The Plant Appraisal Process

By The Council of Tree & Landscape Appraisers

Learning Objectives

- Understand best practice in developing answers to a client's question about plant value.
- Learn the three main approaches to analyzing appraisal data.
- Identify assumptions and limiting conditions specific to appraisal reports.
- Recognize the basic framework for the appraisal process regardless of the appraisal assignment in question.

CEU(s) for this article apply to: A, T, Bp, Bm.

Introduction

Appraisal is a systematic process that uses both quantitative analysis and qualitative judgment to develop and communicate an assignment result of either a cost or a value. This chapter provides plant appraisers with an overview of the plant appraisal process, a systematic series of steps which assist the appraiser in developing answers to a client's question about value (Appraisal Institute 2013a, 2013b):

1. Define the appraisal problem and the type of cost or value to be estimated.
2. Prepare a scope of work (i.e., the assignment).
3. Collect relevant data.
4. Analyze the data and apply the appropriate approaches, methods, and techniques.
5. Reconcile the analyses to produce the assignment result.
6. Prepare a report.

These steps are listed in sequence, but an appraisal assignment may not proceed in such a linear manner. Defining the appraisal problem is always the first step, yet many details may not be identified until later. In typical appraisal assignments, steps two and three may overlap. Even the definition of the appraisal problem may require a site visit and/or research. For example, the number, size, species, condition, and exact location of appraised plants may not be discerned without field inspection. Under normal circumstances, steps one, two, and three should be undertaken before steps four, five, and six.

The appraisal problem, assignment, and context can be clarified during the initial contact with the client (Table 3.1).

Following initial contact with the client but before entering a formal agreement, the plant appraiser must decide whether to accept the assignment. Are the appraiser's qualifications and experience appropriate for this assignment? Are the scope and terms of the assignment acceptable? Is the appraiser able to bring confidentiality, competence, objectivity, impartiality, due care, independence, and integrity to the assignment? Is the appraiser able to meet the deadlines and timeline? If not, declining the assignment may be the best course of action.

A plant appraiser's responsibility is to provide an independent, objective, and impartial result without discrimination or accommodation of personal interests. The client provides information and context to the assignment but should not direct the appraiser's work. If an appraiser is perceived as having a personal interest, bias, or a conflict of interest, it may be necessary to step away from the assignment or, at a minimum, to disclose the conflict at the onset of the assignment or as soon as discovered. The CTLA strongly discourages advocacy and other practices that are not rooted in economic reality and empirical data.

Step One: Define the Appraisal Problem

The first step in the process is to identify the appraisal problem. This sets the parameters of the assignment and eliminates ambiguity about the nature of the assignment. In this step, the appraiser identifies

a) the client and intended users of the appraisal,
b) the intended use of the appraisal,

Table 3.1 Questions that will be answered during the appraisal process. Each answer provides context for the problem and assignment. As more questions are addressed, the context becomes more specific.

Who
Who will be preparing the appraisal?
Who will be collecting the data?
Who is the owner of the tree/landscape being appraised?
Who is the client?
Who are the intended users of the appraisal?
Who are any other parties involved in this situation?
What
What are the characteristics of the item being appraised?
What is the intended use of the appraisal?
What is the definition of the cost or value to be estimated?
What approaches, methods, and techniques are relevant to the problem?
What data are needed to develop the appraisal?
What are limitations to developing the appraisal?
What are the relevant dates associated with the appraisal? (effective valuation date, inspection date, date analysis was completed, date report was completed)
Where
Where is the item located? (community, neighborhood, site description)
Where is the item present, or has it been moved elsewhere?
Why
Why is the appraisal needed?
Why were specific approaches, methods, or techniques employed?

c) the type and definition of the assignment result,
d) the effective date of the appraisal,
e) the relevant characteristics of the tree or landscape being appraised, and
f) any assumptions and/or limiting conditions.

Identify the Client and Intended Users

The appraiser's client is the person or entity for whom the appraiser is conducting the valuation. The client may be a landowner, attorney, insurance company, potential buyer or seller, lender, government agency, non-governmental agency, or other entity. Identifying the client allows users of the appraisal to know who has hired the appraiser and to whom the appraiser owes a duty of care.

An intended user is a person or entity who will use the information in the appraisal (The Appraisal Foundation 2016a; Appraisal Institute 2015). The client is always an intended user of the appraisal. The client may specify other intended users, such as an attorney, municipality, lender, neighbor, or other party.

Many situations involve people other than the client. They should also be identified as early as possible. For example, a tree is located on a property line and is thus jointly owned; an insurance matter will involve one or more insurance companies, policyholders, and claimants. A lawsuit will involve attorneys, a defendant, a plaintiff, and others. Access to the property and tree may require interaction with a renter or real estate agent. Identifying all relevant parties will help to avoid conflicts of interest and delays in performing the scope of services.

Identify the Intended Use of the Appraisal

The intended use of an appraisal answers the question: why does the client need the appraisal? The appraisal may have more than one intended use. Probing questions may be needed during the initial inquiry to help both the appraiser and client identify the intended use(s) and establish the scope of work.

For example, a client may tell the appraiser, "A neighbor came onto my property while my family was on

vacation and cut down one of my trees." The situation creates the need for an appraisal, but it does not clearly identify the intended use of the appraisal. Examples of intended use in this situation include the following:

- The client wants to sue the neighbor for the loss incurred.
- The city arborist asked that the client obtain an appraisal to establish the fine the neighbor has to pay for violating the municipal tree ordinance.
- The client wants to know if there has been any change in the value of the property.
- The client wants to deduct the loss from his or her income taxes.
- The client's home-owners insurance company (or the neighbor's insurance company) needs an appraisal to establish the value of the client's claim.
- The client wants to know how much it would cost to replace the lost tree with an exact duplicate.
- The client wants the neighbor to replace the tree with landscaping that will provide the same screening.

Understanding the intended use of the appraisal is critical to identifying and defining the appraisal approach. The credibility of an appraisal is always judged or measured in terms of the intended use of the appraisal:

- Where restoration costs are of primary concern, cost-based estimates may be most relevant.
- Where superadequacy is a factor, a replacement cost estimate may warrant more weight than a reproduction cost estimate, because it focuses on the concept of utility or benefits provided.
- Where market value estimates are sought, the sales comparison approach may be strongest if transaction evidence is prevalent and if it is important to tie the valuation to overall property value.
- Where the client requests both market value and the cost to restore the site to its predamage condition, it would be reasonable to present both estimates.

Identify the Appropriate and Relevant Type and Definition of the Assignment Result

Once the intended use of the appraisal is determined, the appropriate and relevant assignment result can be identified. No matter which appraisal approach is employed, the assignment result will always be a cost or a value.

Cost estimates may include one or more of the following:

- Reproduction cost, i.e., the cost to install a duplicate or replica of a tree or landscape item. It may or may not include depreciation for benefits, function, or utility.
- Replacement cost, i.e., the cost to replace the landscape item with an item or items having equivalent utility. It may or may not include depreciation for benefits, function, or utility.
- Repair cost, i.e., the cost to repair a damaged landscape item.
- Other costs, i.e., costs associated with the above such as demolition, clean-up and debris disposal, permits, and monitoring.

Value estimates may include one or more of the following:

- Contributory market value, i.e., what the landscape item adds to overall property value.
- Market value of standing or felled timber, crops, nursery stock, Christmas trees, or other commodities.
- Insurable value, which is used to define market value insurance coverage for specific trees or landscape elements.
- Present value of future benefits, such as an i-Tree Eco evaluation.
- Public interest value, i.e., how much the landscape item is worth to the general public.

Plant appraisers may also encounter statutory value, i.e., a value specified in a statute or regulation. Statutory value may be calculated according to the number of trees, trunk cross-sectional area, amount of canopy, square foot of cleared area, or some other metric. The method of calculation may be specified. The statutory value calculation may become a fine or penalty for a violation, or a type of mitigation in a project approval. Statutory value is unrelated to an estimate of cost or value.

Definitions of cost and value can be confusing. The definition should be cited from an appropriate source, such as this *Guide*, Uniform Standards of Appraisal Practice (USPAP) (The Appraisal Foundation 2016a), The Dictionary of Real Estate Appraisal (Appraisal Institute 2015), another text, applicable law or regulation, or an engagement letter.

The plant appraiser selects the approach, method, and technique to develop an estimate of cost or value. A series of questions may assist the appraiser in these decisions.

Some plant appraisal problems can be addressed in more than one way. An appraiser may determine that more than one approach, method, or technique is necessary to produce a credible cost or value estimate. The assignment may call for simply reporting various results or for reconciling them into a final conclusion.

Identify the Effective Date of Valuation

An appraiser should identify the effective date of the valuation in one of three general time frames.

- Retrospective appraisals develop an opinion of value that predates the inspection. They are typically retrospective to the date of tree damage or removal. Litigation develops over time, so the appraiser may not become involved until several

years after the date of loss, which is likely the effective valuation date.

- Current appraisals occur when the effective date of the appraisal is the same as the date of property inspection or report completion, or is current with today's market conditions. They are commonly associated with tree inventories, tree protection or construction bonds, transactions, and damage claims.
- Prospective appraisals offer an opinion of value for a future date. They may be appropriate in the case of planned development or as part of cash flow analysis in which projections of future cost or value are made. They may also be used to estimate the value of a nursery, orchard, or timber resource at some future date.

Identify What is Being Appraised

The appraiser needs to identify what is being appraised:

- Is it one or more trees, shrubs, an orchard, turf, timber (standing or cut), hardscape, or a combination of these?
- Is the item real property or personal property? A tree being held in a temporary location, with the intent to plant it in the future, is personal property. A tree growing in a landscape is real property.
- Who owns the property? Is the client the tree owner or the tree owner's representative? What is the ownership interest in the asset(s) being appraised? Are there any limitations to the ownership of the tree or landscape due to easements, leases, timber rights, or a tree preservation ordinance?
- Where is the tree or landscape located? Identify the community, neighborhood, and address. State where on the site the plant or landscape item is placed. Is the tree on the property line or adjacent to a street, streetlight, sidewalk, etc.?
- How is the property currently being used? For example, is it a residence, a vacant lot, a commercial site, an urban street setting, a park, or a woodland? Is a different use planned or proposed? Is the current use the highest and best use?

The characteristics identified in defining the appraisal problem should be sufficient to describe the problem and assignment. Many details may not be identified until later. For example, the number, size, species, condition, and exact location of appraised plants may not be ascertained until actual field inspection and data collection have been completed.

Identify Assumptions and Limiting Conditions

All appraisals include assumptions and limiting conditions that the appraiser should communicate in the report so that users will understand how to apply the results. Appraisers often undertake assignments with the understanding that some of the information being presented, and upon which the appraiser's conclusions are based, is presumed to be true but has not been verified. Such unverified information is known as an assumption.

Limiting conditions are constraints to the investigation, data analysis, or use of the report. Limiting conditions may be imposed by the situation at the site, clients, a controlling authority, or the appraiser.

Assumptions and limiting conditions are statements that are specific to each assignment and report. Examples include the following:

- Access to the trees was denied, so the appraiser had to rely on distant views of the subject and aerial imagery.
- Property lines were not clearly marked, so the appraiser had to rely on the client's representations regarding to where the tree is placed on the site.
- This report does not confer upon the appraiser an obligation to testify or otherwise participate in subsequent litigation proceedings unless or until arrangements have been made to do so.
- The appraiser obtained cost estimates from sources (e.g., nurseries, landscapers) considered to be reliable and presumes that they are accurate. The appraiser does not assume responsibility for the accuracy of information furnished by other parties.
- This report was prepared using forms developed by the Council of Tree and Landscape Appraisers. However, the content, analyses, and opinions set forth in this report are the product of the appraiser.

Extraordinary assumptions are assumptions "directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions" (Appraisal Institute 2015). Labeling them as such signals to the reader that the assumption may not be true, whereas in the case of the more general assumptions noted above there is no particular reason to caution the reader. Extraordinary assumptions should be clearly disclosed in the appraisal report.

Examples of extraordinary assumptions include statements such as the following:

- There was no opportunity for the appraiser to observe the health of the trees before they were damaged. The appraiser assumes that they were reasonably healthy at the time of loss.
- The trees that were cut were removed from the site before the appraiser's inspection. The appraiser assumes that the correlation between stump diameter and dbh observed among similar trees remaining

on the site is indicative of the correlation for the trees that were removed.

- The appraiser is not aware of any local history of purchasing and installing large tree specimens like the subject tree. The client nevertheless has directed the appraiser to estimate the cost to install a similar specimen, under the assumption that it is economically feasible.

Hypothetical conditions are assumptions made contrary to known fact, but which are regarded as true for the purpose of discussion, analysis, or formulation of opinions (The Appraisal Institute 2013a). Hypothetical conditions should only be used for legal purposes, for purposes of reasonable analysis, or for purposes of comparison, and if they lead to a credible analysis. Hypothetical conditions should be clearly and conspicuously disclosed in the appraisal report.

Statements of hypothetical conditions include the following:

- The subject plants were in poor to average condition at the time of the damage. However, the client has instructed the appraiser to estimate their reproduction cost absent any deductions for depreciation. The resulting estimate therefore exceeds the estimate that would be produced if depreciation were considered.
- The subject tree is an invasive species and, in the appraiser's opinion, was undesirable as a landscape component. There is no evidence that property owners planted such specimens. However, the client has asked the appraiser to appraise the reproduction cost of the subject tree without deducting for its invasive status.

Step Two: Define the Scope of Work

Once the appraiser has identified the appraisal problem, a scope of work can be determined. It should contain a statement of the appraisal problem, the type of report to be provided, a time line, and a fee. The client and appraiser should agree on the scope in writing prior to proceeding with the project. The scope of work may accompany a contract or it may be the contract. The following are suggested steps to developing a scope of work:

1. Define the appraisal problem.
2. Schedule a date and time to inspect the property and collect field data.
3. Identify the need to research background information such as nursery tree costs, property values, or income data.
4. Identify the approach, method, and techniques to apply.
5. Disclose appropriate assumptions and limiting conditions.
6. Define the type of, and due date for, the appraisal report.
7. Estimate the price for the work and present a payment schedule.

The scope of work should be sufficient to provide credible results supported by relevant evidence and logic. It should not, however, be excessive or go beyond the bounds of the assignment. For instance, if the assignment result focused on a reproduction cost, obtaining data about the highest and best use of a property or overall property value would not be necessary.

In addition to defining the appraisal problem and the scope of work, the appraiser should identify other assignment information or parameters:

- relevant people or parties
- relevant dates (date of damage, date of hiring, inspection or report deadline, etc.)
- additional services (conferences, meetings, deposition, trial testimony, etc.)

Step Three: Collect Relevant Data

In this step, the appraiser starts to perform the scope of work. Deciding what data are relevant is often a task that spans several steps in the appraisal process. Once the scope of work and assignment have been defined, the type of data to be collected should be clear. It may be necessary to inspect the property or complete initial research to identify the data that are actually available.

Appraisals intended to be used for resolving litigious situations will likely require discussions with attorneys, clients, and other parties. Such discussions may lead the appraiser to research local ordinances, state statutes, past appellate case rulings, or contractual language.

Step Four: Analyze the Data by Applying Relevant Valuation Approaches, Methods, and Techniques

In this step, the appraiser continues to perform the scope of work by analyzing the collected data. There are three appraisal approaches: cost, sales comparison, and income (Figure 3.1). Each one involves one or more methods, and each method may involve one or more techniques.

The cost approach (Chapter 5) analyzes the costs of goods or services to estimate (1) the cost to repair the item, (2) the cost to replace the benefits provided by the item, or (3) the cost to reproduce the item. The cost approach is based on the principle of substitution. That is, a buyer would not pay more for an asset than the cost to acquire an asset with similar utility.

The income approach (Chapter 6) develops a value for income-producing assets by estimating anticipated income. Plant appraisers have traditionally used this method to estimate different types of value for green-industry businesses such as nurseries, Christmas tree farms, orchards, timber, etc. In addition, the present value of current and anticipated ecological and environmental benefits can be

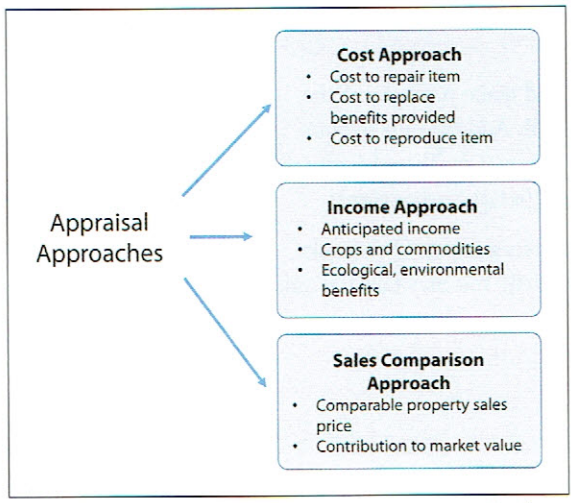

Figure 3.1. Appraisal approaches: cost, income, and sales comparison.

quantified with programs such as i-Tree Eco. The income approach is based on the principle of anticipation, or the expectation of future benefits (income) on an annual or recurring basis.

The sales comparison approach (Chapter 7) examines comparable property sale prices. For plant appraisal, the appraiser is most commonly concerned with how much the plants in question contribute to the market value of the overall property. The sales comparison approach is based on the principle of substitution, the theory that knowledgeable buyers acting in their own best interest would not pay more than the price necessary to obtain a comparable property.

Before selecting a specific approach and method, the plant appraiser should determine if there are local, state, federal, or other controlling authorities that require a specific approach and/or method. For example, in the state of Florida, methods for determining the mitigation value of roadside vegetation are described in State Administrative Code (Rule 14-040.030).

The result of data analysis is called the assignment result, which is an estimate of cost or value. When the assignment result is a cost, it should not be called an appraised value.

Step Five: Reconciliation

Reconciliation, when necessary, is the final step in developing the assignment result. USPAP requires reconciliation with every appraisal, even where only one of the three approaches is applied (The Appraisal Foundation 2016).

During reconciliation, the appraiser weighs the strengths and weaknesses of each approach, method, and technique used based on the quality of data, the level of subjectivity of the analysis, and the relevance of the approach to the appraisal problem. It is not a mathematical process. An appraiser relies on professional experience, expertise, and judgment more in reconciliation than in any other part of the appraisal process.

Reconciliation involves two steps. First, the processes that led to the different value indicators are reviewed and checked for errors. Second, the reconciliation judgement is made.

Step Six: Prepare the Report

The final step in the appraisal process is communicating the assignment result and supporting information obtained throughout the appraisal process to the client and other intended users (see Chapter 8). This can be done verbally or, more commonly, in a written report.

USPAP recognizes appraisal reports and restricted appraisal reports. An appraisal report provides either a full narrative or a summary, going into sufficient detail to lead the reader through the appraisal process. A restricted appraisal report is very short and merely states key elements of the assignment and the assignment results, such as with an abbreviated tree inventory.

An oral report is any verbal communication that transmits the assignment result from the appraiser to the client or another intended user. USPAP requires appraisers to support oral reports by creating and maintaining file notes that substantiate their conclusions.

The assignment result will be a cost or a value. Because the two are distinct from one another, the appraiser must be clear about the distinction throughout the entire appraisal process. If there is any chance that the reader might confuse a cost estimate with a value estimate, the appraiser should take care to communicate clearly which of the two the assignment result represents.

Summary of the Appraisal Process

Appraisal assignments may vary but the basic framework for the appraisal process should not. A well-defined appraisal leads to a clear scope of work and informs the selection of approaches, methods, and techniques. The appropriate data is collected and analyzed. A final result is obtained, documented, and reported.

Literature Cited

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