

Using Key Informant Interviews to Better Understand Open Space Conservation in a Developing Watershed

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Abstract. Open space provides people and the places where they live with numerous, well-documented benefits, very similar to those of trees and other landscaping. Often lost in the complicated development and growth arena, planning for the conservation of the green infrastructure of open space is important for healthy communities. The process of open space conservation provides arborists and urban foresters with opportunities to involve the community in planning and activism. Conserved open space provides arborists and urban foresters with maintenance and management opportunities and responsibilities. Although expensive and time-consuming, key informant interviews helped provide a logical process for a deeper understanding of open space conservation in a developing Pennsylvania watershed. This qualitative process can be used by urban foresters and others in more inclusive and successful planning and decision making. As an investigative tool, the interviews provided information about attitudes, issues, and obstacles expressed by local leaders. The interviews also provided evidence that concerns expressed by experienced planners since the 1960s about land use planning and open space conservation in growing areas continue to be relevant today.

Key Words. Growth and development; key informant; land use planning; open space benefits; open space conservation.

Key informant interviews are designed to provide in-depth information from people, usually those identified as knowledgeable about a particular subject. Because these interviews are conducted in a face-to-face setting, they tend not to terminate early and tend to allow participant contemplation, which provides for more complete thought and answers to open-ended questions (McCracken 1988; Bailey 1994; Rubins and Rubins 1995; Luloff 1999).

Although random interviews can be conducted for some studies, informants are traditionally identified on the basis of their organization and community positions, knowledge of the issues under study, and reputation (Bailey 1994). Some authors have criticized key informant interviews and other qualitative techniques such as focus groups as being statistically insufficient, biased, and not generalizable to larger groups of people and places (Luloff 1999). This criticism misses an important point in using qualitative methods such as key informant interviews. Interviews are completed to gather in-depth information about a particular topic from people who have similarities and knowledge about a place and the issues involved in that place. Information drawn from interviews provides a source of rich, varied, and textured data presented in local persons' words and expressions (Creswell 1998). When aggregated, the data provide a logical basis for the development of more practical, locally oriented, and detailed plans and actions for issues of central interest. Although place-based, informants can also identify attitudes and issues in the locale under study that have been recognized in other places. Thus, better and more efficient problem solving

may be facilitated from both a horizontal scale of the locale and a vertical scale of outside places with similar circumstances (Wilkinson 1991). As a participatory tool, key informant interviews not only can help researchers gather localized, culturally appropriate information but can also help build local collaborative support for further research and planning efforts and for change processes when local information is considered and implemented (Brody et al. 2003).

In 1977, the Centre County, Pennsylvania, U.S., comprehensive plan first expressed concerns about the effectiveness of local efforts in land use planning to conserve open space in the Spring Creek Watershed (Centre County Planning Commission 1977). These concerns were amplified in the findings of a 1998 International Countryside Stewardship Exchange (Alliance for the Chesapeake Bay 1997). Further, they identified parallel issues and problems discussed in the Report of the Pennsylvania 21st Century Environmental Commission (State of Pennsylvania 1998) and by Marion (1960), Clawson (1962), McHarg (1969), Levine (1980), and McMahon (2000). These concerns, expressed continuously by land use planners since the 1960s, include issues such as poor environmental information about the nature and location of important open space; open space not being considered as an element in municipal comprehensive plans; inadequate zoning and subdivision ordinances (e.g., not allowing for clustered density or mandating natural resource inventories in subdivision applications); lack of multimunicipal and multi-organizational cooperation in open space planning and acquisition; lack of an organized public interest group; lack of

capital funding; and insufficient planners and planning in rapidly growing suburban and rural areas.

In contrast, an example of a successful process for open space conservation in three New York watersheds is provided by Ehlers et al. (2000). This process contains elements found in the creation of other meaningful (e.g., large areas, quality landscapes and habitats, connections, accessibility, and usability) open space plans and systems (City of Boulder 1995; City of Davis 1996; City of Thousand Oaks 1996) and includes identifying and working with stakeholders in decision making; building multimunicipal and multiorganizational cooperatives; building public support; open space inventory and conservation prioritization at a regional or watershed level; strategy setting for open space to be protected and acquired, including regulatory (e.g., zoning) and nonregulatory (e.g., bond issue and grants) methods of acquisition and management; development of creative funding strategies (e.g., private donation); and implementation, monitoring, and evaluation. Where successful open space conservation has taken place, these tasks are performed by a dedicated entity such as the Conejo Open Space Conservation Agency in Thousand Oaks, California (Towne 1998).

The purpose of this study, funded by the Ford Foundation Community Forestry Fellowship, was to gather information from local leaders about open space conservation. In the spirit of participation (Park et al. 1993), information gathered in the key informant interviews was summarized and provided to interviewees; municipal, regional, and county planners; and elected and appointed officials. It was used in open space workshops for both the Pennsylvania Boroughs and Township Associations. It was also printed as a Sunday opinion/editorial article in the local paper, *The Centre Daily Times*, and used in the development of an open space element for a new Centre County comprehensive plan.

METHODS

Study Population

To help select the population of study, a local research advisory committee was established that included officials of municipal planning agencies and land conservancies. With recommendations from the local advisory committee, a number of key informants (Bailey 1994; Luloff 1999; Elmendorf and Luloff 2001) were selected, including municipal officials, county officials, business and industry leaders, local environmental organization leaders, a representative from an underclass interest, and a representative from the news media. Individuals on the initial informant list, except for elected officials and appointed planning commissioners, were sent a letter giving a brief explanation of the research project and then later were contacted by phone to schedule an interview. In the case of the elected officials and planning commissioners, township and borough managers were asked during their

interviews to identify an elected official and a planning commission member in their municipality who should be interviewed as well. The officials were then sent letters and called for interview scheduling. As interviews were conducted, a snowball sampling procedure was used (Bailey 1994; Luloff 1999; Elmendorf and Luloff 2001) in which interviewees were asked to provide names of other interview prospects. When the names of individuals were mentioned several times, these people were then contacted and interviewed. Again, the purpose of using these interviews was to gather information from a group of community leaders about a particular issue of importance, not to gather and compare information from randomized groups of people.

Preparation of Survey Instrument

To provide higher-quality information and consistency between interviews, a key informant interview schedule was developed with review by and input from the local research committee. The information schedule contained three sections:

1. Open Space: Interviewees were asked what the term "open space" meant to them, whether open space provided benefits, and what those benefits were. They were also asked whether residents were satisfied with the way open space was being conserved, whether a multimunicipal or connected system of open space was important, and what they considered to be the greatest obstacles to a shared system of open space.
2. Land Use and Comprehensive Planning: Interviewees were asked to describe planning in the watershed, how planning worked to conserve open space in the watershed, and obstacles in planning to conserve open space in the watershed.
3. What Can Be Done: Interviewees were asked what residents and leaders should do to conserve open space and why municipalities had difficulties working together.

Administration of Survey Instrument

A total of 104 key informant interviews were completed during a 2-month period with the following people in the 14 municipalities of the Spring Creek watershed: 15 organizational and agency leaders, 14 municipal managers, 14 planning commission members, 11 planners and landscape architects, 10 local businesspeople, 9 township supervisors, 6 zoning officers, 5 borough council members, 5 municipal solicitors, 5 developers and real estate agents, 4 engineers and architects, 4 university administrators, 1 superintendent of schools, and 1 county commissioner. Municipal managers, elected officials, and appointed planning commission members were interviewed in all municipalities. A number of the informants had multiple responsibilities and projects within the watershed, which reached across multiple municipalities.

For example, some solicitors worked for more than one municipality, and council of government and county planners worked with multiple municipalities.

Following the idea of “theoretical saturation” (Averbach and Silverstein 2003), face-to-face interviews were conducted until the information that the informants were providing became redundant. At this time, it could be reasonably concluded that a fairly comprehensive account of the issues and problems had been compiled (Bailey 1994; Luloff 1999; Elmendorf and Luloff 2001). All interviews were recorded and later transcribed by a professional secretary. The shortest interview was 25 minutes, the longest 145 minutes; the average interview time was 30 minutes.

Treatment of Data

All transcripts were marked to ensure anonymity. Each transcript was reviewed by the investigator and returned to a professional secretary for corrections. Some people provided very organized and concise answers, while others tended to be unorganized and rambling. Allowing people to talk for the amount of time they want and to answer questions in the manner and style they choose is a very important part of key informant interviews. Even when answers were rambling and unorganized, people were allowed to express themselves in the manner they saw fit, a characteristic of key informant interviews that complicates the coding and analysis process. Key informant interviews should not be dialogs that search or push for certain answers or conclusions. Rather, using an interview schedule, they should be an exercise in passive listening and interviewing. A major task in editing was to identify comments that were provided out of context and organize them in a logical manner.

Qualitative analysis requires the analyst to create or adapt codes relevant to the data, rather than to apply a set of pre-established rules (Dey 1993). Creswell (1998, p. 150) describes the process for open coding as “the process by which the researcher examines the text for salient categories of information.” During initial editing, major codes were identified for later use in organizing comments during a content analysis of the interviews. For example, among comments made about the definition of open space, the codes “no development and left in a natural state” were used; for comments made about the type of open space benefits, the codes “hunting, fishing, walking, biking, and hiking” were used; for comments about whether a shared or an intermunicipal open space system was important, the codes “absolutely, sure, yes,” and “no, nah” were used; for comments regarding the greatest difficulties in developing a shared or intermunicipal open space system, the codes “no cooperation of municipalities” and “autonomy of municipalities” were used. This coding system was not unlike the “framework” approach to qualitative data analysis described by Ritchie and Spencer (1994).

An attempt to perform content analysis of the data was made using SPSS Textsmart computer-based content analysis software. The limitation of computer-based content analysis programs has been discussed by social researchers (e.g., Fortmann 1999; Bengston 2002), and Creswell (1998) asserted that there were many different ways to analyze qualitative data. Before this particular software could be used, information gained in open-ended responses needed to be completely reviewed and edited by the investigator. This entailed both general editing and manually organizing information into logical fields or frameworks (Ritchie and Spencer 1994). In addition, Excluded Terms Files, Alias List Files, and Combination Word Categories (simple two- or three-word codes) had to be identified and programmed into the computer software. By the time this work had been completed, the transcripts had been heavily reviewed and the investigator had completed a content analysis. Further, the computer program had difficulties interpreting the exact meaning of simple words such as “yes,” “yep,” “sure,” “you bet,” “absolutely,” “no,” “nah,” “nope,” “I think so,” and “I don’t think so.” Moreover, the severe limitation of the software’s ability to recognize and interpret complex thoughts, opinions, and themes was a major problem. On the other hand, the software counted the repetition of certain words and simple categories or codes. This type of computer coding and content analysis is very helpful when making comparisons between groups of people or analyzing large volumes of text such as media stories (Krippendorff 1980; Bengston 2002). However, because this study did not require comparative analysis of groups, and because the software could not interpret complex thoughts, identify important quotations, or consider emotional responses—factors important in key informant interviews—the software was not used. Instead, the investigator completed a written content analysis (e.g., Ritchie and Spencer 1994; Creswell 1998). During this phase, the investigator organized information under the codes described above and summarized the information using descriptive statistics. Interesting and important interviewee quotations were also identified and recorded.

RESULTS AND DISCUSSION

Open Space

In 1961, the National Urban Coalition described open space as “an outdoor area in a metropolitan region which is open to freely chosen and spontaneous activity, movement, or visual exploration of a significant amount of people. The individual in this space has the chance to demonstrate mastery and with this profound satisfaction” (Cline et al. 1961, p. 11). The majority of informants expressed an understanding of open space consistent with this definition. Seventy percent recognized open space as areas left undeveloped; there was not a great deal of confusion surrounding the term. As one partici-

pant said, "I guess open space means areas that are protected from development, kept natural, and placed strategically throughout a community."

Benefits of Open Space

Communities have, and will continue, to look toward the green infrastructure of open space for an increasing number of benefits, all important in the development of community (Dwyer et al. 1991, 1992; Nowak et al. 2001), including mental and physical health (Ulrich 1988; Wolf 1998); ecological benefits, including energy conservation (Dwyer et al. 2000) and habitat, biodiversity, and water quality (Center for the Study of Law and Politics 1991; McPherson et al. 1994); education, family, and youth benefits, including passive recreation and nonsegregated places in terms of age or skill level (Wolf 1998; Nowak et al. 2001); community development benefits, including a healthy physical environment and the comfort of shared and structured symbols (Appleyard 1979; Wilkinson 1991); and economic benefits, including increased property values and governmental tax roles and, with conservation compared to intensive development, decreased costs of municipal services such as public safety and new schools and teachers (Fausold and Lilieholm 1996; Kelsey 1997, 1998).

In the interviews, topics the key informants said nothing or very little about were often as important as what they talked a great deal about. Aesthetics, recreation, and ecological benefits were the open space benefits most discussed in the interviews. There were no direct comments on the human health benefits of open space, such as stress reduction, and only 3% of the community leaders interviewed commented about the economic benefits of open space conservation, such as increased property values and property taxes. This finding is consistent with other research on the understanding of benefits from parks and open space. In a nationwide study of the benefits of local parks, Godbey et al. (1992) discovered that economic benefits were mentioned less than any other type, with less than 2% of respondents citing them. Lack of understanding about health and economic benefits could have a direct relation to a smaller degree of concern for open space planning and acquisition, especially in growing places with multiple issues and priorities and limited planning and funding resources.

Planning Tools

The results of these key informant interviews told an interesting but complicated story. As with open space benefits, there was a general lack of knowledge about tools that can be used for conserving open space. Although these municipal leaders expressed concern about the effectiveness of land use planning in conserving open space (74% were not satisfied with open space conservation and only 6% described land use planning as good), there were few comments about the use of nonregulatory tools (e.g., comprehensive plans, public edu-

cation and participation, bond issues) and regulatory tools (e.g., zoning and subdivision ordinances, official maps, growth boundaries, transfer of development rights). To conserve open space in fast-growing rural areas, leaders should be aware of and consider these types of planning tools (City of Davis 1996; City of Thousand Oaks 1996). Associated with questions about planning and regulation, informants discussed concern for the protection of private property rights. In contrast, there was a small level of support among leaders for more stringent zoning, subdivision, and land development ordinances to conserve open space. Thirty-two percent of interviewees thought that private property right issues created barriers to open space conservation, whereas 17% thought that zoning and other ordinances were inadequate.

Barriers to Conservation

The fragmented nature of planning efforts, municipal autonomy in planning and regulation, and lack of cooperation between municipalities were repeatedly identified as problems with both land use planning and open space conservation. Eighty-five percent of the interviewees responded that lack of cooperation of the 14 watershed municipalities was the largest barrier to open space conservation. The interviewees identified serious concerns about whether multimunicipal cooperation would ever happen. Reasons discussed for poor municipal cooperation included historical conflicts and grudges (55%), fear of losing power or authority (38%), the historic power and autonomy provided to Pennsylvania municipalities by the state's enabling legislation for land use planning and regulation (26%), elected officials' obligation to represent their electorate (21%), and lack of an entity to bring municipalities together (14%). It became clear that informants thought that municipalities experiencing many of the same growth pressures were not planning and working together. As one leader said, "Municipalities don't know how to work together. Instead of just thinking about your own township or borough you need to start thinking of yourselves as part of the whole Centre area." Another participant said, "We can't be members of such a flat society here. Once I walk past a municipal boundary I don't fall off the edge of the world."

The inability of Spring Creek Watershed municipalities to plan and work together to conserve open space resulted in lost conservation opportunities through land conversion and increasing land prices in an accelerated and competitive land development market. These types of problems are discussed today (Benedict 2000; McMahan 2000) and were discussed decades ago by Clawson (1962) and Levine (1980). Like many problems facing open space conservation, they are not new. It seems very likely that these municipalities working alone did not have the planning, funding (e.g., tax revenue), or administrative capacity to allow for meaningful open space conservation in a high-priced and competitive real-estate

market surrounded by the multiple agendas and pressures of growth.

Public Participation

The interviewees talked about the need for public involvement and support for open space conservation. Sixty-six percent of the informants replied that if people want open space conserved, they need to become more active in government. Back in 1962, Clawson had described the weakest link in open space conservation as the lack of an organized and effective public interest group. A public interest group or "Voice" (Fortmann and Kusel 1990) is especially important where there are multiple growth issues (e.g., construction of major roads, new schools, and large-scale commercial and subdivision development) already on the agenda of often overwhelmed citizens, planners, and elected officials. Without public interest and action, open space conservation in fast-growing places does not receive significant attention and simply becomes the per-chance residual of ongoing development (Austin and Potter 2003). Again, decades ago, in the 1960s, Clawson (1962) and McHarg (1969) believed that open space conservation was not seen as an important political or social issue, that public apathy was extreme, and that citizen advocacy for open space conservation, and the required land use planning, was ineffective and insufficient. These interviews provided evidence that long-standing concerns remain about the public's willingness and ability to participate in open space conservation and other important community decisions. As one informant said, "When people see the words 'planning' or 'preservation,' they feel that means it's going to be there for eternity. They see green trees and corn and they think they'll always be there. Residents have a false sense of security." Another stated, "You hear a universal complaint amongst professionals in public administration [that] the public doesn't participate."

CONCLUSIONS

The key informant interviews were completed to gather information on the attitudes of community leaders toward open space conservation. Unfortunately, the key informant interview process did have a negative component. Specifically, some leaders viewed the investigator as a biased advocate of municipal consolidation or regionalization. They refused to be interviewed, did not complete their interviews in a helpful manner, and encouraged other leaders not to participate. However, such types of confrontation can be anticipated when conducting face-to-face key informant interviews with a broad group of people. For the most part, these problems were dealt with in face-to-face discussions with distrustful individuals that attempted to clarify the reasons for the study. To increase the relevancy and quality of information, interviewers must make every effort to reduce the degree of personal bias they interject during the interview process. This

can be done by consistently using a well-constructed interview schedule and by listening rather than engaging in leading questions and dialog.

The interviews provided an opportunity for a deeper understanding of the attitudes toward and the issues surrounding open space conservation in a growing place. Clawson (1962, p. 124) surmised, "a sense of loss of treasured open space is a common American emotional experience today." During the interviews, a tone of concern became apparent about not only open space conservation, but also the changing nature of the Spring Creek watershed. This concern is probably not unlike others found in places experiencing rapid growth and change, as discussed in the "boom town" literature (Wilkinson et al. 1982). As one interviewee said, "Suddenly the world has awoken to this place as a little gem in the middle of Pennsylvania and decided it was going to be a retail Mecca." Another participant stated, "People are relatively happy, but I don't think that is anything our township has done. I think it is just something that just hasn't happened yet." Identifying this type of tone is exactly why key informant interviews are valuable and why they should be completed.

A number of open space benefits associated with mental and physical health, those associated with community and community development, and those associated with economic benefits were not discussed by the vast majority of participants. It is very likely that a person's understanding of positive open space benefits is related to a positive attitude about the importance of its conservation. Perhaps the current public and private efforts at educating people about the benefits of open space and other natural resources have not been totally successful and should be examined and modified.

These interviews also provided evidence that concerns expressed by experienced planners since the 1960s about using land use planning for open space conservation in growing areas remain today. The vast majority of leaders did not discuss planning tools that could be used for conservation but thought that land use planning simply was not working to conserve open space. It is clear that for meaningful conservation, open space must be planned for and financed in growth, much like state departments of transportation plan among municipalities for highways and local municipalities plan for schools, roads, and other assets (Benedict 2000; McMahan 2000). Randall Arendt (1994) described a combination of regulatory and nonregulatory steps that could be used for open space planning and conservation:

- Understanding and documentation of open space resources.
- Understanding growth and development in municipal and county comprehensive plans.
- Including open space conservation as an element in comprehensive plans.

- Sound and progressive zoning and subdivision ordinances.
- A professional development application review process that supports conservation development.
- Good working relations between developers and municipal officials.
- An entity and process for multijurisdictional open space planning and acquisition.
- Tools such as bond issues to provide public funding for land acquisition.
- Strong leadership, citizen support, and education about the benefits of open space.

A successful process for open space conservation is important in sustaining healthy urban forests and the benefits they provide (Dwyer et al. 2003). Furthermore, arborists and urban foresters should play an important role in the dynamic planning and management processes required to conserve these landscapes. Thus, their knowledge of land use planning and other policy tools used during community development is important.

Information gathered in this study indicated that a lack of multimunicipal and multiorganizational cooperation remained a problem because of funding, administrative, and planning realities (Towne 1998; Austin and Potter 2003). Years ago, Clawson (1962), Cline et al. (1964), and Levine (1980) described the weakest link in open space conservation as the lack of an organized and effective public interest group. Open space conservation is a political struggle in the broadest sense, and the opposition of developers and speculators can be highly funded, powerful, and determined. Although open space conservation was important in the watershed, there was strong evidence that an organized and effective public interest group did not exist to support it in a complicated arena of growth issues. In this study, local leaders commented that strong public involvement was a necessary tool for bringing about desired change, and that this was lacking. Open space conservation had not found a strong and organized public voice to help compete with other growth interests, to concentrate on open space conservation rather than other growth issues, and to build municipal and organizational cooperatives. An organized entity concentrating on these actions has been an essential part of successful programs in other parts of the country (City of Boulder 1995; City of Thousand Oaks 1996).

The interviews provided evidence that leaders of the Spring Creek watershed thought open space was important and were concerned about its conservation. However, for the most part, they did not fully understand the benefits of open space, the benefits of planning for open space, or the planning and collaborative techniques needed to conserve it in their rapidly growing watershed. These are important obstacles

that have been facing open space conservation for the past 40 years.

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Résumé. Les grands espaces fournissent aux gens ainsi qu'aux endroits où ils vivent de nombreux bénéfices bien documentés très similaires aux arbres et aux autres aménagements paysagers. Souvent noyée dans l'arène compliquée du développement et de la croissance, la planification de la conservation des infrastructures vertes des grands espaces est importante pour des communautés saines. Le processus de préservation des grands espaces procure des

opportunités aux arboriculteurs et aux forestiers urbains d'implication communautaire en regard de la planification et de la réalisation. La conservation des grands espaces donne des opportunités aux arboriculteurs et aux forestiers urbains en regard de leur entretien et de leur gestion. Même si cela exige beaucoup en terme de temps et de dépenses, des interviews auprès des personnes-clés ont permis de faciliter un processus logique pour une meilleure compréhension de la conservation d'un grand espace dans une zone de ligne de partage des eaux en Pennsylvanie. Cette démarche qualitative peut être utilisée par les forestiers urbains ainsi que d'autres au sein d'une processus plus inclusif et réussi de planification et de décision. À titre d'outil d'enquête, les interviews ont fourni de l'information à propos des opinions, des enjeux et des obstacles exprimés par les leaders locaux. Les interviews ont aussi permis de dégager des faits importants, toujours d'actualité, exprimés par des planificateurs expérimentés depuis les années 60 à propos de la planification du territoire et de la conservation des grands espaces dans des zones en développement.

Zusammenfassung. Offene Räume bieten für Menschen und ihre Lebensräume ebenso zahlreiche Vorteile wie Baum- oder andere Landschaften. Das Planen und Erhalten einer grünen Infrastruktur ist für gesunde Kommunen sehr wichtig, aber es geht oft verloren in der komplizierten Entwicklung und Planung. Der Prozess für die Erhaltung offener Räume gibt Arboristen und Forstleuten die Gelegenheit, sich in die Planung und Ausführung zu involvieren. Erhalten Freiflächen bieten Arboristen und Forstleuten Chancen und Verantwortung. Die Interviews mit Schlüsselinformanten sind zwar teuer und zeitaufwendig, aber sie unterstützen einen logischen Prozess für

ein tieferes Verständnis für die Erhaltung offener Räume in einem wachsenden Gebiet in Pennsylvanien. Dieser qualitative Prozess kann von Forstleuten und anderen zum tieferen Nutzen bei Planung und Entscheidung helfen. Als ein Untersuchungswerkzeug lieferten die Interviews Informationen über die Einstellungen, Themen und Schwierigkeiten, die die Informanten ausdrückten. Die Interviews lieferten auch Beweis dafür, dass die seit 1960 von erfahrenen Planern zur Sprache gebrachten Bedenken auch heute noch relevant sind.

Resumen. Los espacios abiertos proporcionan a la gente los lugares con numerosos beneficios muy similares a los árboles y otros paisajes. Con frecuencia la pérdida de estos espacios en los desarrollos hace que la planeación para la conservación de la infraestructura verde de espacios abiertos sea importante para la salud de la comunidad. Los procesos de conservación de espacios abiertos proporcionan a los arboristas y dasónomos urbanos oportunidades para comprometer a la comunidad en la planeación y el activismo. Los espacios abiertos conservados proporcionan también a los arboristas y dasónomos urbanos oportunidades de manejo y responsabilidades. A pesar del tiempo y costos, las entrevistas son la clave de información y ayudan a dar un proceso lógico para un entendimiento profundo de la conservación de estos espacios en Pennsylvania. Este proceso cualitativo puede ser usado por los dasónomos urbanos y otros, en planeación y toma de decisiones. Como una herramienta de investigación, las entrevistas proporcionan información acerca de las actitudes, temas y obstáculos expresados por los líderes locales. Las entrevistas también proporcionan evidencia de que la conservación en áreas en crecimiento es hoy muy relevante.