-Air quality	Professional
B517	Special studies/analysis- Geological	Professional
B518	Special studies/analysis- Geophysical	Professional
B519	Special studies/analysis- Geotechnical	Professional
B520	Special studies/analysis- Grazing/range	Professional



<b>Product Service Code</b>	<b>Description</b>	<b>Restoration type</b>
B525	Special studies/analysis- Natural resource	Professional
B526	Special studies/analysis- Oceanological	Professional
B527	Special studies/analysis- Recreation	Professional
B530	Special studies/analysis- Seismological	Professional
C1LB	Architect and engineering- Construction: Highways, roads, streets, bridges, and railways	Professional
C211	Architect and engineering- General: Landscaping, interior layout, and designing	Professional
B503	Special studies/analysis- Archeological/paleontological	Technical
B509	Special studies/analysis- Endangered species: Plant/animal	Technical
B510	Special studies/analysis- Environmental assessments	Technical
B516	Special studies/analysis- Animal/fisheries	Technical
B532	Special studies/analysis- Soil	Technical
B533	Special studies/analysis- Water quality	Technical
B534	Special studies/analysis- Wildlife	Technical
F009	Natural resources/conservation- Seed collection/ production	Technical
F010	Natural resources/conservation- Seedling production/transplanting	Technical
F013	Natural resources/conservation- Tree breeding	Technical
F019	Natural resources/conservation- Other wildlife management	Technical
F020	Natural resources/conservation- Fisheries resources management	Technical
F022	Natural resources/conservation- Fish Hatchery	Technical
F099	Natural resources/conservation- Other	Technical







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