Learning from Landowners:

Exploring Peer Exchange in the Private Landowner Community through
Organizational Case Studies

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Abstract

Over half of the forested land in the United States is privately owned. As a majority of this private land is divided into individual or family-owned properties, the decisions made by these owners can have substantial implications for U.S. forests. However, traditional professional outreach efforts have been unsuccessful in reaching the majority of 'family forest' owners, resulting in a lack of accessible management-related information for this community. This study examined peer-to-peer learning, or peer exchange, as an alternative means of diffusing information throughout the private landowner community, a burgeoning but as yet underrepresented area of research in the natural resource literature base. Case study methodology was used to examine landowner/community organizations in order to better understand a) how and to what degree peer exchange was fostered within each organization, b) how these organizations influenced landowners and contributed to information dissemination within the landowner community, and c) how the examples provided by these organizational models may be translated to inform future peer exchange and information outreach efforts in the family forest landowner community, specifically.

Qualitative data were collected from five diverse landowner organizations in the United States and Australia via 61 in-depth interviews with organizational leaders and landowning members, as well as from supplementary observation of group functions. Results from analysis revealed a variety of strong common themes across cases. The organizations utilized peer exchange and social incentives in concert with professional resources to foster credible, appealing atmospheres and comfortable learning environments. Participants gained access to networks of both practical, peer-based information as well as technical, professional-based information. Additionally, organizations increased participant awareness of landowning issues and provided assistance in refinement and accomplishment of management goals. The results of this research can inform future efforts in fostering peer exchange and information dissemination in the private landowner community, with specific considerations for practitioners seeking alternative information channels for reaching the masses of family forest owners in the United States.

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Introduction and Background

Over half of the forested land in the United States is privately owned (Butler 2008). While a portion of this land is owned by industrial, corporate, or tribal operations, the majority of private forest land in the United States is owned by individuals, families, or other unincorporated entities; this latter category of "non-industrial private" or "small-scale private" forest lands is commonly referred to as "family forests" (Butler 2008; Butler & Leatherberry 2004; Smith et al. 2004). Reasons for ownership of family forests are diverse: recreation, hunting, wildlife or conservation sanctuaries, aesthetics, permanent habitation, vacation residence, buffers to agricultural land, and small scale timber operations. Current estimates show that 10.4 million family forest owners own approximately 62.3% of all private forest land, and 35.1% of total forest land in the United States (Butler 2008). Numbers of this magnitude indicate that actions taken on family forest lands will have important implications for the nation's overall forest resource.

Private forest lands as a whole contribute to public goods such as the supply of timber and recreation, as well as serving important ecological roles such as regulating water flows and providing habitat for wildlife (Smith et al. 2004; Bliss & Martin 1988; Butler & Leatherberry 2004). However, according to Nie and Miller (2010), private forest land in the United States faces threats from population growth and divestiture of corporate timberland, which have encouraged and enabled an increase in residential development. Development has led to ever increasing fragmentation of private lands, as well as increased development in the Wildland-Urban Interface (WUI). By 2030, housing density is projected to increase substantially in 44 million acres of private U.S. forest land, with net losses of forest due to development summing to an area the size of the state of Georgia (Nie & Miller 2010). In Minnesota alone, household density may increase anywhere from 20% to 170% in most forested counties (Haapoja 2010). In combination

with other forest losses, forest land in the United States is projected to decrease by a net total of approximately 23 million acres by 2050 (Nie & Miller 2010).

These threats to U.S. forest land further stress the importance of conserving non-corporate private lands as a mainstay of sustainably managed forest resource in the United States. However, according to Sampson and DeCoster (2000) many private forest landowners face pressures to sell their land in the form of over-taxation, encroaching urban pressure, and loss of income potential. Additionally, a large portion of private forest land is held by owners who are 65+ years old, foreshadowing abundant land ownership turnover in the near future. New owners are increasingly urban, decreasingly interested in forestry practices, and hold increasingly smaller plots of forest land, magnifying the problem of professional engagement (Sampson & DeCoster 2000; Birch 1997). Yet in order to prevent further parcelization and development of current non-industrial forest landscapes, efforts must be made to further engage family forest landowners in the land owning and management paradigm. Therefore, greater understanding is needed concerning how to motivate interest, dedication, and sustainable management behaviors on family forest land, especially in light of the decreasing availability of professional resources.

The Family Forest Owner Community

A robust research history exists surrounding the questions of who family forest owners are and what motivates them to manage their woods (See Bliss & Martin 1988, Butler & Leatherberry 2004, and Finley & Kittredge 2006 for examples). The over 10 million owners of these lands are as diverse as the uses to which those lands are put, but on average they are older and have a higher rate of college attendance than the average American, live on or very near their forest land, and own less than 50 acres (Butler & Leatherberry 2004). Additionally, most owners have owned their land for at least 10 years, with an average tenure of 26 years (Butler 2008).

Traditional attempts at reaching this community have included direct incentives, such as tax benefits for forest management practices and government cost-share programs to help alleviate the financial burden of implementing management practices, as well as indirect incentives, such as technical assistance programs through the United States Forest Service and university extension services aimed at providing professional forestry advice (Kilgore et al. 2007; Skok & Gregersen 1975). While these methods have generally been considered successful in achieving desired outcomes for landowners who utilize them, professional agencies are still facing substantial barriers in terms of information diffusion to the family forest owner community (Cubbage, New, & Moulton 1996; Sagor 2003). For example, Butler and Leatherberry (2004) found that only 16% of family forest owners have sought management advice, and only 3% have written management plans. And while approximately half of all family forest owners have performed a harvest (including firewood) at some point, the vast majority had not sought professional advice for their most recent harvest. Studies have shown that unassisted harvests can yield fewer returns for landowners at the expense of poorer harvesting practices (Cubbage, New & Moulton 1996).

There are several factors that contribute to the limited reach of professional assistance into family forest owner communities, staff resources being perhaps the most limiting factor. In the words of Blatner and Baumgartner (1991), "the ability of NIPF assistance and education programs to carry out their objectives is, in large part, a function of the number of people available to do the work" (p. 93). This is perhaps especially true for the approximately nine million family forest landowners who hold smaller acreages, i.e. less than 50 acres; they far outnumber the Forest Service agents, extension agents, and private foresters available to assist them, and often represent a lower priority for agency resource investment. This is because while smaller acreage owners represent the overwhelming majority of family forest owners, nearly 90%, they own only approximately 30% of all family forest lands. The remaining nearly 70% of land is owned by a mere 11% of the family forest owner population, who thus represent a more efficient investment of resources (Butler & Leatherberry 2004). Additionally, while trust

in expert institutions is sometimes assumed, according to Wynne (1996), he argues that it may not always be implicit for the lay public. Indeed, the literature shows that some landowners harbor negative perceptions of government and government programs (Greene et al. 2005), and this may also present barriers to the reach of agencies into this community.

Furthermore, many current incentive and assistance efforts focus on timber production, whereas many studies indicate that timber production and economic gain are not primary motivating factors for owning woodland among family forest owners. Primary reasons include aesthetics, recreation, desire to foster wildlife or biodiversity, residence, and legacy (Butler & Leatherberry 2004; Finley and Kittredge 2006; Bliss and Martin 1988). While timber production is of great concern to the professional forestry sector, failure to recognize and cater to these diverse needs of private landowners may be contributing to a lack of engagement in traditional forestry programs.

Finally, current forestry outreach efforts tend toward the traditional pedagogical style of teaching landowners, a doctrine that centers on a one-way, dependant, teacher-to-student transfer of knowledge. However, according to studies by Malcom Knowles (1990), the last several decades of research on adult learning theory has shown that this teacher-to-student method is less effective for teaching adults. Adults prefer a two-way learning environment that allows them to utilize personal experience for task-based learning objectives. Additionally, adults are disinclined toward hierarchical settings with 'experts,' and prefer a learning environment that is "informal, comfortable, flexible, [and] non-threatening" (Knowles 1990, p. 54; Gootee 2010). A recent study by Gootee (2010) demonstrates how a lack of adherence to the principles of adult learning theory can lead to ineffective communication between professionals and non-professional forest landowners.

The combination of these factors has contributed to an overall disparity of adequate, accessible information for landowners concerning sustainable management of their

woodlands. In the wake of these weaknesses there is opportunity for a non-hierarchical, landowner community-driven approach to landowner motivation and education. One potential mechanism for such community involvement is through the fostering of 'peer-to-peer learning' in the private landowner community.

Theory Background – What is Peer-to-Peer Learning?

The concept of peer-to-peer learning represents a growing area of interest in the natural resource sector. Peer-to-peer learning, or simply peer learning, is frequently employed as an educational tool in the higher learning sector (Havnes 2008). Boud and Lee (2005) define peer learning as a "'two-way reciprocal learning activity' (Boud, Cohen & Sampson, 2001), [that] refers to networks of learning relationships, among students and significant others" (p. 503). These "peer learning communities" have been described as a "process" rather than a "product," where trust, equality, and "affective" (emotional) learning are key to group function (Tosey & Gregory 1998). Facilitation is integral, but peers are encouraged to themselves act as facilitators and contribute to the 'expert' knowledge of the group (Tosey & Gregory 1998; Copenheaver et al. 2004). In this way, as Copenheaver et al. (2004) describe it, "'peer-assisted learning' frees participants from their conventional, self-assigned role of passive learners and encourages self-motivated learning" (p. 125). This element of "product" vs. "process" is evident in adult learning theory as well, with adults seeming to prefer the process of learning itself rather than the end result or product of it (Rogers 1961, in Knowles 1990). A study by Clark et al. (1997) demonstrated positive effects of peer learning for senior learning communities. Members of small, peer-moderated retirement study groups expressed appreciation for the social environment, as well as "learning from the knowledge and experience of others" in the peer group – a promising finding for the landowner community as a large percentage of this community is comprised of retirees.

A variety of social theories shed light on the value of peer learning. Social learning theory, as described by Muro and Jeffries (2008), entails as catalysts for learning many of

the factors described above as integral to peer learning, such as facilitation, small group work, participation, and diversity of knowledge sources. These factors can lead to social learning, which can yield a variety of benefits such as increased knowledge and technical skills, attitude change, trust, relationship-building and common understanding, and behavior change and action (Muro & Jeffries 2008). Social learning is seen as an important, and perhaps necessary, catalyst for natural resource management (Pahl-Wostl et al. 2007(1)). Additionally, peer learning may play an integral role in the diffusion of innovations. This can be seen in Everett Rogers' (1995) discourse on diffusion theory, in which he states that "diffusion is fundamentally a social process (p. 34)." As opposed to emphasizing expert advice, diffusion theory suggests that peer learning and observation may play a larger role in catalyzing the spread of new ideas:

> *Most individuals evaluate an innovation, not on the basis of scientific research by experts, but through the subjective evaluations of near-peers who have adopted the innovation. These near-peers thus serve as role models, whose innovative behavior tends to be imitated by others in their system. (Rogers 1995, p. 36)*

The Potential for Peer Learning in the Landowner Community

Corresponding with social learning theory, studies have shown that landowners tend to consult family, friends, and other peers when making action-oriented management decisions for their property (Sagor 2003). A German study found that over half of the forest landowner participants cited family as the biggest influence on their management decisions. Though foresters and extension agents were deemed important and were consulted, landowners still consulted with trusted members of their social community:

> *… they listen to the advice of the forester and then discuss it with family and friends and develop their own ideas…the management of privately owned forests is in accordance with the norms of the family and close social surroundings of the owner. Norms with origins outside of this social circle have less influence. (Bieling 2004, p. 295).*

A previously cited study by Gootee (2010) indicates that non-professional peers were trusted by forest landowners because of peers' ability to empathize. Landowners in the study who did not feel respected or understood by professionals turned instead to non-

professional neighbors based on the notion that they could provide solidarity and shared understanding. Further evidence of affinity for peer-based information can be seen in a Michigan-based survey in which members of a peer-based landowner education program were significantly more likely to engage in forest management activities than those enrolled in the cost-share program or those affiliated with the state agency information and education program (Potter-Witter 2005). These studies indicate the potential benefit of employing peer-based learning in the landowning community. If these are indeed the networks that landowners trust and utilize for advice-seeking and management action, then these are the networks that resource professionals can aim to inform.

Peer information is rooted in local experience and knowledge, which has itself received continually growing interest in the literature (Blomquist, Dinar & Kemper 2010). For decades, studies of farming and forest-owning communities in developing countries have reflected the questioning of traditional top-down methods of informational and technological extension that exclude local indigenous knowledge; more and more, local knowledge and experimentation is seen as valuable, emphasizing the need to incorporate local experience and ideas into the research and development and resource management processes (Chambers et al. 1989; Sumberg & Okali 1997). This same notion of local participatory action can be seen in studies in developed nations in the agricultural (Andrew 2003) and water resource management sectors (Pahl-Wostl et al. 2007(2); Curtis, Shindler & Wright 2002).

Peer learning in the family forest landowner community represents a small but growing area of research interest in the United States. Rickenbach (2009) describes peer learning in the forest landowner community by stating that, "unlike traditional technical assistance and outreach, knowledge is primarily shared among landowners as opposed to being derived from natural resource professionals" (p. 593). Peer learning can thus be understood to mean the exchange of ideas and information between landowners and family, friends, and other landowners within a community-based, or 'bottom-up,' system. This system is contrasted with the absorption of ideas from professional foresters,

educators, and government officials in the traditional expert-oriented, or 'top-down,' information system. For this reason, the term 'peer exchange' is used throughout this document as a descriptor of the process of peers learning from and teaching one another.

Research suggests that peer exchange may facilitate the dissemination of professional-based information into the landowner community beyond the standard capabilities of traditional top-down approaches (Fletcher & Reed 1996; Catanzaro 2008). A recent study of the New York Master Forest Owners demonstrates the ability of peer exchange to aid in the diffusion of information, ideas, and new behaviors to the broader landowning community. Landowner participants who had had contact with Master Forest Owner volunteers reported positive behaviors such as seeking further information from professionals, creating management plans, and engaging in management activities such as stand thinning. In addition to healthier forests, these landowners enjoyed economic benefits, such as higher timber prices, as a result of actions taken after consultation with a Master Forest Owner. (Broussard Allred et al. 2010).

Research Justification

While recent peer exchange research is promising, further study is needed toward understanding its role in informing and motivating the ideas and behaviors of private landowners. It is also important to further explore what formats are most conducive to fostering peer-based learning environments. One potential medium for facilitating peer exchange is that of landowner community-based organizations. Studies of agricultural landowning communities in developing countries indicate a variety of benefits of landowner organizations, or 'farm groups,' consisting of mainly community members, as well as some professionals (Chambers et al. 1989, Norman et al. 1989). Some of these discussed benefits include information exchange, empowerment of both the individual and the community for action and resource-sharing, and networking opportunities both between farmers, and between farmers and professionals.

In the U.S., various types of landowner-dominated organizations exist, including a variety of 'Master Volunteer' programs, landowner cooperatives, Landcare groups, and other volunteer or community groups. An example that is specific to the family forest owner community is forest cooperatives, defined as "user-owned and user-controlled forestry-related businesses that distribute benefits to members on the basis of their use" (Blinn 2006). Forest cooperatives are prominent in Canada, and more recently have seen resurgence in the U.S. after fading in the 1970's (Wyatt & Bourgoin 2010, Rickenbach 2003). Forest cooperatives, as well as the other landowner organizations listed, provide a variety of opportunities for landowners to interact and exchange ideas, as well as opportunities to network with professional resources.

As Rickenbach (2009) states, the "emergence of local landowner associations and peer-to-peer learning requires research methods that better capture the social nature of these new directions." There is currently a paucity of research exploring the role of peer-based landowner organizations in influencing the private landowner community. This study seeks to contribute to filling that gap by using a qualitative approach to provide a richer understanding of various peer-based organizational models in the landowner community, and the role that they play in influencing participants' informational networks, attitudes, and behaviors. This study also seeks to further understand how these organizations may contribute to the diffusion of information and ideas to the broader landowning community, thus increasing the number of landowners exposed to new knowledge.

The following research questions guide inquiry:

1) How and to what extent is peer exchange fostered and utilized within these various organizational models?

2) How do these models influence landowners and contribute to information dissemination within the landowner community?

- Where/from whom do landowners get their information? What type of information do they seek?
- How has involvement in the organizations affected the type, quality, and quantity of information sought and their access to information?
- What value do landowners see in peer exchange?

3) How can the examples provided by these models be translated to inform future peer learning efforts in the family forest landowner community, specifically?

The results of this research will seek to inform future efforts in fostering peer exchange and information dissemination in the private landowner community, with specific implications for the family forest owner community. Further understanding concerning how to inform this vast community is crucial if we are to hope for family forest lands to remain a sustainable and significant component of our nation's forest resource. Ultimately, the collective decisions made on family forest lands have great implications for both the long-term viability of the United States forest resource and for the overall efforts of forest ecosystem conservation.

Methods

Approach Background

A qualitative research methodology was chosen for this exploratory study. Qualitative research designs are frequently employed in the social sciences as a means of obtaining rich, detailed insight into social phenomena, and are especially useful for newer areas of study (Miles & Huberman 1994; Neuman 2000). As peer-to-peer learning is still a burgeoning area of research in the family forest owner literature, qualitative research can contribute to eliciting new ideas for the field and defining future research needs.

The specific qualitative approach chosen for this study was that of a comparative case-study, as described by Yin (1989):

> *In general, case studies are the preferred strategy when "how" or "why" questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context. (p. 13)*

Yin's standards for the case study approach fit well with the design and goals of this study. The primary research questions are largely "how" questions about contemporary social/organizational phenomena over which the researchers have no control, only the ability to observe and inquire. Within the context of the study, the phenomena in question are peer exchange and information diffusion through the landowner community.

The primary vehicle for data collection was that of in-depth interviews, described by Yin as one of the most important sources of evidence for case studies. As all chosen cases had a range of currently active members and leaders, the study leant itself well to personal interviews. Supplementary data were also collected in the form of direct observation while in the field, which provided illustration and support for some of the study's emergent themes. Additionally, use of organizational documentation (websites, newsletters, meeting handouts, organizational literature) facilitated collection and verification of background information. Yin (1989) emphasizes the importance of using multiple data sources such as these.

Study Design

The goal in selecting individual cases for this study was to represent a diversity of organizational models, in order to be inclusive of the various examples of peer learning in the private landowner community. Five cases were completed, with a total of 61 interviews with group members and leaders. The following case selection protocol was considered when selecting cases in the study:

- Diversity of power origin and structure: Whereas the traditional learning model of teacher-to-student or professional-to-layperson represents an expert-driven power structure, a peer-based learning model incorporates a more community-driven or grassroots power structure into the learning process (Catanzaro 2008). The cases were chosen to represent a range on this continuum of 'top-down' to 'bottom-up' power structures, in order to observe how peer exchange developed in both expert-led and grassroots contexts. This guideline had the strongest influence on case selection.

- Diversity of target landowner community: In order to better inform the forestry sector, this study sought to examine models of peer learning in various landowner community types – forest and non-forest oriented – to further understanding of current efforts in the forest landowner sector, as well as to understand what applications in other landowner sectors may have to contribute to the forest owner community.

- Geographic Diversity: Cases were to represent a range of locations, avoiding geographic clumping, in order to represent a broader scope of cultures, ecosystems, and area-specific problems and needs. The scope of each group was also noted, as it could affect groups' potential spheres of influence, resource access, and abilities to focus locally.

To allow for observation, all individual cases were to be currently active programs or organizations that contained elements of or opportunities for peer exchange. Other contributing selection factors included scale, notoriety/success of the organization, convenience, and mutual interest in involvement with the project. Five cases were chosen in total; three from the United States, and two from Queensland, Australia (Table 1). Data were collected on a case-by-case basis over the span of approximately 10 months. Three main models of landowner organizations were examined: an Extension-based model, a cooperative model, and a unique Australian-based organizational model called Landcare. The final three cases examine the Landcare model in both the United States and in its original context in Australia, looking at both production-oriented and restoration-oriented models. Though the longevities of the five organizations varied, all could largely be considered 'success stories.'

Contact was made via phone or e-mail with a leader from each organization to determine suitability for the study and willingness to participate. Subsequent conversations with this central contact were arranged to organize the site visit and to select participants. In some instances, upon discretion of the central contact, participants were initially contacted, and sometimes scheduled, by the central contact prior to communication with the researcher in order to build credibility and facilitate trust. This facilitation was especially useful in Australia, where the research and cultural contexts were less well known, and contacting participants would have been more difficult prior to departure from the United States. In other situations, potential participants were contacted directly by the researcher to determine suitability and willingness to participate, with a follow-up call or email with selected participants to schedule the interview.

Participants for the study were selected using a purposive sampling technique. This approach was chosen due to the qualitative nature of the study and small sample size for each case; purposive sampling allowed for targeted information retrieval and assurance of a richer understanding of what each case had to offer. Participant selection guidelines were provided to the central contacts for each case. To control for potential bias, contacts

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were asked to identify a list of participants that attempted to incorporate a mix of the following:

- Larger and smaller acreage landowners

- Newer and longer-time members

- Varying levels of involvement in the organization. Note that while some less-involved participants were included in the sample, the majority of participants included were on the more heavily involved end, as they were expected to provide more productive, informative interviews, and because the central contacts were better acquainted with these members.

- Several individuals (in addition to the contact) that could be interviewed as "leaders" within the study group (as opposed to "members," who comprised the majority of participants)

Ongoing dialogue with the central contacts, as well as pre-interview calls with potential participants whenever possible, helped to maintain quality assurance. As the majority of selected participants were individuals that the central contacts knew, participants do not provide a representative sample of the groups' respective memberships; rather the intent was to provide an informative sample that could provide rich insight into the cases.

Table 1: Summary table of case selection

	Location	Scale	Target Community	Dominant Power Structure	Length of Residency (Days)	Total Interviews	
						Members	Leaders
Master Woodland Manager Program (MWM)	Oregon, USA	State-wide/ Regional	Forest landowners	Top-down	4	14	
						11	3
Kickapoo Woods Cooperative (KWC)	Wisconsin, USA	Regional	Forest landowners	Bottom-up	4	11	
						8	3
Grayson Landcare (GLC)	Virginia, USA	Regional /Local	Pastoral/ Forest/Non landowners	Mixed	5	12	
						9	3
Dalrymple Landcare Committee (DLC)	Queensland, AUS – Dry Tropics	Regional /Local	Pastoral landowners	Mixed	6	12	
						9	3
Trees for the Evelyn and Atherton Tablelands (TREAT)	Queensland, AUS – Wet Tropics	Local	Forest/ Pastoral/Non landowners	Bottom-up/Mixed	5	12	
						10	2

Cases 1-5, respectively

Data Collection – Process and Design

Process

Interviews took place over the course of four to six days for each case. Up to five interviews took place each day, depending on travel arrangements of the researcher(s), availability of the participants, and inclusion of organizational event attendance in the research schedule. Interview lengths varied, ranging from 39 minutes to 1 hour 48 minutes, but averaging about one hour long; they took place in a location that was convenient for participants, usually their homes or places of work. All interviews were digitally recorded, with participant consent. Some interviews were performed with multiple persons from a family; these were counted as a single interview.

Digital and field notes were kept to highlight key points, areas of confusion or uncertainty, and repeated themes from the interviews. These notes helped to facilitate the writing of post-trip summary reflections, which were created in order to capture the researcher's thoughts on each case while they were still fresh. These write-ups included reflections on the general themes that arose from the case and how themes connected back to earlier cases, as well as summaries for each individual interview and organizational event attended during the field residency. The case summaries helped to identify preliminary results, and aided in the creation of inductive codes used during data analysis.

The field residencies also allowed for supplementary observational data that contributed to the richness of the case study. While all cases allowed the opportunity for property visits and interaction with the local culture and environment, some cases allowed opportunities for observation of various organizational events, such as meetings and workshops/field days, as well as greater opportunity for informal interaction and socializing with participants and other involved individuals outside the context of interviews. These opportunities allowed the researcher to see participant/member/leader

interactions within these social and educational contexts first-hand, and were a beneficial addition to the researchers' understanding of the research context and emergent themes.

Design

The purpose of collecting interview data was to gain a rich understanding of the role of peer-to-peer interaction and learning in each organization via participants' experiences within and outside of the organization. The primary tool utilized in the execution of the interviews was an interview guide created to be largely consistent across all five cases, with minor adjustments made to account for the particular circumstances of each case. Separate interview guide tools were created for leader participants and member participants (Appendix A). Questions were structured in a format that provided flexibility within the interview, to allow for the richness of the conversation to fully evolve.

The goal was to ask a series of questions that would foster a conversation between the researcher(s) and participant(s) to inform the research questions; namely, to elicit how well the organization functioned as a learning tool, and if or how it contributed to the diffusion of information within the landowner community. The goal of the questions targeted at the leader participants was to ascertain background information about the program (goals, history, functions, and achievements), as well as insight into the structure of the social network associated with the program. The role of peer learning in the organization's goals, and other elements of education, peer interaction, and information dissemination were elucidated through these interviews. Additionally, leader participants were asked questions about the general membership. Questions directed at member participants were to provide insight into why they became involved in the organization, how well it addressed their needs, and the affect that involvement had on their knowledge, social and information network, perceptions, overall involvement with pertinent issues, and managerial behaviors or goals. The most important segment of questioning for both leaders and participants delved into the peer-to-peer interaction and networking aspect of the organization. Leader participants were questioned on the

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internal and external communication flow for the group, as well as how peer-to-peer learning factored into the goals and structure of the organization, and what evidence they had observed of peer-to-peer interaction occurring within and beyond the group. Member participants were questioned on their information sources, and whether or not these had changed as a result of involvement. They were also asked to describe their interactions with other members and leaders/professionals, and whether or not they had been able to learn from or teach their peers. Finally, member participants were queried on their interactions with landowners outside of the organization's network, in order to gain insight into the organization's contribution to information diffusion more broadly throughout the community.

Analytical Approach

The approach used to analyze the interview data for this study was a system of thematic coding, using both deductively and inductively derived codes that were relevant to the research questions (Appendix C). Reflecting the code creation process described by Miles and Huberman (1994), deductive influence for the codes stemmed from the interview guide, which was based on review of the literature, while inductive influence came from common themes that arose from the interviews, meetings, and field observations, which were aided by the post-trip written summaries.

In preparation for coding, all interviews were fully transcribed by the primary researcher or by hired transcribers. Researcher feedback and guidance, as well as post-transcription review by the researcher of completed transcripts helped to maintain consistency among transcripts produced from different transcribers. Additionally, a code sheet of typing conventions was provided to all transcribers to facilitate and standardize the process (Appendix B).

Figure 1 summarizes the analytical process. First, completed transcripts were hand coded (Appendix D). Each interview was coded separately, after which appropriate segments of

transcript, hereafter referred to as 'quotes,' were collected as raw data in a separate document for each of the five case studies. Quotes were labeled by interviewee number and separated by code. Quotes were then reorganized within each code, if necessary, and sub-themes for individual codes were created where appropriate. This raw data were then synthesized for each code; summaries were written to represent the body of data collected for the code, highlighting emergent ideas and reflecting the voices of the participants for each case. At this stage, the majority of the original quotes were retained to provide reference and allow for transparency in the analytical process, or what Yin refers to as maintaining a "chain of evidence" (Yin 1989). This first iteration of data analysis was performed separately for each of the five case studies.

The final step in the analytical process was a cross-case comparison of coded themes. Individual codes were combined across all five cases. Some codes were grouped or split at this point to better reflect emergent cross-case themes. Summaries were created for each code/theme to reflect unifying findings, stronger and weaker themes across all cases, as well as emergent similarities and differences between cases. Raw data (i.e. quotes) were pared down at this point, leaving only the most illustrative examples, in the interest of brevity for the final presentation of the results.

Figure 1: Summary of analytical process

Step 1: Coding of individual interviews
Step 2: Organization of raw data by code
Step 3: Synthesis of individual case
Step 4: Cross-case synthesis of findings

Background on Selected Organizational Models

Model 1: Extension-Based "Master" Volunteer Program

The United States is fortunate to have a strong volunteer resource base (Fletcher & Reed 1996). In the natural resource sector, a popular organizational model that has arisen in recent times is that of the "Master" volunteer program, based on the highly successful Master Gardener Program that was first established in 1973 by Washington State University Extension (Van Den Berg et al. 2009; Gibby et al. 2008). The concept behind Master volunteer programs is to provide intensive training to community members with previous experience in their field, who in turn repay the service by providing informed, voluntary assistance to other community members. The model has become popular in the forestry sector, begetting programs such as Master Forest Steward, Master Forest Owner, Master Tree Farmer, and Master Woodland Manager.

Though the end purpose of the master volunteer program chosen for this study, the Master Woodland Manager (MWM) Program, was to inspire more bottom-up learning in the broader community, the training style of the program itself represented a more traditional top-down learning structure, as the program was Extension inspired and implemented. However, the program did contain opportunities for bottom-up learning, as current and former participants were at times asked to lead classes or discussions.

Model 2: Woodland Owner Cooperative

Woodland owner cooperatives, while once a fading establishment in the U.S., have enjoyed a renaissance in recent times (Rickenbach 2003). According to Zeuli (2003), a cooperative as defined by the International Co-operative Alliance (ICA) is "an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled enterprise" (p. 14). Woodland owner cooperatives specifically, according to Blinn, Jakes, and Sakai (2007), are seen to have both social and environmental benefits, as they unite local landowner communities and are effective at "empowering landowners to achieve their ownership objectives, resulting in higher landowner participation in forest management (p. 247)."

According to Zeuli (2003), cooperatives are generally considered "bottom-up" rather than "top-down" in power structure. The cooperative chosen for this study, the KWC, was a grassroots organization run by local staff and a volunteer Board of members, and thus fits well with this bottom-up categorization, though the learning structure of the workshops could still be considered top-down. For the purposes of this study, however, as a private member-owned business, the KWC is classified as representing the more bottom-up end of the power structure.

Model 3: Landcare

Landcare first emerged in the agricultural sector in Victoria, Australia in the mid-1980's as a response to increasing environmental pressures in the region, such as erosion and salinization, which had arisen in part due to poor land management practices.

Additional social pressures, such as the decline of the agricultural community in Australia, spurred the movement forward as well (Wilson 2004). A combination of grassroots effort and government support allowed the movement to spread quickly across the state, and soon the nation. In 1989, a nation-wide government program called the National Landcare Programme was established, succeeded by an announcement by prime minister Robert Hawke that the 1990's would be the "Decade of Landcare" in Australia, replete with federal funds to fuel the movement and encourage the creation of new community Landcare groups across the country. The effort was enormously successful, and today over 4,000 Landcare groups exist in Australia. The "Helping Hands" symbol of Landcare (Figure 2), which was promoted to the point of appearing on national currency, is recognized by 8 out of every 10 Australians (Landcare Australia 2010). The movement has since spread to nations across the globe, including a burgeoning initiative in the United States. (Wilson 2004)

Debate exists in the literature over whether Landcare is, at its heart, a bottom-up or top-down movement, a tension that Wilson (2004) refers to as the "'hybridity' of Landcare." What is clear, however, is that both grassroots and government effort were necessary to bring the movement to its level of success today, and both remain important to sustaining it. Because of this, Landcare offers an ideal model for this study, as it falls closer to the middle of the top-down/bottom-up power spectrum, incorporating elements of both.

Additionally, Landcare holds great potential as a model for peer exchange within the greater landowner community, as described by Cary and Webb (2000):

> *... social capital enhanced through community landcare does not stop at the boundaries of formalized community landcare groups, indeed one of the benefits of community landcare is the manner in which it extends and facilitates the broader dissemination of information through broader community networks. (p. 20)*

Thus, much like the perceived power of the MWM program in Oregon, Landcare has the potential to utilize diverse existing local social networks as a medium for the diffusion of ideas and information. This study examined cases of Landcare in

both the United States, where is has only recently emerged, as well as in its historical context in Australia, where it has been successfully established as a part of the national culture.

Figure 2: The classic version of the Landcare Australia "Helping Hands" logo

Image source: ginninderralandcare.org.au

Results

Introduction to Study Sites

Case 1 – Oregon State University's Master Woodland Manager Program (MWM); Corvallis, OR

.. the original vision was that Extension Foresters are insufficient in number and capacity to reach all the potential landowners and additionally, as our nature, sometimes we're viewed as outsiders looking in, and that training Master Woodland Managers ... we already have a group of very passionate, engaged woodland owners. And through Master Woodland Manager you empower them, to be able to speak with more confidence to their neighbors, and to tap them into resources, and also connect them with each other. And so ... the three objectives of the Master Woodland Manager program are to increase their technical knowledge and skills, and provide them with opportunities to access additional resources, and to work with others. [*1-9]

According to Fletcher and Reed (1996), the Master Woodland Manager program began in 1983 as a pilot program ran by Oregon State University Extension and Oregon State Department of Forestry. Inspired by the successful Oregon Master Gardener Program, the goal was to train experienced landowners as volunteers, who would then reach out to other landowners in a "neighbor-to-neighbor"[1] approach, with the goal being to access factions of the community for whom there had been little success reaching while using traditional forestry assistance methods.   Based on post-training surveys of participants and landowners contacted by these participants, the pilot was considered a great success. A larger statewide program was launched a few years later, and the first class graduated in 1989, with two to three classes graduating every year since, at the time of study.   The MWM Program has also spread to other states such as Iowa and Michigan. This study examined the seminal program in Oregon.

The Oregon MWM program was run through OSU Extension, and individual programs were lead by area Extension agents in counties all over the state, every 5-10 years on a

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* Indicates participants who were interviewed as leaders.

[1] Use of "quotations" indicates participate language; use of 'inverted commas' indicates the author's language, unless otherwise indicated.

rotating basis. The format of the program consisted of 85 hours of course work that were divided up into 1.5 day segments over the course of six to eight months. Courses consisted of a variety of learning formats, including classroom-style lecture as well as field trips and practical skills testing. Course work focused on teaching a variety of management skills, as well as providing leadership training for fulfilling the Master Woodland Managers' (MWMs) volunteer hours. Though originally focused mainly on management for economic goals, the program had shifted in more recent times to a greater focus on wildlife and restoration, which more accurately reflects stated landowner goals in the literature (Rickenbach 2003; Butler & Leatherberry 2004). In addition to attending classes, participants were expected to have a written management plan by the end of the course. Prior to the course, participants were also expected to have previous knowledge about woodland management. If applicants to the program were deficient in certain areas, they were sometimes encouraged to take one or more beginning level short course programs before taking the MWM Program. There was no monetary cost to enroll in the program, but participants were expected to volunteer an in-kind number of hours in outreach to other landowners. Opportunities for updating and refreshing course knowledge existed in the form of a "Mini College" offered every couple of years.

Case 2 – Kickapoo Woods Cooperative (KWC); LaFarge, WI

Well this is where the rubber meets the road right here. Yeah, this is where the forestry gets done, or not done... [*2-4]

The Kickapoo Woods Cooperative began in 1999 (Rickenbach 2009), incorporated under the Wisconsin Cooperatives Statute, and hired their current Coordinator in 2001 with grant money administered through the University of Wisconsin. At the time of study, the KWC had two hired staff members, seven volunteer Board members, and 265 woodland owning members; membership had expanded each year since inception. The Cooperative was regional in nature, catering mainly to the Kickapoo Valley in the unglaciated "Driftless Region" of Wisconsin. The KWC performed three main roles: providing education for the local landowner community, assisting members

with timber marketing and sales, and providing forestry services for members. Educational opportunities were usually free and open to the community, not just members. The KWC organizes and runs approximately 10 to 12 workshops per year, covering topics such as chainsaw safety training, tree disease, non-timber forest products, forest taxation, and other management-related issues.

The KWC's other services, such as property surveys and timber stand improvement, were offered only to members, for an hourly fee, by the Coordinator or other contracted forestry professionals. Access to these services was a major draw for potential members, as many were seeking assistance with fulfilling their requirements for Wisconsin's Managed Forest Law Program (MFL), a tax incentive program for woodland owners that required a 25 year commitment to a management plan, and usually several mandatory harvests. Membership in the KWC cost $100 for a lifetime enrollment, contingent on creation of a management plan, and entitled the member to a free "woods walk" from the Coordinator to identify management needs and goals.

Case 3 – Grayson Landcare (GLC); Independence, VA

A couple of things you have to do to get things started, there has to be shared vision, a shared reason, why people should get together and what they should do. And Landcare provides one of these, the triple bottom line, we want to improve things economically, better community services that support what people need to do, and it has to be environmentally stable; who can be against that? [*3-1]

Grayson Landcare, located in Grayson County, Virginia, USA, formed from a combination of community, university, and non-profit efforts with the goal of adding value to the local productive landscape in order to prevent losing the land to residential development. According to Robertson et al. (2007), at a meeting arranged by the community organizer, Dr. Jim Johnson of Virginia Tech informed Grayson County landowners about the Australian movement that resembled the Grayson community's own goals. After this, the community soon adopted the "community landcare" model themselves, and in 2005 formed Grayson Landcare, which is generally recognized as the

flagship Landcare organization in the U.S. (Robertson et al. 2007). The group has since implemented several programs in the community, the most successful of which has been Grayson Natural Foods, a grass-fed beef project aimed at retaining agricultural lands in the community. Grayson Landcare was also a highly networked group, and had affiliation or member crossover with entities such as the Blue Ridge Forestry Coop, the Elk Creek Watershed group, Virginia Tech, and even a sister Landcare program in Tasmania.

Grayson Landcare had an informal membership structure – there was no official enrollment. Thus, membership numbers were difficult to gage. Though the most consistently involved core "members" most likely number less than 15, there were approximately 100 local people on the listserv, and many other non-locals as well. The group was regional, drawing members from Grayson and some surrounding counties, though the network reached much further. Membership consisted of a mix of landowners – forest and agricultural – and other interested community members, though for this study landowner members were targeted for interviews. Interviews were supplemented with attendance of an organizational meeting, and informal interaction with group members and leaders.

Case 4 – Dalrymple Landcare Committee (DLC); Charters Towers, QLD

I know the person who coined the phrase in Australia and started it … [his] concept was that Landcare was simply to be a movement of landholders … with the aim of fostering sustainable- economically and ecologically sustainable use of our land. Was as simple as that. … It's for landholders, by landholders, and it's about making enough profit to stay there, and to be able to stay there <u>forever</u>. [*4-2] [emphasis original[2]]

The Dalrymple Landcare Committee (DLC) was a regional Landcare group focused on what are known as the Burdekin Rangelands, located in the Burdekin River Catchment area of the dry tropical region of Northeast Queensland, Australia. Inspired

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[2] All emphasis in participant quotes is used to denote original verbal emphasis by participant, unless otherwise indicated.

by the Landcare models established in Victoria, producers involved in the local Cattleman's Union established the group in June of 1988 in response to concerns over severe land degradation that had resulted from the combination of recent droughts and overgrazing. The DLC was the first pastoral Landcare group in Australia, and remains one of the longest standing community Landcare groups today; it can be considered a highly successful example of a productive landscape oriented Australian Landcare group.

The focal region for the DLC was approximately 70,000 km^2, which is roughly the size of the state of West Virginia. There were 320 properties within this area, approximately two-thirds of which were involved in some way in the DLC, though no formal membership structure was in place. Membership consisted nearly entirely of cattle producers. The group employed one staff member, the Project Coordinator, who was funded with grant money through the federal program, Caring for Our Country. In addition to hiring staff, government funding was sometimes available for producers to perform on-ground works. Since its inception, the DLC had distributed approximately three million AUD in federal funds to landowners for about 57 different management projects.

The DLC provided the most opportunity for attendance and observation of group functions, including one regional group meeting/property tour, two local sub-group meetings, and one educational workshop.

Case 5 – Trees for the Evelyn and Atherton Tablelands (TREAT); Yungaburra, QLD

…Being a place for people to be to passionate … TREAT itself probably doesn't do anything, but members of TREAT are passionate, and they inspire others somehow. [*5-12]

Trees for the Evelyn and Atherton Tablelands (TREAT) was a community landcare group focused on restoring rainforest vegetation to the elevated region of Northeast Queensland, Australia's wet tropics known as the Tablelands. TREAT was

formed in 1982 by a committee of five scientists and community members who wished to restore the landscape after massive forest clearing operations in the previous decades had devastated local rainforest ecosystems. The group started with about 10 members growing seedlings in their backyards and doing small plantings; at the time of study, the organization had approximately 450 household members, a Nursery space that they share with the Queensland Parks and Wildlife Service (QPWS), and the volunteer capacity to plant thousands of trees in a single morning.

TREAT was not a "Landcare" group by name, but they were incorporated under the national Landcare umbrella program for insurance purposes, and recognized themselves as a part of the overall "landcare" movement. Unlike GLC and DLC, TREAT did have a formal membership, which cost 15 AUD per year, and entitled members to 10 free trees a year, as well as the potential to apply for up to 300 trees for a small planting. Membership consisted of a mix of landowners and other interested community members, though for this study landowner members were targeted. TREAT offered a very different Landcare model than DLC, as its focus was on restoration of landscapes in a smaller, more populated area of Australia, rather than on productive landscapes in a far more sprawling, sparsely populated part of Australia. TREAT did most of its volunteer tree planting on private lands that were a part of large-scale biological corridor projects. Additionally, TREAT provided volunteer labor for members looking to do large plantings on their property, as well as occasional labor for public land plantings as a part of their unique relationship with the Queensland Parks and Wildlife Service, which is discussed further in Section III.

In addition to interviews, the residency period allowed for attendance of both a group meeting ("Work Bee") and a member-led field day.

Overview of Results

The results from this study fell into three overarching categories that reflected the goals of the research questions: results that pertained to the **atmosphere** created by the groups, those that pertained to **information flow**, and those that examined the nature of **peer exchange** within the groups. These categories are addressed in Sections I, II, and III, respectively. Section I examines the form of the groups, and how key characteristics shared by the different models created an atmosphere that incentivized participation and facilitated learning. This section also explores the role that the peer-based environment of the groups played in creating this atmosphere. Within this form or structure, Section II examines the function of the groups – how information flowed within and beyond them. Additionally, the results provide insight into the type of information provided by the groups and the ways that this information influenced landowners. Finally, Section III explores in greater depth the overlying theme of peer exchange, examining the role that peer knowledge played in the groups, how this knowledge was perceived by participants, and how peer exchange of this knowledge was fostered and was manifested within the groups.

Section I: Atmosphere

They've set up, and ... generated an environment which will allow you to learn ... and that to me is very, very important. [5-10]

The focus of this section is to demonstrate how the atmosphere created or provided by the groups acted both as an incentive for involvement with the organization and, as the above quote illustrates, a catalyst for interaction and learning. Emergent themes within this category revealed groups acting as a voice for the members and/or broader landowner community, as well as built reputations of trust in the groups to provide quality, reliable information. Additionally, the groups provided a 'safe space' of like-minded individuals in a non-hierarchical setting where members could comfortably learn and share knowledge and experiences. Groups also provided emotional incentives, in the form of personal satisfaction and feelings of ownership. Additionally, the social environment fostered by the organizations, as well as their enduring presence, provided incentive for involvement and facilitated information flow among peers and between peers and professionals, helping to build a sense of 'community' among members as well as the broader local community. Finally, the strong leadership of the groups provided an important contribution to fostering all of these aspects of the group atmosphere. Overall, the atmosphere offered by these groups provided an environment conducive to landowner learning.

1.1– Voice for Landowners

*The mission of the organization is to ... be a voice for landholders. [*4-3]*

They're like ... a go-between between the government and us I suppose, you know, and the environmentalists and us. [4-8]

For MWM, GLC, DLC, and to some minor extent TREAT, the groups exhibited evidence of acting as a voice for the collective landowning community to the

governmental and public spheres. They provided a united front for the landowning community and a repository for individual voices. KWC, on the other hand, was unique in that, while it was indeed working to build visibility and markets for small woodland owners, it liaised between government or industry and individual members, providing a voice for the *individual* landowner's rights and needs.

For MWM, GLC, and DLC, largely, the groups provided voice for the local landowning community via member and leader involvement in local politics, whether it was through their occupation, involvement on local Boards or committees, or lobbying. Leaders of the groups were sometimes seen as "liaisons" between the landowning community and political bodies. The importance of this political representation was expressed by one GLC participant:

> *I really feel that to have an organization where people's voices can be heard, and we have some strength to make some changes and to affect some laws or rules or zoning that's coming … to have a local organization that can have some sway because they've got the research, got the facts, they've got the figures, I think it's critical. [3-11]*

Another means by which the groups influenced policy and provided voice was by influencing the voting public through education and outreach. In MWM, and especially in DLC, groups strove to bring greater awareness to the public about landowner issues, realities, and efforts:

> *So, to manage your land in such a way that it is truly sustainable … you're going to be less profitable in the short term … I think people- city-dwellers need to know that. Know what.. what lengths people in the bush actually go to, to manage their land sustainably … We now have … such mass urbanization, that we have people in the cities who have absolutely no practical understanding, or any conception whatsoever, of what land management and food production is all about. And if we don't fill that void, then you know, they're going to listen to whoever is in the void. [*4-2]*

In TREAT, public outreach emphasis was focused on ecological awareness – on the trees themselves, rather than the owners of them.

Whereas most of the cases represented landowners at the community scale, the KWC demonstrated a more personalized representation that was less visible in the rest of the

cases. KWC's ability to do this, however, in part stemmed from it being a large multi-representational entity, and thus bearing more influence in dealing with the industry or agency than an individual landowner. For instance, the KWC provided voice to the individual landowner by representing them during harvests. A benefit of the KWC in these situations was its ability to maintain an ongoing relationship with logging companies and to combine small harvests among members to provide a more enticing harvest opportunity for companies than a smaller individual harvest might. Participants expressed comfort in having a trusted entity supporting them in these important decision-making situations. The issue of trust is explored further in section 1.2.

In addition to being an "agent" for landowners to the industry, KWC assisted individual landowners in seeing their specific needs honored when filling the requirements of the Managed Forest Law. The KWC had the ability to go "in between" the landowner and the DNR, as can be seen in the following excerpts from separate interviews with a member and a group leader:

> *[Name] said to me once 'you should take that tree.' I said "I can't … that's where I put my tree stand, you can't take that tree!" [2-1]*

> *You know if a landowner says to me, "Hey I don't want that tree cut," I won't cut it. You know, ok, I'll deal with the DNR on this one … That's really my job, see, is to be in between everybody [*2-4]*

1.2 – Trust

> *They're wise guys that are out there, the bush people, and like I said, you can't pull the wool over their eyes … once you muck around with them once and break their trust, they're not very trusting people, it's very hard to get that back. So, that's a big challenge, is to get the right people for the job I guess. [*4-3]*

When discussing personal views, or when describing perceived notions of the landowner community as a whole, participants indicated the "slowness" of landowners to trust. Subtle themes of mistrust toward government and other professional entities

existed throughout the cases. However, results indicated that peer groups may have the potential to break through these trust barriers.

Participants in both the United States and Australian cases spoke of the hesitancy of landowners in the region to trust the government. While not overwhelmingly expressed, in most of the cases there were at least a few participants that indicated either a personal or observed tension with local or State government. These feelings stemmed from a variety of causes related to negative past experiences with government actions, or frustration over regulations that participants perceived as "impractical." For example:

> *Lot of farmers weren't grazing cattle in the woods until the legislature nine years ago changed into 'use value,' and then their woods would be taxed higher, so they put cattle in the woods, so now its agricultural land, the worst possible outcome. The worst possible outcome. [*2-6]*

This observance resonated subtly across cases, from complaints of "somewhat Draconian zoning regulations " [1-1] in MWM, land use taxation rules and certain complaints with the MFL program (though there were positive feelings toward this program as well) in KWC, and restrictive regulations in DLC that stemmed from appeasing political agendas in the urban areas. In addition to a general resistance to being "told" or forced by the hand of government, there were complaints of an overemphasis on production, and a general feeling of government having a 'one size fits all mentality' and being out of touch with the reality of local needs.   Overall, these feelings were strongest from the production focused groups, DLC and KWC, but were also present in the other cases.

In conjunction with the inherent mistrust for government expressed by some participants was hesitancy towards professionals in general, such as agency staff and loggers.   Some participants either had a bad experience themselves with professionals, or had anecdotally heard of others who had:

> *… a lot of the harvesting practices you see here are just horrendous. And so, many of us have had the attitude 'I will <u>never</u> let anyone come in and cut a tree, I will let my trees <u>die</u> before I will let someone come in and cut a tree' because the forestry practices here are so destructive. [3-6]*

However, some of this mistrust stemmed from historical grievances, leftover from times when loggers more frequently took advantage of people, or when there were many "crooks," as one DLC participant stated, in the agricultural business. Thus, some felt that this mistrust may simply be explained by negative associations with the industry or the term 'professional':

> *Well I think it's because some people are afraid of the word 'professional,' I think it's kinda' got a stigma with it … I guess I maybe felt a little bit that way before I found out what they can actually do. [1-13]*

These results indicate that it is not simply the information itself, but the *source* of the information that may determine whether or not a landowner will make use of it. That these groups allowed for active landowner participation may have facilitated trust in the organizations. For example, participants from KWC noted that the Co-op provided "trusted forestry services," such as timber stand improvement and harvest assistance, and offered an "independent viewpoint." This was as opposed to the perceived vested interest of professional or government services, which did not always represent the landowner's interests, such as in the case of production versus creation of wildlife habitat. One group leader described well the appeal that the KWC has for many landowners:

> *So people are enrolling in this managed forest land program at astounding rates- astonishing rates, because of the property tax pressure … Now, they've signed a management plan , now they have a mandated harvest next year.. Now what? Who do I get to do that? Who do I trust to come into my beloved woods and harvest? … Do you trust the forester who's going to do it on a percentage basis? Are you going to trust … the saw mill who comes and wants to make a bid on your land ? Or are you going to trust a group of people that <u>you're</u> a member of, that's your board, your staff people in there, who are working for you? And that is driving a lot of people in our direction. [*2-5]*

Additionally, participants from multiple cases indicated that these groups had credible reputations. As one participant noted, "I felt like it was quality information that we received, you know from the best people in the field. [1-7]" Members could thus have access to the benefits of the "expertise" of the professionals, while still having the "friendliness" of a peer group. Groups further gained trust by being open and not

forceful with their agendas, and by consistently providing relevant information and events.

Groups also gained trust through the ways in which they shaped their images. Participants had a variety of ways of expressing their connection to their land. Some valued their land for its ability to provide an economic living, others expressed an ecological connection, describing interest in wildlife. Still others expressed a spiritual-emotional connection with their land, describing a "love" for their woods or a connection from childhood. Regardless of their particular perspectives, participants generally expressed the desire to be good stewards:

> *We want to say we're stewards of the land … we want to be helping environmentally, we just don't want to leave a bad foot print. [2-11]*

Groups were mindful of these diverse perceptions, and sought a balance between caring for the land and resonating with producers. Groups sought to avoid being labeled as "greenies" or "tree huggers," as these images sometimes damaged the credibility of the organization. Rather, they associated with the concept of sustainability, focusing on the long term health and productivity of the landscape.

> *Another key objective I guess you could say of the Committee is to … not necessarily take the hardcore environmental sway, but you have to balance that with a productivity benefit for the landholder … We fully recognize that you have to manage the environment in a sustainable manner, but at the same time, you can't tell a landholder that they can't produce any cattle on that land. They still have to be able to do that, as well as improve the environment, and it's totally achievable, it's just getting them to see both sides of the story. [*4-3]*

1.3 – Providing a 'Safe Space' for Landowners

> *You know, in a context that is not just a social context, it's a context that is tied up with looking after your countryside. So because of that, the focus on questioning people, and finding out what they're doing, and how effective things have been, and that sort of thing, is.. absolutely acceptable, you know? [4-5]*

Across all cases, groups demonstrated creation of contexts within which learning and other social capital-building could take place. The groups provided a comfortable atmosphere that contributed to both drawing members in, and adding to the value of their

experience once involved. There were several factors that contributed to creating this 'safe' space for participants, including access to like-minded individuals, a low-key, friendly, non-hierarchical environment, and a space for creation and discussion of ideas and goals.

In all five cases, participants spoke of the draw or benefit of having a place where they could meet and interact with "like-minded" people, often using that very terminology. Participants expressed a sense of friendly solidarity among members, allowing them to engage with individuals with similar interests and experiences. As one participant expressed it, "Here, we've got something in common" [5-3]. This idea was observed frequently in GLC and TREAT, and least frequently in KWC. In GLC, for example, many participants expressed the benefit of finding other "like-minded" individuals within the GLC with similar goals and interests. These were people with whom participants expressed wanting to interact and blending in with well. This "extra tightness" was observed as the defining feature that set a *Landcare* group apart from an ordinary community. This idea is referred to by Everett Rogers as homophily or "the degree to which two or more individuals who interact are similar in certain attributes" (Rogers 1995, p. 19). According to Rogers, homophily can help to facilitate learning. One participant in MWM expressed the general appeal of the homophilous nature of the group:

> *I was just interested in interacting with other small woodland owners I guess, and I, you know (pause) I don't know I guess I kind of liked the idea of helping out other people that have an interest in this. You know it's always fun to share your interests with other interested folk (laughs). [1-3]*

Having access to individuals with similar interests provided practical benefits as well, as it allowed members to participate in "swapping knowledge" with one another, and contributed to building a support system. As seen in DLC, members were all graziers, and thus they were all "in the same boat together," as one participant noted. Members shared common problems, in addition to common interests, and connection with the group helped to facilitate problem-solving. In addition, like-minded landowners were

generally *doing* similar things, as noted in TREAT for example, where many of the participants were involved in revegetation projects. This allowed the opportunity for property sharing and new ideas, especially for newer landowners.

In addition to facilitating a homophilous environment, the groups provided a welcoming space that was egalitarian, non-hierarchical, and informal in nature. Seen for the most part in the three Landcare cases, participants expressed feelings of comfort associated with the 'vibe' that the organizations provided. In GLC, there was special emphasis on the open, welcoming nature of the group. Additionally, all voices were treated equally, and the group was non-hierarchical in the structure of the relationships between leaders and members:

> *I mean if there's room for a country boy like me ... you know there's certainly room for everybody. And everybody's opinion counts. Nobody's opinion is weighted more than the other. ... Whether you're in bib-overalls and your cowboy hat, or you know whether you're an attorney or whether you're a doctor, or whatever, you bring everybody's ideas together and they all mean the same. And, you know, you respect each other's views ... and that's a whole goal behind Landcare I think, is to do that. ... Doesn't matter what you look like, or what you wear, or what your status is, everybody fits in Landcare. [*3-9]*

In DLC, the familiarity of having a group of neighbors and the informal setting and structure of the gatherings and the relationships created a relaxed space that facilitated information flow, a theme observed in TREAT as well. As one participant noted "I think rural people get scared off a fair bit by [a] 'proper meeting' meeting" [4-10]. Overall, in the Landcare cases a relaxed, open, approachable atmosphere of friendly people contributed to the benefits observed by the participants, and to making them a "safe forum" in which to discuss.

> *You have a meeting, and afterwards maybe a barbeque or a couple beers, and just sit down and talk, and ... surprisingly enough, you'll find you get a lot of good ideas when ... you know the formalities are done, let's just sit back and talk about it. And you'd be surprised at how much people open up. [4-9]*

Finally, in addition to providing a comfortable space for landowner learning, interaction with other members in the group setting provided inspiration for participants. A GLC participant eloquently described this benefit of involvement by stating that, "more than an

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informational forum, it's a forum to get people to dream" [3-2]. The atmosphere of GLC meetings was described as one of energy, inspiration, and great potential. Participants expressed feelings of self-empowerment as a result of being a part of the group. While there was expression of some amount of concrete exchange of new ideas, largely the value lied in the more abstract idea of the human "tangible energy" present, produced and exchanged within the context of the group. This idea was expressed in most of the other cases as well; TREAT was described as "a place for people to be passionate" [*5-12], and the motivation for MWMs came not from the "regulation" but the "inspiration," according to one MWM leader. Another benefit of the groups, as expressed by participants, was that it allowed them to "gel out" their ideas, to expand upon existing goals, and in some cases, to find the motivation to implement them:

> *... to have that space to be able to sit down and ask "What are your goals?" ... to know that your goals are ok. You know, unless you want to burn down the forest (laughs) or something. And to figure out what the best ways are to achieve those goals ...[1-7]*

> *It gets you fired up, to go out and work on your own place ... And you say 'Hey! That looks like it'll really work,' and you go home and try it. And, it gets you fired up to go work on that instead of sitting down in front of the T.V. [1-1]*

1.4 – Emotional Incentive: Role of Giving, Reciprocity, and Ownership

> *...We thought, "... let's give something back to the land. We've been taking it all our lives ... so let's give something back." [5-10]*

For most of the cases, but especially MWM, GLC, and TREAT, which all had strong volunteering components, participants expressed a desire to "give back" through their involvement with the organization, or the benefit of being able to so. In MWM, members often fill their required volunteer hours well beyond the mandatory amount. The successes of GLC and TREAT were largely dependent upon the effort of their volunteers. Participants stated that it felt good to help others, to know that they had given them something, whether it was knowledge, time, or service, and that it was "natural" to want to share what they had learned.

> *When I go out, in almost all cases, and talk to somebody, I feel universally I have given them some useful information. And I come home feeling like I've <u>helped</u> somebody … that always makes people feel good. [1-1]*

Involvement with the group was their "community work," their way of giving back to their country, or their way of giving back to the land itself.   Some participants expressed this as a primary reason for involvement in the group. They did not feel that they personally brought much away from the group that suited their specific situation, or they were not seeking to gain from the group in general; rather, they saw involvement as about what *they* could do for the group, not vice versa. For example, TREAT participants were questioned on their feelings about their personal contribution to rainforest conservation. Many participants responded that they felt that they were making a contribution. While for some this feeling was largely unrelated to their involvement with TREAT, for others TREAT clearly contributed to this feeling for them. Using skills they had acquired with TREAT's help, they were able to implement management projects and observe the progress of their work, such as tree growth, and the return of local fauna. Thus, TREAT provided emotional satisfaction by helping individuals to be part of something bigger than themselves.

> *… we really do believe that we've made … a contribution.   We've given something back to the land.   You want to take it to a bigger picture, the planet we live on. [5-10]*

That being said, involvement was a "two-way street"; as some participants pointed out, volunteering or sharing often led to getting something back in the way of knowledge and/or experience.

Another way of expressing the idea of 'giving' that was observed in MWM and KWC was that in addition to providing opportunities to volunteer and help others, the groups provided members a forum through which they could share their strengths, knowledge, and accomplishments with interested people. This idea was eloquently discussed by one participant from KWC who quoted author Erich Fromm[3] by saying that, through sharing knowledge via the KWC, you were "experiencing your abundance" [2-2]. Whether a

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[3] From *The Art of Loving*, by Erich Fromm

person was very knowledgeable or less so, it felt personally satisfying to be able to share that knowledge and experience with others.

> *I think sometimes Master Woodland Manager just gives them the ability to think about where their strengths are, and what they want to do as volunteers. A lot of people when you first retire they don't know … what their impact's gonna' be. [*1-9]*

A final means of expressing this idea of giving was in a more obligatory or reciprocal sense, an idea seen in KWC, MWM, and TREAT. Participants sometimes had to 'take' (learn) before they could 'give' (share knowledge or experience), but there was a sense among many of them that this latter aspect was an important personal obligation. Participants *wanted* to be able to give back to the organization in some way, so that they could feel a sense of earned ownership, rather than being merely "user[s]," and expressed feelings of regret or guilt if they were unable to be actively involved. Participants noted that feeling a sense of ownership also encouraged greater involvement with the group, and greater interest in communication that came from the group. Additionally, as one participant expressed in MWM, having a volunteer component added value to the knowledge that they received, knowing that they had to do something in return. As mentioned, participants in TREAT saw involvement with TREAT as two-way: they wanted information, but knew that they were doing their part to earn it by volunteering, or vice versa, they wanted to share their knowledge and time, and subsequently received benefits because of this.

> *They've given you the opportunity to go and plant trees. Admittedly … it's a two-way street there, you're helping them plant the trees, but you're also learning. [5-10]*

1.5 – Social Incentive

> *AK: I'm getting that feel, that it's a social organization as well as a volunteer.. Interviewee: … Well from my observations, a lot of people go there probably for that reason![5-10]*

For many participants, a key benefit of their organization was the social aspect – meeting new people with similar interests, forming lasting friendships that extended beyond the walls of the organization itself, and having a chance to socialize with friends

and neighbors during organizational events and meetings. For some participants, especially ones that had recently moved to the area before joining the group, the organization played an important role in building their network of friends. Members that participants kept in touch with or would contact outside of group events oftentimes were people they considered friends, and sometimes the reason for contact was mainly for this purpose, as opposed to strictly management discussion.

> *Oh you know, you get to be a part of a group of friends … you become friends. You know you see these people all the time and you interact socially. And it's just really increased our life- our happiness up here 100%, it's really nice. [1-8]*

> *Out here, meeting people is not the easiest thing in the world. And so, you know, we're meeting people through the co-op that have the similar interests to what we do. [2-7]*

Additionally, the social incentive provided by the organizations provided motivation for landowners to get involved with the group in the first place, or with the activities associated with the group after joining. This latter observation was especially prevalent in the two Australian Landcare cases, DLC and TREAT. Perhaps it had something to do with Australian culture, or the nature of Landcare, or the nature of the communities – but whatever the reason, the social components of DLC and TREAT were critical aspects of their structure and were of value to their members. For DLC especially, Landcare meetings and workshops provided a welcome break; this was a group of hardworking, busy, dispersed graziers with few opportunities to get together with their neighbors. Landcare gatherings provided an opportunity to do so. Such social interactions at times led to information exchange.

> *… it's a good social outing, it gives everybody an opportunity to catch up. Because we don't, everybody's always so busy. But during that catch-up time, people are always chatting about, you know, what they're doing on their places... [4-9]*

Another frequent component of the social draw of these organizations was the provision of food – and the time and space to consume it with peers. The importance of this mechanism was a subtle theme across all cases, but was especially strong in the Australian cases, where "smoko" – or morning tea – was an integral part of the day, and barbeques were culturally popular. A particularly illustrative example of this idea can be

seen in the "morning tea" associated with all of TREAT's Friday morning Work Bees. This simple social and cultural act was clearly an integral part of the success of TREAT as an organization, for several reasons. First, the break in the morning's work provided space for socializing, which sometimes led to information exchange. Additionally, the time was sometimes used for announcements, or information sharing from either the staff or a member of the group. Finally, people enjoyed it. This cannot be discounted; the social incentives or "camaraderie" within TREAT, such as morning tea and the barbeques offered after plantings, offered an incentive for people to come and participate. As participants noted, "it's a social gathering as much as a Work Bee," [5-3], and "It's a social thing, isn't it really? With.. with an underlying theme" [5-11].

> *And things like that just crop up in conversation, especially during morning tea. ... Morning tea's quite an important part of TREAT, because you do learn a lot through just informal conversations with people, things crop up that you hadn't thought about. You know, so you're able to sort of glean bits of information all the time just from chatting with other members. [5-2]*

Similar themes were seen in DLC, where intra-meeting or post-meeting/workshop tea breaks and barbeques provided important spaces for relaxed discussion, learning and information exchange.

> *So at these field days for example, you have I guess almost a formal presentation at a site. ... At the end of the day, back at the house, we would have the people that had presented, and people could ask them questions in an open forum, and we would always finish with a social occasion, like a barbeque and a few beers. And of course, that's when a lot of discussion occurs. So, there's opportunity at most of these things for ... formal questioning and answers, and the informal stuff at the end of the day over a beer and a burger. [*4-1]*

A final interesting anecdote told by TREAT's President demonstrates how in spite of – or perhaps *because* of – all the socializing, productivity still occurred:

> *There was a lass, and she went to the Tablelands Nursery ... worked there on a Thursday. And they broke for lunch, but apart from that, she worked from the time she got there at 9 'til the time she left at 4, because it was all day. And she came to TREAT the next day, and she said "All we seem to do here is talk and have morning tea. But, the work still gets done somehow." ... And for instance last Friday, again a retired person, an entomologist who has a lot to give ... she said she had so much to do at home, she thought, "Damn it. I'll leave it all and go to TREAT." And you'll find that that's often an attitude too. Because it does work socially, but people also, while they're talking, do the work. And that's the reason I think TREAT's so successful. [*5-12]*

1.6 – Building Community

And so it's this sense of community, sense that things can be better. [*3-1]

The idea of community was extensive throughout the cases, especially the Landcare cases (most notably GLC and DLC). The community formed through the MWM Program was also seen as important to many participants, though as the program had a definite end point the observed strength of the *ongoing* community varied among participants; while some saw it as strong, and as a valuable resource to tap into, others were less involved with other members after the program ended. Overall though, the community formed by the MWM Program was seen by participants as a defining benefit of the Program. As described below, elements of a team atmosphere and the ability to integrate well with the local community played into the success of the groups' community building efforts. KWC did not demonstrate as strong of a community aspect as the others, though there was an element of increased comfort with the KWC community expressed by participants.

As independent as many landowners are often depicted, participants expressed in a variety of ways their gratefulness of having a community to affiliate with, or a 'team' of which to be a part. Grayson Landcare had this approach to the way it functioned – there was mention of being "team players" and reference to the "group decision," rather than the disparate decisions of individual members; the focus was not on credit, but on uniting diverse interests to find group compromise and getting the best information. The TREAT community provided something for people – especially newcomers – of which to be a part, a "connection to the local community." Participants expressed the idea of not having to be the "lone sheep" or the "old lone soldier" when it came to their efforts or actions.

> *I think adults learn best in.. probably that peer learning, activity learning situation. And, you know, they feel more comfortable if their mates are learning at the same time. You know, they're not the shag on the rock; they're not out there on their own. [*4-2]*

And you'll find, Southerners are coming up because they're interested in revegetation. But then joining TREAT gives them something to hang on to. To do the revegetation. Rather than having to do it all on their own. They might still have to do a lot of work on their own, but at least they've got people they can talk to and network with. [*5-12]

Groups also provided an *on-going* community or resource to tap into, as opposed to interactions with some professional resources, which may be more intermittent. Involvement in the group helped participants get to know their neighbors, and increased accountability for management, especially if the community was involved with the management. In terms of knowledge, involvement with the group allowed members to learn together – not only providing a support group in the learning process so they were not trying to learn on their own, but ensuring that neighbors, friends, and community members were all on the "same wavelength." The community could also pool their resources and work cooperatively, as with GLC's Grayson Natural Food cattle sales.

Group involvement was also seen to increase rapport among neighbors. Whereas the previous idea of 'team' versus 'individual' was observed more frequently in the Landcare cases, an idea observed more often in MWM and KWC was that participants expressed the perceived benefit of having access to a group of people that they were comfortable calling and with whom they could have a more personal relationship than they experienced with government agents. One of the benefits of the groups was that they provided the opportunity for members to become comfortable with their fellow members, to the point where they felt comfortable contacting them as information sources.

I1: It's less formal situations and it's probably more comfortable for me to feel I can call somebody on the phone and talk with them at 7 o'clock in the evening, where as I am not going to do that with my DNR forester .
I2: Right, you have got to leave a message and he might call back in a couple of days or so. [2-11]

Having access to the communities fostered by the groups provided a variety of social benefits described above, and learning/networking benefits that are described in Section II. However, a simple yet repeatedly expressed more tangible benefit of the community was the access to 'hands,' or a human workforce. The provision of a peer workforce allowed for what can be called peer-to-peer action – the pooling of labor amongst peers

to accomplish on-the-ground projects – often on actual members' properties. From the KWC's Work Parties to the DLC's Barter Days, to TREAT's mass plantings on member properties, access to free labor provided an incentive for some participants to be more involved in the group, or in management in general. Members exchanged time on each other's properties, helping to clear invasive weeds, plant trees, or accomplish other management tasks. In addition to providing a valuable service for landowners, these labor parties provided some of the social opportunities described above. This method of pooling peer labor was not practical for all participants, and depended on the individual situation; but for those who participated, it was a real benefit of involvement.

Additionally, GLC acted as a nexus for pooling various skills of the members so that projects could be implemented. Also, in several of the cases the community was able to share material resources, such as equipment or tree seedlings from private nurseries.

> *Barter Days … everyone would go to one property and do weeds on one bloke's place, then the following weekend everyone would go to the next bloke's place. So you- instead of trying to poke along by yourself, you'd have a dozen fella's there for two days, and you got a fair bit done. [4-8]*

> *This last planting we had 38 people turn up … and a thousand trees bowled over in two hours. Hello! Not just bowled over, but planted and mulched! In two hours. … And you can't- You can't beat that. [5-3]*

Additionally, all five of the cases contributed to strengthening the *broader* landowner community via interaction with or member crossover between other landowner organizations. This interplay is discussed further in Section II, but it should be noted that this idea was especially important for the MWM Program, as once the program ended, the other landowner organizations offered a venue for participants to remain engaged in the landowning community. Thus, the MWM Program fed into other groups – and vice versa – helping to strengthen the overall local landowning community.

> *Well, it seems like I have occasion to get together with some of these folks, you know probably on a monthly or every other month basis anyways, through various, you know, small woodland owner meetings. [1-3]*

Pertaining to the Landcare cases, the connection to the broader international Landcare community provided a benefit in and of itself. This connection was not dependent on bearing the name "Landcare," necessarily. TREAT, while technically operating as a "Landcare" group for insurance purposes, did not affiliate itself with the 'big L' name Landcare, but did consider itself a part of the 'small l' community landcare movement. Participants in GLC also did not seem overly concerned with the name Landcare, and saw the idea of Landcare as more of a "movement", rather than an organization. However, participants also recognized the benefits of the name, saying that it resonated with landowners and provided an international model with which to affiliate. In Australia, the name is widely recognized; in DLC it was observed that sometimes new landowners to the area will have been in a Care group in the past, and will seek the local chapter. As one DLC leader noted, "Landcare's now 22 years old, it's a brand … and the people associate with it very well in Australia particularly" [*4-3]. This participant also noted that uniting under the common brand name of Landcare may provide a potential avenue for US groups to gain greater recognition by funders.

In GLC, more than the name "Landcare," the *idea* of Landcare acted as an incentive for people, drawing together those with a shared vision into one community so that rather than a single unit, they could be part of a whole working toward sustainability:

> *It's like in Australia, when people just drove down the road and saw that the irrigation was killing the land, they thought "We got a pretty bad problem," when watering kills land! ... And people were asking questions, "How come that's happening?" And that's what Landcare does is people say, "We've got a problem that needs solving! And if we work together as a community, we'll get it solved!" [3-3]*

In addition to building community, the Landcare groups, as well as the KWC were also largely formed and run by the community, making them 'grassroots' in nature. While government agencies or academic entities were involved to some extent with the formation and maintenance of each of these groups (though less so with the KWC), the impetus for creation and, at least in part, management (via the Boards) was largely grassroots. The DLC, for instance, was kicked off by local landowners coming to the

Department of Primary Industries with their goals. As a group leader stated, "it was born from people wanting to change the land" [*4-3]. These grassroots beginnings and ongoing grassroots nature seemed to be important aspects of binding the group communities together. The fact that the organizations themselves were community-run, that participants were allowed to make them their own and run them from the bottom-up rather than having them run from the top-down, was a potential factor in forming the inspirational, comfortable atmosphere of the group.

> *The mission of Grayson Landcare is what Grayson Landcare decides the mission is going to be. [*3-1]*

Several potential barriers arose as well that may have been prohibitive to the formation of community. One potential barrier observed in KWC was the difficulty of absentee landowners getting involved in the local landowner community because of their living situation. Additionally, the availability of regular meetings or gatherings emerged as important to maintaining community. Being unable to attend these meetings was problematic for some in terms of becoming involved with the community. This was observed in TREAT, where the main forum for this involvement was the Friday morning Work Bees, which not all participants had time to attend. It is also important to note that KWC, which lacked a consistent meeting for members, did not demonstrate strong themes of community. Similarly, as mentioned, the expressed strength of the MWM communities varied among participants after the regular meetings for classes ended.

1.7 – Strong Leadership

> *ES: Would you tell us exactly, what is your role with the program?*
> *Interviewee: Mmhm. I'm the cat herder. [*1-9]*

An underlying theme throughout the study was the role of each group's leadership in facilitating not only the attributes of the atmosphere described above, such as establishing credibility for the group and building internal community, but also in fostering information flow and peer exchange, which are discussed in Sections II and III, respectively. Group leaders were integral to the activity and longevity of the

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organization, providing a variety of operational services and catalyzing action among members. Leaders acted as central hubs of information access for participants, who often noted that they went directly to leaders with specific questions, who in turn could direct members back out to others if they could not answer their questions themselves. Thus, leaders helped to facilitate connections between members and professionals, members and other members, and even members and outsiders who were seeking information. Additionally, leaders helped to facilitate discussion within the group setting by starting conversations, encouraging others to speak up, and asking members to teach, present, or lead property tours.

> *If there's a discussion going on, and I know someone sitting at the meeting, and they've had some first-hand experience with that, they're probably a little bit reluctant to blow their trumpet and say "Aw I've fixed that up, or I've done that." So what I'll do – and sometimes other people will do the same thing – they'll say, "Aw, Jack you had that problem, and you've seemed to have fixed it up quite well. What did you do?" So that then gives them the opportunity to make a contribution, without getting up and saying "I fixed that up and I know all about it," so it just gives them a lead-in, yeah. [*4-1]*

Leaders performed many of the "behind the scenes" tasks, as one leader described, that while necessary were not always of interest to the average member, such as organizing meetings and events and filling out paperwork for group funding. Additionally, leaders encouraged member action, keeping them on task when the day-to-day aspects of land managing caused group involvement to wan:

> *Like we go for probably 3 months and we haven't had a meeting, and [leader name] might ring us up and say "When's your next meeting" and you know, kick it off? ... Whereas if there wasn't someone like [leader name] in the area, it's probably ... could go for 12 months without a meeting ... Whereas if you've got someone that rings you up and says "You know it's been 6 months since a meeting.." You know, "You're joking!" [4-10]*

In terms of maintaining community, leaders organized events for members to catch up with one another. This was especially important in MWM, after the program officially ended. In the words of the participants, the groups' leaders had their "finger on the pulse" of the group; they generally had a good understanding of members' strengths, the facilities and networking ability to pull in potential community leaders and resources, and the commitment, drive, and organizational skills to keep the organization functioning.

Additionally, participants expressed being inspired by the commitment and skills of their group leaders, and had a great deal of respect for their roles in the organizations. A common denominator amongst the cases was the unique strengths of the particular individuals who were leading the groups at the time of study. For example, some leaders brought both professional background/education and practical/local experience to the position. This could be seen in both the President of the GLC and the Project Coordinator of the DLC[4]. Both had university educations in land management, as well as government positions, and both had grown up on the land within the same community that they currently served, thus bringing to the group both professional knowledge and local credibility:

> *The staff from the Primary Industries and Fisheries, and myself, we have a professional training and background and experience, through … tertiary education, as well as.. Well for example, I grew up on the land, and I worked at home for a couple of years before I actually took on the role, so … I can talk the talk in the government lingo, but I can also talk the producer level lingo as well. [*4-3]*

Additionally, the GLC Facilitator was an experienced community organizer and anthropologist. He was immensely well-networked, praised by participants for his intelligence and abilities, and described as critical to the ongoing success of GLC. The President of the KWC had years of experience working with mills and logging operations, and thus brought an internal perspective on the industry to his position. The MWM Program had access to the same Extension agent who helped to pioneer the Program in 1983, and the President of TREAT had been enthusiastically leading the organization for 10 years.

An additional consideration in examining the role of the leadership in the success of these groups was the availability of funding to hire them. Throughout the cases, groups displayed a mix of paid and unpaid leadership – or "lions and Christians" as one

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[4] Since the time of study, the DLC Project Coordinator has been awarded the nationally competitive Australian Government Local Landcare Facilitator/Coordinator Award at the 2010 National Landcare Awards.

participant described in jest. MWM, KWC, and TREAT had access to grant money to fund teachers and facilitators. GLC originally had grant money for their facilitator, but at the time of the study he was working as a volunteer, as the grant had run out. In TREAT, a number of paid Nursery staff members were available to TREAT members. However, these staff members were not involved in running TREAT, whose actual leadership was composed entirely of volunteer Board members. KWC, GLC, and DLC also depended heavily on their volunteer Board members to make the organization run smoothly. While participants expressed the benefits the groups' dedicated, strong Boards, there was some concern voiced over the continued reliance on volunteer labor.

A final source of leadership for the groups came from the members themselves. Many of the participants displayed leadership in some way, such as filling Board positions or equivalent roles. Some had a high profile among participants because of their knowledge and/or experience. Others provided exceptional examples of how to properly manage one's land, and their properties served as demonstrations to others. Others were pioneers or innovators, unafraid to experiment and try new things in the field. Still others, while not part of the formal leadership, were dedicated members and contributed to the longevity of the group.

> *I've got a large number of roles it seems like … So.. I'm more of a networker, … I mean you've been with me 24 hours or less, and you see how many phone calls I get. Just about all of them will relate to Landcare. And that's just the way my life is … So I'm doing a whole lot, and I think people just know to call me, and that I'll get it done. [3-3]*

These groups also provided a good venue for these natural leaders to employ and share their skills. They may have even helped to attract potential peer leaders who otherwise might not have been motivated to be involved. The groups' leaders played a role in pulling in these peer leaders, identifying promising members within the local community and encouraging their involvement.

> *I keep saying to the landholders, "We're here because we reckon we're big, brave, independent people; and if we're big, brave, independent people … we have to carry our own share of the load. And I think finding and motivating those people who.. are that way inclined? Some people … they would die for Landcare, but they're not meeting attenders,*

they're not public speakers … So what we just have to keep doing is identifying the people who have the time and the inclination I suppose, to keep that hard core[*4-2]

By the time I'd been there a few years … they wanted a President, a new President. And because I'd been going every week, they said to me "Aw look, will you take on the Presidency? Because you go to everything, you're there all the time." And after initially refusing, saying "I couldn't possibly!", I was convinced you see, that I could run a meeting.[*5-12]

Section II: Information Flow

*I'm sure some people in the county think we're a bunch of hippies, or… you know, people who want to change things … And my thing that really confuses people is I say, "In order to keep things the way they are, you're going to have to change." And that's a very confusing statement. But if they think about it, it's right, because the whole world is changing now. And if we don't learn how to change along with it … we'll lose it. And, we'll lose this farm land. So **we've got to learn new ways**. And the more people get it, the more people come to Landcare. [3-3] [emphasis added]*

This section addresses what is a key focus of the study – the flow of information and knowledge within and beyond the study groups. Section II examines several areas. First, the means by which members are connected to new information and resources is examined, looking specifically at the media employed for communicating with members, the extensive networking potential of the groups (including their ability to network beyond the organizations themselves), and the effect of the groups on landowners' worldviews and awareness of various ideas and resources related to land management. Discussed next are the types of learning generated by the groups that participants cited as beneficial, including experiential learning, the development of practical skills, and learning that is focused on local, personalized information. Next examined are the effects of this learning on participants' behaviors, using anecdotal evidence provided by the participants. Finally, this section examines the potential for information and ideas to flow beyond the groups, into the broader (unaffiliated) landowner community, the potential barriers to this diffusion, and the impact on the local community and landscape.

2.1 – Communication

Yes, email and phone calls, or even … if it's nothing too pressing, you just see somebody and talk to them. Whether it's at a cattle sale, or in a paddock … if you meet somebody on the road you pull up and talk. [*4-2]

As reflected in Table 2, a variety of mediums were utilized for communication between members, between members and leaders or affiliated professionals, and between leaders. All cases relied on organized meetings or workshops for a main source of communication, as well as e-mail, though in some of the cases this was used mainly by

leaders. Another important source of communication for most groups was a group newsletter of some sort, which leaders often cited as an important communication tool, and for which members expressed appreciation. Phone calls and local media were also popular, as was word-of-mouth. Most groups had websites, and some were member-run, but this was not a commonly cited source of communication from participants. In MWM, communication among members and between leaders and members tended to be more frequent during the Program itself.

Table 2: Forms of communication indentified by participants

	MWM	KWC	GLC	DLC	TREAT
Meetings, seminars, workshops	x	x	x	x	x
E-mail	x	x	x	x	x
Newsletter	x	x	x*	x	x
Phone calls	x			x	x
Local media (newspaper, radio)		x	x	x	x
Face-to-face/word-of-mouth			x	x	x
Website	x**	x	x**		x**
Annual meeting		x			x
Member feedback, surveys, activity log	x	x		x	

* Not an organizational newsletter, run by a member for business, but GLC events were advertised
** Only in KWC was there mention of website <u>use</u> by a member participant, and member use in general was seldom expressed. However, GLC and TREAT did have member webmasters.

2.2 – Information Networking Potential

> *… that's the value too, to share local knowledge, but we wanted also to bring in some of the science and technology from the outside, to inform that network. But to very much just work within that local network. [*1-11]*

While connection with these groups provided participants with a variety of information and skills, one of the most valued aspects of these groups by participants was the network to which it provided them access, which for some was even more important than any specific piece of knowledge they retained from involvement. As one participant described it:

... there's a lot of information in there. But probably more importantly is the network that I developed out of that. Like, knowing some of the Extension Foresters and knowing some other Master Woodland Managers in my area ... The network piece I think was bigger. The material was good, the background information is good, but the network was huge. Is huge. [1-10]

Thus, while information was seen as beneficial, future access to information when new questions arose was seen as equally, if not more, beneficial. The groups often formed strong internal networks that members could tap into, but also often provided a medium for gaining access to external networks as well, pulling resources in to strengthen local networks. The networking capability of these groups was key to their ability to facilitate information flow to the community, and was a reoccurring theme across all cases, especially MWM and GLC.

2.2A – Networking within the Group

I think Landcare more than anything else has provided us with.. just people to talk to about things. ... It gives you <u>access</u> to people, which you possibly wouldn't otherwise have. [4-5]

The opportunity to expand their personal network was an important, and sometimes unexpected, benefit of the groups for many of the participants. Some participants, especially newer landowners, had almost no contacts or resources for management questions prior to joining the group. Affiliation with the group provided access to a variety of peers and professionals, including outside speakers, with whom participants were not previously connected, either because of lack of awareness, or simply lack of motivation, initiative, or apparent need to contact these persons before. As seen in section 1.6 when discussing community, one benefit of these networks expressed by participants in multiple cases was their stability; the groups provided an ongoing "information center" that participants could tap into as needed, as opposed to the one-time relationship they may have had with some professionals. Additionally, the diversity of the groups was a strength for the network in that it provided many specialties concentrated within the group itself, and leaders or members could point others to the appropriate resource for their needs. As one participant noted, "Here you've got a whole

bunch of information in one shot that you didn't have to find … a paid person to tell you" [3-3], indicating one advantage to a peer network. In addition to providing a source of information, the network also provided a forum for members to share information that otherwise may not have made it out into the community.

When prompted, participants often named specific individuals that they had connected with through the group, both professionals and peers. Examples included the group leaders, other affiliated professionals, and certain members whose names came up frequently during the interviews. These individuals often represented important additions to their network – as they could go to them with specific questions – whom they met through the group and might not have otherwise met. Sometimes participants had trouble recalling the names of certain people, which may indicate a lack of real usage; however, participants apparently still considered these people information sources, either past or potential.

> *I wouldn't like to go back to the knowledge base I had in my pre-Landcare days. Which was limited, very, very limited. [4-4]*

Another benefit of the network was that participants found that they did not have to know the answer to every question that came up on their land or was presented to them by another landowner, as long as they knew "who to call" in order to ascertain the answer. And as a result of involvement with the organization, they often felt that they did have this contact knowledge. Oftentimes the point of contact was one of the main leaders, though participants also at times mentioned other members or a professional they had met through the group. For participants that had become involved enough to know the other members, they cited knowing the strengths of others and being comfortable enough to call them if they had a question pertaining to a person's area of expertise. In addition to acting as a personal resource, participants expressed comfort in being able to "point people in the right direction," if they themselves did not know the answer. Additionally, the network was ongoing and could act as a stable source of references that members could turn to if they had a problem; the knowledge was at least there, even if it was not currently being utilized by the member. The notion of knowing 'who to call' was less

expressed in TREAT, but for this case (and others, as is discussed in section 2.2B) participants indicated that if the answer couldn't be found through TREAT, TREAT itself generally knew where to go to find the answer. Thus, while participants did not always remember specific pieces of information, they knew where they could find that information. Overall, knowing whom they could contact to get answers increased participant confidence, because should they go astray, as one participant noted, "I've got help at my fingertips" [2-8].

> *I guess one of the things that I kind of glean from these things is who knows what about various things. You know there are people you can call to figure out herbicides ... but it's always nice to know someone who has done these things and has some real experience at it. So I guess that's a good share of what I get out of these; it's not so much specific facts but who has done something, you know, who has harvested timber on their property ... I don't tend to remember those details very well, but I usually tend to remember who did something. [1-3]*

> *...we never feel uncomfortable anymore because we know where to direct the question. I think that's from the training too, I mean don't be- don't be nervous if you don't know the answer because somebody's gonna know the answer and there's always help or- there's enough help around. [1-8]*

Finally, as observed mainly in KWC, DLC, and TREAT, the connection to the group provided access to a network of other resources, in addition to people, such as workshops, funding (mostly DLC) or information about funding. Additionally, management materials such as equipment, pesticides, books, and information pamphlets were sometimes available to members or members could share these among one another. Members were also kept up-to-date about the latest topics of interest, quality information, and scientific research through keeping in touch with the group.

While in general these resources may not be exclusive to members, participants indicated that it was through affiliation with the group that they became aware of them. For instance, the Soil Health Workshop held during the site visit for DLC was arranged for one sub-group (Ravenswood Landcare) of the DLC. While others would not have been turned away, it was to that specific group that it was advertised.

> *I hardly ever go on the internet and look up to find out when the next round of funding is coming through ... Even if you look it up, it's probably 20 pages of criteria that you have to*

be to get it. So where it's so much easier at the next Landcare meeting to say, "You know, do you think we're eligible for it?" And they just say, "Yes" or "No," you know? [4-10]

And I'm sure the Co-op ... if something comes out, new ways to get rid of invasives, they'll be one of the first few people to know it, and they'll pass the message on. ... 'Cause if any of our members would come out with a way to kill buckthorn easier I'm sure they'd tell me. [2-1]

2.2B – Networking Beyond the Group

So, you know, we're not- we don't keep in our little hole, you know we don't sort of have a "TREAT hole." We sort of work with everything. [*5-12]

As indicated by the above quote, these groups are not isolated, nor are they alone in terms of available community groups. Most participants in this study were involved in at least one other local landowner or community group. Some were involved in several, or were even involved in the leadership of another group. Examples include the Oregon Small Woodlands Association in MWM, the Wisconsin Woodland Owners Association in KWC, the Carol-Grayson Cattle Association in GLC, AgForce in DLC, and the Society for Growing Australian Plants in TREAT. Groups tended to feed into one another, with participants getting involved in first one, and then another, after discovering it through the first. As mentioned in the discussion on community-building, this interplay between groups contributed to building a network within the broader landowner community. This dynamic was especially important in MWM, where the Program helped to inform and train groups of landowners, with the hope that they would become involved in some of the local organizations afterwards.

> *And in the Small Woodland's Association meetings and their programs there's always a couple of Master Woodland Managers there, and when the meetings come up there will be questions that arise that they may answer. [1-1]*

GLC also exhibited external networking power. GLC was unique in that, rather than functioning as a singular organization, it more closely resembled a network that consisted of an assemblage of connected or affiliated organizations, with a core group of community members and leaders at the nexus tying them all together. From the local water quality group to Landcare Australia, GLC's network was widespread and contained

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a diverse make-up of affiliates. TREAT also evidenced the ability to network with other Landcare or Landcare-type groups, especially when it came to cooperating for plantings. The President of TREAT even pioneered a unifying group meeting for the various local revegetation groups called SATRA (Southern Atherton Tablelands Revegetation Alliance) that consisted of a casual gathering of group members, and sometimes government agents, with the goal of encouraging communication between these similarly interested groups:

> *... They've all got different names, but essentially they're Landcare groups. ... So, all the landcare groups talk to each other, and I'm very big on keeping that going. That everybody should talk and know what each other's doing, and help each other, for the final result! Of, you know, revegetation in appropriate places. [*5-12]*

In some cases, participants had difficulty differentiating between their various group involvements. This was most common in MWM, where participants may have taken the Program years ago, and since moved on to involvement in other groups. Several participants expressed difficulty in separating out contacts that they had made or actions they had taken as a result of being involved with one group or another, and sometimes their anecdotes digressed to illustration of a different group than the study group, as illustrated by one MWM participant:

> *The year 2000, everything happened. I was in ... the Co-op. And them same people were in the ... Master Woodland Manager program. Them same people were going through the meetings of the Small Woodlands. So, we were seeing each other every other night practically, and I was on the Board of both of them, and I didn't know which meeting I was at! [1-14]*

It was difficult to determine whether or not there was tension or competition between the various landowner organizations, as viewpoints on the subject differed. However, largely this did not appear to be the case, with groups functioning instead as complementary pieces of a larger landowner community.

In addition to networking out into the community, well-connected members sometimes pulled new connections or resources into the group through their own personal networks. Additionally, members may have helped unaffiliated friends or neighbors tap into the group's network, and leaders sometimes directed outsiders with questions to members who could answer them. Groups also networked resources into the community by

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bringing in outside speakers, or by connecting members to other external resources if they could not provide the needed information or materials themselves. In DLC especially, the community was situated within close range of at least four major researching facilities, and the Committee had good relationships with these research bodies.

> *And so I'm kind of the connector. That's where I kind of- I think I've brought to Landcare, is I try to get more information out about Landcare, and connect people with similar interests. [3-12]*

> *And you know through programs like Master Woodland Manager they can kind of direct these people to sources of assistance, or be sources of assistance themselves. [1-3]*

> *Another bonus of the DLC is that we are fortunate to be closely associated with other organizations that are doing similar things. ... So we've got the connections at the grass roots level, but we've also got the connections above us as well, which we need. [*4-3]*

2.3 – Increased Awareness

I had no idea how enormous a universe of information is out there. No idea. [1-8]

Participants across cases expressed the idea that involvement in the program or organization made landowners aware of issues, ideas, and resources that they never would have thought to seek out or learn about if not for the organization. This was often an unexpected benefit of group involvement, with participants at times expressing surprise or awe at how much there was to know that they had not considered previously. Participants felt that the groups kept them up-to-date, as expressed in the following quote from a DLC grazier:

> *Let's put it this way, if you didn't have anything to do with Landcare or whatever, you could sit down on these places and you could work on it for years, and you know you're probably like an emu, you have ... your head in the sand, if you know what I mean.[4-11]*

For some participants, especially newer landowners, involvement with the group generated ways of thinking about the land that had never before entered their mindset. These ideas included management techniques, updates on timely issues (e.g. climate change), and general awareness about the ecological landscape and its functions. As one

GLC participant described it, "Landcare just brought more of a wholeness to a vision" [3-3]. The notion of increased ecological awareness was especially strong for KWC and TREAT, which both had large practical application components; through field activities with the group, participants gained a greater understanding of local ecology and how it related to their management.

> *I said "Aw, I'd really like to plant trees that wouldn't attract flying foxes," because I thought, "(in disgust) Awwgh ... flying foxes." He said, "No, [name], ... forget about that," he just brushed that aside! Which I now understand, because even now you get people asking, "I just want to plant these particular species," and it's just not the way ... biodiversity goes. [*5-12]*

Involvement with the group also increased awareness about various resources, such as professional sources of information or materials, as well as educational opportunities, management tips, funding opportunities, and various other information sources.

> *... the Extension Service has a huge amount of information available, and I don't know how well people tap into that. You know if I'm just Joe Public and I've got a question about a tree.. you know if you'd have asked me two years ago, or two and half years ago, I probably wouldn't have even thought to call the Extension Service ... I'd be like, "I don't know. Call an arborist, right? Arborists deal with trees." [1-10]*

> *Interviewee 1: Oh I think it goes back to that.. point there before that ... funding that you can get to help you a bit more.*
> *Interviewee 2: So if we weren't in Landcare or weren't involved with anything, you wouldn't hear about those. ...'Cause you never get anything through the mail ... over it. It's just what we pick up at the meetings. [4-12]*

Finally, though not as strongly expressed as the above ideas on awareness, there were indications that the continuing nature of the groups helped to keep management issues present in landowners' minds, especially for forest owners who might otherwise have long periods of inactivity between harvests, such as in KWC. Additionally, the groups helped to place ideas on people's mental agendas, so that they considered actions that they might not have otherwise. For instance, DLC helped owners focus on their goals and remain conscientious about "the big picture." The repetition available through multiple formats for learning (meetings, courses,) within the group and the consistent presence of Landcare helped to keep issues readily available for consideration and always in the forefront of owners' minds - "Landcare, Landcare, Landcare."

Well there's <u>more</u> contact just because there's … the events to go to and, you know as opposed to, you know for instance if I wasn't involved in the organization then you know I would have done this harvest last year that was … in my management plan … I would have had a year of more or less intense activity, and then maybe.. maybe I wouldn't talk to anybody for years to come! … So being in the Co-op sort of … keeps it more in the front of your mind as opposed to just going way back on the backburner for years on end. [2-3]

2.4 – Experiential Learning

We make a lot of field trips out to various places when we're going through the program, we went to all the different class members' properties … we'd talk about stuff in class, but then we'd go out and do it on the ground, or look at it, and that was probably the part that seemed the most important to me. [1-6]

As one participant in TREAT noted, "people love to go and *do* things…" [5-5]. Time and again, participants expressed their appreciation of "hands-on" learning. For some participants, the chance to practically apply and see what they learned during formal lectures or presentations was of greater use to them than the presentations themselves. Theory combined with practical application/demonstration was a learning tool employed by most of the cases, especially MWM, KWC, and DLC, which had frequent classes or workshops. Participants enjoyed the opportunities to go into the field and visit properties, as it allowed them to practice what they had learned in the classroom as well as benefit from concrete examples on the landscape. These experiential learning opportunities allowed for peer exchange – in addition to learning from professionals – as demonstrated by one KWC participant who noted the benefit of "just talking to the guys as we are walking through the woods." Experiential learning opportunities were evident in all cases, though they were not prominent in GLC; while the information networking aspect of GLC was frequently expressed, there was not a significant field component to the organization itself.

In addition to the benefits of observation and hands-on learning, participants appreciated the chance to develop skills that were directly applicable to their situation and that would increase self-sufficiency. In MWM, while participants were provided with many hours and pages of theory and factual information, many expressed appreciation of what they

referred to as "practical" information and the opportunities that they were given to develop better management skills. The same could be seen in DLC, where members were practitioners who worked with their hands every day, and were most interested in "action learning," rather than sitting through meetings. As one participant stated,

> *The field days are things which are practical, where they can actually see what's happening and say, "How do I do that?" So if they can go away with a skill, they'll turn up. [*4-2]*

The emphasis on skill development was also especially strong in TREAT, where involvement with the group helped members to learn how to build their *own* nurseries and plant their *own* trees, rather than rely exclusively on purchased materials and labor. Participation with the Work Bees and planting days offered opportunities to develop their skills. As one participant put it, "You've just got to get in there and do it!" [5-6]

2.5 – Localized Information and Focus

> *Originally, the catch-cry was "Local people taking local action to address local problems." … to a fair degree that still is the case, that people are trying to address problems that are important to them. [*4-1]*

A unifying idea among the cases was participant praise of the local relevance of the information provided to them. As opposed to other state-wide programs, their group was tailored to the specific interests of the local geography and the local community. In terms of the degree of participant expression, this theme was strongly observed in KWC, DLC, and TREAT, observed for some areas in GLC, and least observed in MWM.

One aspect of this local focus was geographic and ecological relevance of the groups to the local area. Whether it was the woods of the Kickapoo Valley of Wisconsin or the rangelands of the Burdekin River Catchment of Northeast Queensland, the groups helped to provide area-specific knowledge and resources to their members. Keeping the group geographically compact ensured that resources were more easily accessible to members. In the production-oriented cases, KWC and DLC, the groups provided support for the local market. This focus was also observed in GLC for Grayson Natural Foods, as was

an emphasis on supporting the local community of Grayson County, specifically. Finally, having access to local people through the groups was viewed as helpful to newcomers to the region, who were perhaps unfamiliar with the local climate, vegetation, soil, and other growing conditions.

> *The thing about the Co-op is that at least it's centered in this area, so it's based on our market, on our terrain and conditions and stuff like that, so it's, you know a little more localized and ... more useful stuff. [2-3]*

This last idea was especially prominent in KWC, DLC, and TREAT. The KWC was located in the Driftless Region of Wisconsin, an area that differed geographically from most of the state, and for which research and regulation in other parts of the state was not always applicable. In the sprawling rangelands of the DLC's 70,000 km^2 coverage area, grazing conditions could vary from property to property. Participants were sometimes frustrated by the State government's lack of recognition of this fact, and appreciated the DLC's specificity to their needs. TREAT had a very narrow focus on restoring a handful of specific types of local rainforest ecosystems, and was exacting in the trees that they grew – down to a focus on seed provenance. Whereas the State Forestry often provided timber trees that were better suited to drier ecosystems, and other Nurseries may not have known exactly which type of trees grew in which type of rainforest, TREAT helped members to foster native, area-appropriate vegetation on their properties, as evidenced by their motto: "The right tree, in the right place, at the right time."

In addition to geographical relevance and convenience, participants valued the personalized nature of the groups. It was frequently observed that people do not wish to waste their time on attending meetings and workshops unless they can apply what they learn to their own situation, or the issue is of personal importance to them. This relevancy was sometimes noted as the reason that participants preferred the study group over other groups that they had interacted with.

> *I am involved in other things, but Landcare's just important to me 'cause it's our industry, it's what we do, it's what we are. So just made sense to be involved in it. [4-4]*

Additionally, because the groups were fairly small, members could benefit from personalized attention from the leaders, who sometimes knew their specific land (or could take the time to come see it) and could offer suitable advice.

> *And the DNR is great too. I think I still probably learn more from the Kickapoo because they're more at hand with you. You know where, DNR officer, he's got millions of acres to take care of, where [the group leader] and them can come out to your little 30 acre piece, or 100 acre piece and sit there and walk through it with you and tell you "This is what you should do and shouldn't do." [2-1]*

Some cases exhibited further localization through the existence of sub-groups within the main group. This was mostly observed in DLC where a network of smaller Landcare groups existed under the DLC umbrella, leftover from days when only groups could apply for government funding[5]. However, there were a few examples from other cases as well: MWM had individual cohorts of Master Woodland Managers, KWC had a "Work Party" in one community, and TREAT had groups of friends that would come together for ad hoc small plantings for each other. One benefit of these small groups was their personal nature. Members could name all of the people involved, everyone was familiar with one another, and the issues they discussed were micro-specified to their immediate area. In DLC especially, the smaller groups helped to facilitate information flow from the larger group.

Landcare as a whole provides a unique model of specification to local needs, as despite its international permeation, individual Care groups are formed around local issues. This adaptability was recognized by some participants in GLC, who saw how the Australian model had succeeded on a large scale by keeping the multitude of individual groups localized to the needs of the community; they envisioned a similar model succeeding in the U.S. The Australian Landcare groups in the study provided an excellent example of this specificity when juxtaposed, as can be see when comparing the goals of participants from "bigger country," in DLC…

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[5] Many of these groups had dissolved since the law changed to allow individuals to apply for funding, but a few new groups had formed to address specific issues.

I think everyone in the area had a hang-up on it before, about Landcare, because we see ads on TV about 'Landcare is where you take your kids down to the park, and plant a couple of trees in the city, you know. The city people have got their Landcare, and all it is, is a local park where they go and plant some trees ... Whereas our Landcare's totally different ... We're not planting trees. ... Initially ... even I had a half a hang-up over that. ... Whereas when you explain to people it's not about planting trees ... all that sort of stuff. Yeah, it's just about your whole operation basically, and ... how you care for the land, and, yeah.. make it better. [4-10]

…to those of participants from "small country" in TREAT.

AK: who exactly are you trying to reach with this organization, in terms of membership?
*Interviewee: Well anybody who wants to plant a tree. That's about it, yeah. [*5-9]*

The public view of global warming and its impact wasn't even an issue when we first bought our block of land, and it wasn't a widely sort of looked at issue within the public. But now that that's there, and we know that, you know trees soak up the carbon, and are crucial in the release of carbon and the storage of carbon ... I mean you.. you just <u>have</u> to plant trees, everybody has to plant trees! Otherwise ... what's going to happen? [5-2]

As can be seen, the groups had very different specific goals, but the same overarching goal of improving their local landscape. As one participant noted, Landcare is about "getting people to … try and do the right thing by their country" [4-6].

2.6 – Impact of Organization on Knowledge and Confidence as a Landowner

*I think the greatest impact is giving people the confidence to do the management that they've planned to do. I think that's the major impact. [*2-4]*

It was TREAT that really got us.. well gave us the knowledge if you like, and the encouragement, to do it. [5-10]

Across all cases, participants responded positively that participation in the group had increased their knowledge base and confidence as a landowner to discuss and do management. In terms of knowledge, the groups provided a base or starting point for newer owners, and built upon the knowledge of veteran landowners. The groups widened participants' knowledge base, educating them on various facts, issues, and ecological knowledge. However, participants also stated that they specifically came to have a greater understanding of their own property, such as what grew best on it, what key problems required attention, and so on.

*I've gone to a lot of seminars and generally have learned something from every one of them. I think … it gives you the background to do a much better job of managing your own woods. [*2-5]*

In terms of confidence, the groups provided participants with enough knowledge that they felt confident discussing issues or giving advice with others – partners, family, friends, and neighbors. As one participant explained, "I'm more comfortable when I say, "Ok Mom, Dad may have done *this*, but we should do *this*" [1-2]. Participants were also given the self-confidence to engage in management on their own property, from learning that it was okay to cut trees, to establishing their own nurseries. Participants also received encouragement from witnessing successes on others' properties; from controlling invasives, to revegetating a cleared landscape, it was helpful to see that, as one participant stated, "Well, you know … it can be done" [4-9].

2.7 – Effects of Group Participation on Actions and Behaviors

*I suppose there are no <u>mandated</u> responsibilities, but I suppose if you feel about the issue enough to want to be involved, then … that's probably a filter that a lot of your decision-making goes through. If you're just looking at land management, you say, "Well, you know, is that good landcare?"… "If I did this, is it good landcare?" So I suppose … they become habits. [*4-2]*

In addition to increasing knowledge and confidence, involvement with the groups led to an increase in overall interest in land-related issues for some participants, and helped them to feel more connected with their land than they had been prior to joining. Involvement changed how participants viewed their land, as in DLC where the concept of "Landcare" was seen as acting as a filter for future management decisions. For some, the groups acted as a "launching pad" toward greater involvement in the landowner community, via greater involvement in other groups. This was especially evident for MWM, as it was a finite program. Involvement made participants more visible in their communities.

It has made me more active, and it has I guess made me more proactive … in doing things, you know and reaching out to help out the small woodland community… [1-3]

Finally, just as involvement led to increased *awareness* of resources, as discussed above, for some, involvement led to increased *utilization* of resources that may have been accessible beforehand, but were not frequently employed by the landowner.

> *I think it doubles how <u>much</u> I would talk to anyone. Because before, I did nothing, like a lot of people do. So now, I use those resources, whether it be members or anybody affiliated with them, where before I probably wouldn't have. [2-8]*

In addition to understanding how group participation influenced involvement in the management paradigm, a key interest in this research was to understand more about the degree to which these groups influenced landowner's actual management behaviors. This turned out to be difficult to ascertain for some of the cases. For instance, in MWM and KWC, other than mention by some of invasive species control, participants demonstrated difficulty coming up with specific examples of behavior changes they had implemented because of involvement with the Program/Cooperative. In GLC, while some participants noted specific changes already made, others spoke more of potential future changes that were on their "list." However, related to this latter notion, involvement with the group did appear to have one of two effects. First, it gave participants direction for future behavior changes. Involvement for some affected their way of thinking about their land; for example, thinking more about the grass instead of the cows. Secondly, for those who already had goals upon getting involved, it helped to reinforce those goals and/or provided them the means to implement those goals.

> *I had … the management plan made … before I joined the Coop, and so I was already interested in doing management. And so for me, joining the Coop just kind of helped me facilitate what I was already doing, as opposed to … changing what I was gonna' do. [2-3]*

This last benefit was observed in the Landcare Australia cases as well. DLC and TREAT presented the strongest evidence for behavior change, with participants citing changes they had made to their land such as watering point installation and fencing for cattle, and establishment of their own nurseries. In both cases, participants usually had a baseline idea of their goals going into the group. Thus, rather than providing a massive shift in goals, the group "improved my thoughts" or "provided me with ways to go forward."

> *It shaped where we started from, the starting point, and how we have done our revegetation. … We wouldn't have known, really. I mean most people I suppose, they look at an area'r of*

land and think, "Well I start at one end, and I plant trees, and I just keep going through" ... But it's not <u>like</u> that ... you have to look at the <u>shape</u> of the land ... We've planted about 8000 trees up to now, in 6 years. [5-2]

One way in which DLC facilitated these behaviors was through economic incentive, in the form of government funding. The group provided project grants to landowners that lowered personal costs when implementing new management techniques, and put less pressure on them to try and extract more from their land to pay off debts.   History has shown that when provided with funding for projects, DLC landowners contributed an in-kind amount of nearly 3 to 1. Participants frequently expressed that funding helped them to implement projects faster than they would have been otherwise able to do. While funding did not necessarily change goals, it allowed landowners to *achieve* their goals more readily by providing the financial opportunity to do so, as well as the motivation of a required deadline to expedite the work that needed to be done.

Interviewee 1: Without ... the funding that you can get through them to help you ... we wouldn't have all this fencing up that we've got now. It'd be over a longer term, you know, I mean the fencing would eventually go up, but it wouldn't be as quickly ... So we were looking at ... over the next 4 to 5 years, fence all that up. Where it's all done in the last 12 months. [...]
Interviewee 2: The funding helps you do things that maybe might have taken you 3 or 4 years extra to do. [4-12]

One drawback noted by a leader was that occasionally landowners who were not committed to the funded projects returned to old habits when funding ceased, though this was not expressed as a major concern. In addition to landowner projects, funding allowed the DLC to host events, as well as hire staff, the benefits of which are discussed further on.

While the other groups did not have the same level of access to government funding for individual projects that DLC had, they did provide other forms of economic incentive to encourage involvement. All groups offered free education of some kind, such as workshops, field days, or speakers. TREAT could supply small amounts of free trees in some cases, as well as free labor for plantings. Some groups assisted members in achieving financial aid by helping them to apply for grant money. In KWC, members

were aided in achieving tax relief through assistance with filling their Managed Forest Law requirements. Finally, the goal of the GLC was to help landowners make their own operations more profitable, which was incentive for some to become involved.

2.8 – Diffusion into the Broader Community

If there's a good idea somewhere, and Landcare does a bit of a field day on it, there might be 30 people. There might be 50 people. But, it then expands outwards from there.… There's nothing formalized. And, it's just osmosis, it might happen here, now, it might happen over there next year, it might over there five years time. ... Fire spreads out from where it starts. And, you know, so do ideas. [*4-2]

The overarching goal of this study was to examine the role of peer-based landowner community groups in facilitating information flow to the landowner community. The study itself examined the effects on landowners directly involved with the group. However, a goal of the research questions was to also obtain a better understanding of how these groups might be contributing to information flow to the broader landowning community, including those unaffiliated with the group – the "second tier," "third tier," and so on. Section 2.8A captures data pertaining to diffusion from the organization to the broader landowning community; section 2.8B looks at diffusion and outreach efforts to the non-landowning community. Potential barriers to diffusion to the landowning community are examined in section 2.8C. Finally, the overall effects of this diffusion on the landscape and community are examined in section 2.8D.

2.8A – Diffusion to the Larger Landowner Community (Active, Passive)

There appeared to be two avenues by which information extended beyond the group. The first was through **passive diffusion**, a slow leaking of information from the group through informal channels, such as word-of-mouth. The second was through **active diffusion**, or intentional outreach efforts by leaders and members of the groups through formal channels, such as volunteer efforts, advertising, and events. Elements of both methods were present in each case.

For example, both methods of diffusion could be observed for how groups advertised to new members. Many of the forms of communication listed in section 2.1 above were the same mechanisms employed to reach new potential members, such as phone calls, local media, and word of mouth, educational events, as well as a booth at the County Fair in a couple cases. MWM, KWC, and DLC were more proactive in soliciting the organization than GLC and TREAT, though all relied on a mix of methodologies. Leaders in the MWM program sometimes hand-selected landowners that they wished to join the MWM. In KWC and DLC, the group leaders were constantly looking to incorporate new landowners, with the KWC advertising to MFL enrollees and the DLC calling landowners that might be interested in applying for project funding. This proactive approach appeared to have had good results, as the KWC had grown each year since its inception, and the DLC had high levels of participation – over two-thirds of the landowners in the region it covered.

GLC and TREAT were less proactive than the other cases about soliciting for the group, relying more on word-of-mouth to spread interest in the organization, which they found to be the most effective means of getting the word out. As one leader in TREAT stated, there is no aggressive "Trees need YOU" approach. However, both groups advertised through newsletters or local newspapers for events, and likewise, MWM, KWC, and DLC also relied to some extent on word of mouth. In fact, there were quite a few examples of members attempting to pull in new members. As one leader from MWM noted, "one thing I notice, is where I have MWMs I have people who want to *be* MWMs." [*1-4]

> *AK: So how did you hear about TREAT then? …*
> *Interviewee: Just on the grapevine. Yeah, I can't honestly remember, but somebody- …*
> *Somebody would have told me about TREAT and that I could get trees from them. [5-11]*

As with soliciting for new members, extending the reach of the information and effectiveness of the group to the broader community also entailed a mix of passive and active diffusion. There were several ways that information and ideas passively trickled

down to others who were not in the group. Involvement in the group gave participants a heightened profile in the community; friends and neighbors knew that members were involved, and sometimes approached them with questions. At times, information exchange was less direct than this, with casual conversation between members and others leading to conversations about management. Also, when the group had success in the community or on the landscape, this became visible to the broader community, and may have drawn more members in.

> *People are seeing we're selling cattle, and people are getting maybe a dollar more per pound for hanging carcass weight, and everybody's saying, "Wow, how can we get in?" … And you have a success, and we don't advertise that success, but every cattle producer in this area knows about it. [*3-1]*

The same can be said for individual properties. Neighbors at times will look across the fence, like what they see, and take interest in following suit. In fact, in DLC and TREAT, leaders specifically noted that they depended on this sort of passive diffusion to help them "break in" to more resistant communities once they had worked with one or two properties within that community.

> *Say there's a particular cluster of five to six properties that we're having trouble breaking into, if we can encourage one of those in a centralized region to be involved with the Committee, we've got faith that that will break down the barrier for the neighbors to that property … The neighbors of that person which we engage will talk directly with that neighbor, that particular person and say, "How come you're involved with those larrikins, what's going on there?" And they'll say, "Well, you'd be mad not to." [*4-3]*

Finally, the longevity of some of the groups contributed to diffusion through general community awareness. This was most observable for DLC and TREAT, which were both over two decades old. As one leader noted, "the locals know that TREAT's there." According to KWC's President, the Co-op is also getting to be better known within the local community. This level of saturation may contribute to passive diffusion in the community.

> *AK: And how did you first hear about Dalrymple Landcare?*
> *Interviewee: We've known about it since the beginning of time!   It's just part of our community, you know. … It was the first Landcare group in Queensland I think. … It's always been very active … [4-5]*

There were also many means by which groups and their members *actively* reached out to the broader landowner community. In MWM, this was the central goal of the Program – to train landowners who could then disperse throughout the broader community and share their knowledge:

> *... recognizing that these are people from the community who reach farther into the community then I can from my desk, both physically and culturally-socially. They are members of their neighborhoods and so forth ... their involvement in watershed counsels, OSWA, all those things; those are peer to peer activities and that's exactly the kind of stuff that it was designed for. So it was set up because we recognized that and I don't think we have ever been disappointed that it happens. [*1-4]*

Master Woodland Managers used their volunteer hours to reach others in a variety of ways, from working the State or County Fair booth, to participating in a mentorship program, to actual site visits to give advice to other landowners. Also in MWM, as well as the other cases, participants saw themselves as connectors for people to resources in the groups, or alternatively, conduits for bringing information from the group to people in the community who were not "joiners" by nature. Additionally, while information often passively flowed through the membership to the outer community, some participants were proactive in soliciting what they had learned, or the organization itself. Some of the opportunities for this outreach included connections with other groups or networks, as mentioned in section 2.2B, through which information could flow through severally affiliated members.

> *The new people that have just bought land recently in the area... those are the people I kind of want to get to. And target them, I guess you might say. To say, you know, "Have you heard about the program? Are you in the program? Have you done anything with it?" ... And really I guess that's the impact I want to be able to make. [2-7]*

The group itself was sometimes proactive in reaching out to the broader landowner community, mainly through presentations, workshops, and other events. These events were often advertised to the community at large, and not exclusively to members, in the hopes of attracting new interest. For DLC, event notices often went out to all properties regardless of involvement. TREAT, though largely a passive group in terms of their outreach, made an active effort to approach landowners living within potential corridors in order to gain permission to revegetate on their land.

2.8B – General Community Outreach

In addition to diffusing to the broader landowner community, most cases engaged in some sort of outreach to the local community as a whole, especially the youth. For example, some MWMs spent their volunteer hours in youth education, and both GLC and TREAT had close affiliation with the local schools. Examples include GLC's Land Stewardship scholarship contest and their Fuels for Schools project (woody biomass heat in schools), and TREAT's "TREAT on TAP (Tree Awareness Program)" and "FLOW" (water quality awareness) programs. Several members of TREAT also frequently offered their land as a site for school visits and research, as well as a visit site for recent migrants or visitors to the area who were directed to them by the leadership.

More so than any other case, GLC had a focus on improving the community as an integrated whole, rather than a focus on the landscape or landowning sector specifically. From tourism, to local foods, to forest landcare, GLC took a holistic approach to its goals for the Grayson County community. As a group, they were beginning to gain recognition and the confidence of the community. However, some amount of disconnect between GLC and the broader community was evident. They had trouble gaining interest for the above mentioned Land Stewardship scholarship, despite its high value, and they also had some difficulty gaining new members. While this could be due to a weakness in outreach, it could also be in part due to the fact that GLC was a relatively new group, and still gaining visibility in the community.

Outreach to the non-landowning community was less visible in KWC and DLC, which may be due to the production-focused nature of both groups. However, as mentioned in section 1.1, DLC did make efforts to reach out to the urban community, in order to clear up misconceptions and foster a better understanding of rural communities and landscapes.

In summary, not only does outreach benefit the community, but it may help to raise the visibility of the group and its members.

*There's a big educational effort by TREAT, they do a lot of work in the schools, and young
kids. Again that's.. it's education and awareness I guess would be the biggest impact TREAT
has on the community. [5-10]*

2.8C – Potential Barriers to Diffusion

The above evidence that communication was occurring between members of the
groups and the broader landowning community was replicated throughout the cases.
However, as with behavior changes, participants had trouble at times providing specific
examples of instances where they had peer exchange interactions with landowners who
were not involved in the group. Several themes arose consistently across cases that may
explain potential barriers to the diffusion of information and behavior change to
landowners outside of the group.

The most frequently cited concern among participants when discussing outreach to others
was an acute hesitation toward being a "pushy neighbor," as it was described. Most
participants were cautious, even reluctant, to share knowledge, information, or advice
unless it was specifically asked for by another. This in part may have been due to
humility or shyness, with members not seeing themselves as outspoken people.
Additionally, some noted the futility of such actions, saying that people cannot be forced
into action and do not enjoy being told what to do. However, the main reason was best
captured by the following quote from a DLC grazier:

*There's a deeply held belief in the bush that, you know, it's not your business to ah, to tell
your neighbor how to suck eggs. … If your neighbor asks, you offer? Ah, but you know,
we're all in the bush basically because we're probably independent people. Ah, if we weren't
independent, we'd find an easier way of existing. So we're in the bush because we're
independent, and the last thing we want is somebody saying, "Well geeze mate, you should
have done <u>that</u>, that was bloody stupid." … It's all carrot and no stick. [*4-2]*

In other words, it was seen as taboo in the landowner community to give advice where it
was not sought. Participants frequently stated that caution much be exercised when
giving any sort of advice, in order to avoid the social *faux pas* of telling your neighbor
what to do. This may have been an issue of mutual respect as well; participants don't
themselves appreciate being told what to do, and thus show others the same courtesy.

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I can go to your place and I'll see the way you're doing something and, "Oh yeah I can apply that." But I wouldn't like you to sit there and <u>tell me</u> how you did that. [4-7]

The leaders of the groups were cognizant of this taboo as well. TREAT, for example, used great caution when they approached landowners whose land they wished to plant on. This may have been part of the key to TREAT's success, in that it was made clear that there was "no encroachment on your business whatsoever" [*5-9]. A similar approach was taken by the President of GLC. However, there did appear to be a line between being pushy and being proactive. The Project Coordinator of DLC noted that he sent invitation letters for events to everyone, every time, even to the traditional non-joiners, "'Cause you never know … One day they'll open the letter and say 'Oh of course, I'd love to go to that!'"

While this obstacle was prevalent, one participant summed up a point of hope – that the peer learning model may be a way to overcome the potential discomfort associated with 'pushing' ideas on others:

I really think that peer to peer is way better. First of all it's not a professional telling someone what they ought to do with their land, it's just another land owner that really isn't going to tell someone what to do, they are just going to share their experience. And I think that can have a lot of influence on folks. [1-3]

Another commonly expressed issue was the rarity of follow-up after participants' exchanges with other landowners. While advice may have been given, for the most part the participants had no knowledge of what the recipients of the information chose to do afterwards. Additionally, participants noted that people may have picked things up from property tours or conversations without the participant's knowledge. Thus, while it is possible that people were adopting the advice and implementing change, the participants did not know about it. While not necessarily a barrier to diffusion, this does present a barrier to understanding the true impact of the organization.

There's certainly a lot of people that, over the years, we've … introduced them to the co-op as an educational opportunity, and something that could be a benefit to them. … If we see them in meetings then we know they've joined but … I don't do follow up calls with them and say, you know , "Did you do this?" or "Why didn't you do it?" [2-11]

A common expression among participants was that landowners in their region were very "independent." That was the more flattering term – others included "insular," "recalcitrant", and "pig-headed"! It was noted that because of this character trait, some locals, especially of the older generation, were uninterested in changing longtime habits. Self-sufficiency was recognized as a value for many landowners, including some of the participants. Additionally, it was recognized that some community members would never be interested in associating with the group, as they were uninterested in meetings and other group functions. This final characteristic was particularly troubling for TREAT when a few landowners living within potential corridors would not cooperate. All of these traits may present a barrier to diffusion, at both the giving and the receiving end.

> *We fully recognize that there's a group of landholders that we're never going to be able to have an impact on ... those that will not be willing to participate, not matter how much, incentive you offer or what approach you take. ... Our doors are open to anyone, and we do approach people in that ... category of not being interesting or not seeing the benefit that we would like them to see from being involved. But we try not to focus our work in that area because it's a resources intensive approach. [*4-3]*

Other observed barriers to diffusion included difficulty in reaching absentee landowners, and differing financial capabilities of various landowners.

> *...engaging the non-resident person ... they're not around all the time ... and they may not have that interest in terms of wanting to get to know a lot of local people either [2-11]*

> *All of my neighbors around here are farmers, old time dairy farmers, ... and they're not interested in sustainable forestry because if they were to go in the MFL, they would get a tax increase.[*2-6]*

2.8D – Impacts of the Organization

As a final point of exploration when considering the external reach of the organizations, participants were questioned on their perceptions of the overall impacts of the groups on both the landscape and the local community.

In terms of the landscape, the majority of participants expressed that change was occurring on the landscape, and that the group was contributing to this change. In MWM,

KWC, and GLC, some participants viewed these changes as a secondary effect of encouraging sustainable land management. For example, in GLC, the youngest organization in the study, participants indicated that changes on the land would come with time, and that accomplishments such as the establishment of Grayson Natural Foods would contribute to this change. Others from these cases felt strongly that their organization was making a direct impact on the land. Part of this observation was linked to concrete measures of improvement, such as the number of MWMs who had won the American Tree Farmer of the Year award, the number of KWC member acres enrolled in the MFL program, and the number of GLC member acres placed under conservation easement. These sorts of measures were observable in DLC and TREAT as well; several TREAT participants had their land in Nature Refuges (similar to a conservation easement), and the properties of the DLC membership covered an area approximately two-thirds the size of West Virginia.

Observed impact on the landscape was more frequently noted by participants in DLC and TREAT. Both groups had been active for over two decades, and thus had been able to observe their progress in "changing the countryside" over time. Participants in these cases overwhelmingly indicated that they could see change on the landscape, especially ones that had been in the area since the inception of the groups. In DLC, this translated to better grass coverage during dry spells and less soil erosion. In TREAT, this meant more trees on the landscape, healthier creeks, and the appearance of indicator species of healthy ecosystems on participants' own properties since revegetating, such as platypus and the culturally popular tree kangaroo. In TREAT's case, participants recognized that even the approximately half million trees TREAT had planted on the landscape amounted to little in terms of quantity, compared to what had been lost to deforestation. However, because TREAT was strategic about their plantings, their main goal being the building of biological corridors, these plantings were of great *quality*, and had real benefit for the landscape.

> *We help people to* <u>*not*</u> *high grade their woods. You know we really emphasize low grading ... If we do a good job of managing the forest, we're going to have this diverse habitat for other things that are harder to conserve too. [*2-4]*

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The first time I saw this country was in 1987, and as I said, you could drive everywhere and there was just no ground cover anywhere, the grass was just eaten off everywhere … From my observations, every time we get a drought … more land is better managed than what it was in the preceding drought. So the trend is up. And I mean, if the trend is positive, that's a big thing in itself. So all the problems haven't been solved, but the trend is in the right direction. [4-1]

We founded TREAT, and … we planted 30 trees somewhere, and we thought that was pretty smart, yeah. And then now, they'll go out and plant 6000 trees, in a morning, you know. I mean it's just <u>amazing</u> how it's.. you can see it changing the countryside. [5-6]

However, the impacts of these groups were not simply ecological, they were psychological as well. Thus, while the groups made strategic impacts on the landscape, participants across all cases indicated that one of the major impacts of their respective group was changing mindsets. This was in part related to education – teaching people what it meant to be a good land manager, as well as raising public awareness.

Greatest impact is probably giving a wider variety of people an understanding of making certain you plant for the right reason. [5-1]

Additionally, the groups empowered people, and thus made an impact by "capturing human capital" and "being a place for people to be passionate," as some participants noted. In GLC, for example, the landscape suffered little from ecological degradation, but was still under threat of development. The goal of the GLC was to bring value to the landscape, and thus keep the land in agricultural use and out of residential development. Thus, by empowering its membership the true impact of GLC was progress toward preservation of a lifestyle and community, which participants noted would in turn preserve the landscape itself.

Section III. Peer Exchange

"Humans have the ability to think and reason and.. and gain knowledge, not just from somebody above them. And you know, together, combining your God-given talents, you can come up with answers. And the feeling that it can only come from some higher level is what's changing. So, no you don't have to have, in my opinion, somebody that has six Ph.D's to tell you how to grow grass. They've never lived it. Where'd they get it from? Out of a book?" [3-3]

This study aimed to utilize organizational contexts to further understand what role peer exchange plays in informing the landowner community. Therefore, this section examines the nature of peer exchange as demonstrated by the study groups. First, the means by which peer exchange was built into the goals and structure of the groups is discussed. Next examined are the benefits of peer exchange in general, as expressed by participants. Additionally, the data yielded a variety of examples of peer exchange made manifest within the organizational context, and insight into the spaces within which peer exchange occurred. This section also examines the types of knowledge that peers have to offer, compared to knowledge that participants indicated that they gain through their interactions with professionals, and the value that participants attributed to each.

3.1 – Peer Exchange in the Organizations' Goals

It's a means … So, you just can't have a peer-to-peer goal. We're all going to get together and feel good and clap our hands and singing.. and, unless you're into singing, that's not going to happen. So there has to be a purpose beyond this. … And so we're getting together to create a new beef industry, we're getting together to get more money back to forest landowners. And so, you use communication networks that exist and create some new ones … So peer-to-peer learning is.. is a means. Because unless you have a higher purpose.. there's no reason to be. [*3-1]

MWM was the only case to have peer learning and interaction as an explicitly *stated* goal, and that was between the MWMs and the broader landowner community. This was the underlying purpose of the MWM Program, as recognized by both leaders and members – that MWMs would assist other landowners in identifying goals and seeking out the appropriate professional resources.

Even without that, you know, requirement of the 85 hours, you do go into this.. knowing that the program is set up to create this peer-to-peer ... kind of communication, and so ... you're inculcated with that [...] that this knowledge isn't yours to hoard, but yours to share, [1-7]

Internal peer exchange, however, was not an explicit goal of either MWM or of the other groups. However, participants stated that it happened nonetheless by virtue of how the groups were organized and implemented. As one KWC leader noted when discussing the workshops, "it creates an environment where there is a lot of peer-to-peer going on" [*2-5]. Similarly, leaders in the other cases noted that peer exchange "just happens" as a serendipitous side effect of the way the organizations were formulated, thus making it more of an unstated, internal goal of the groups, as demonstrated in the following parallel statements:

*They learn from each other big time ... we've never stated that, we've never stated that as a goal. But it certainly is something that happens. [*1-11]*

*Well you know I don't believe that it's a stated.. goal? But I think it just happens?   For instance, we do a member profile in our newsletter. And, we usually do it about someone who's pretty active ... and then when we get together at workshops there's always people talking to each other, you know "What are you doing?" and so forth…[*2-4]*

*I wouldn't say it's a <u>stated</u> goal, but it certainly happens. [*4-1]*

In GLC and DLC, leaders did see peer exchange as a primary objective, however the goal was not so much achieving peer exchange in and of itself, but using that dynamic as a means by which they accomplished their primary goals – a stronger community for GLC and the accomplishment of on-ground works for DLC. Similar ideas were present in TREAT as well. Thus, while in some ways peer exchange was a positive side effect for these groups, it was a goal in that it was their relied-upon means of inducing information and idea exchange, which could then lead to action that would benefit the community and landscape.

3.2 – Peer Exchange in Organization's Structure

*So, when we have interesting people, yes I grab them and say "Look, would you like to tell the group about this?" [*5-12]*

Because MWM was the only case to explicitly state peer-to-peer as a goal, it was the only group to have worked it explicitly into its structure, which was accomplished through the volunteer hours. These volunteer hours were used by MWMs in a variety of ways that could be considered peer exchange, such as working the State Fair booth, becoming landowner 'mentors,' and becoming trained in pest identification, which could benefit others when they performed property visits. This latter service was often spurred by the leaders, who directed landowner calls to MWMs in the area.

There were also many ways throughout the cases that opportunities for peer-to-peer interaction were indirectly built into the structure of the groups. In all of the cases, leaders acted as facilitators of peer exchange, either by referring members (or at times, outsiders) to other experienced members, or by encouraging members to share their experience with the group. This was evidenced in several forms, from simple prodding by the leader to speak up about an issue during a meeting, to asking members to teach workshops or lead field tours concerning their area of expertise.

> *… Started offering a scholarship, if folks want to attend a professional conference … [gives example] But the caveat is, that he has to teach a class on it afterwards, or give a talk about it … and write an article for the Gazette [*1-9]*

In each of the cases, there was also some format for members to lead tours on their own property, if they had something interesting to demonstrate. The value of this demonstration to both the owners and the visitors is discussed further in section 3.4.

> *And really, field days are peer learning. … Some field days involve bringing in somebody from outside, but a lot of field days are just you know, "Well we're going to Joe Bloke's place, and we're going to look at this, this, and this that he's done this year." [*4-2]*

In addition to property tours, events and opportunities for members to interact formally and informally – such as meetings, workshops, work exchange parties, seminars, and volunteer opportunities – provided spaces for peer exchange to occur. The means by which peer exchange occurred within these frameworks is discussed in section 3.5. Finally, MWM and TREAT had materials that provided an interesting contribution to

peer exchange. The MWM Program provided members with a directory of graduates in their cohort, along with their pertinent strengths. TREAT put together a "Handy Hints booklet" of member-generated tips that they sold as a fundraiser; it was quite popular!

3.3 – Member/Peer Knowledge

A lot of the members of TREAT, just come regularly, there's a lot of people with a lot of knowledge. An awful lot of knowledge, that are scientists and ... people who have been involved in ... rainforest ecology ... And you can always just you know, tap them on the shoulder and ask them anything you like, whether it be about, you know, some wildlife that you've seen, or something to do with the trees, or ... pesticides or herbicides, or anything. There's always somebody here who will have the information for you. [5-2]

As expressed in the above quote, participants described members as having a wide range of useful knowledge. Members came from a variety of backgrounds, which resulted in a membership base with a diversity of perspectives, strengths, and levels of management experience. Overall, this diversity was seen as a strength for the organization, and contributed to peer exchange among the membership.

3.3A – Diversity of Perspectives among Members

Well the thing with peer information, is that you get a slightly different picture from every single person that you speak to. [5-2]

A diverse membership structure was a key component of the foundation of the groups in this study. Most cases demonstrated a wide variety within their membership, with people from "swags of backgrounds," as a TREAT leader noted. The only truly unifying feature in TREAT, for instance, was the desire to plant trees. Membership contained a complete cross section of the community, representing a variety of political, economic, social, national, and professional backgrounds, and well as a range of age groups (though it catered more to the retired community with its Friday morning meetings). This diversity was also evident in MWM, KWC, and GLC. Diversity was less apparent in DLC, as the group had a narrow professional focus in terms of its target membership.

Some members came into the group with professional backgrounds directly related or parallel to forestry, agricultural, or other land issues. Others came from professions that were unrelated to land management, but provided valuable skills that the group could tap into, such as education. Due to this diversity in background, individual members had their own unique strengths that they brought to the group. Observant members took note of each others' strengths so that they would know who to go to with certain questions. Leaders too capitalized on their members' strengths, as discussed above.

> *They contribute in different ways. ... The best you can do is just have categories of kind of, "This is where we think you could make contributions," and let them rise to the level that they want to rise to. ... We had a retired software engineer who wrote some freeware software for cruising for other woodland owners ... And we had other people that ... started field days for kids ... You start looking at the kind of stuff that they're doing, it's amazing. [*1-11]*

Members of Grayson Landcare were especially cognizant of the abundance of strengths, expertise, professions, interests, passions, and connections available through the group. Participants stated that members had skills and background in areas such as web design, tourism, psychiatry, and permaculture. Some people were interested in forestry, others in backyard gardening. Some were involved in local government. There were landowners and non-landowners, cattle owners and community organizers. One could be a chef, restaurant owner, realtor, business owner, engineer, USDA agent, professor, or pilates instructor; if you had an interest in improving your community, you could be involved in Grayson Landcare. This diverse array of skill sets was seen as an asset because, as one participant put it, "there's nothing we can't do."

Perhaps in part due to their diversity of background, strengths, and professions, group members had a diversity of goals for their land, and perspectives and opinions on how it should be managed. For instance, in the woodland owner cases, MWM, KWC, and TREAT, some participants were focused on timber production, while others were more interested in aesthetics or wildlife. Participants also varied in their level of management intensity and engagement with their land. Even participants with similar goals had

varying approaches for how to meet those goals. In DLC, while participants did not vary in their professions, they did vary in their management techniques; participants were insistent that each property was unique, even between neighbors, and they found one-size-fits-all approaches to be impractical.

Interestingly, while results discussed in Section I indicate that homophily provided one draw of the organizations, participants across all cases viewed the eclectic mix of opinions and perspectives as a boon to their respective organizations. Participants expressed interest in hearing about these different perspectives, even if they differed from their own views. For some, differing perspectives brought new ideas, which could lead to action. Others noted that seeing a diversity of land management techniques allowed them to pick and choose what could be adapted to their own property.

> *So it's always good to have a healthy debate and listen to what people have got to offer, and what new research is coming with, so yeah. And then maybe taking that and just applying it to what you've got on your own place. [4-9]*

For the MWM Program, this diversity of goals was especially useful, because it broadened the scope of landowners that the MWMs could reach, whether those landowners' interests were timber, wildlife habitat, or some other goal.

> *I'm interested in … recruiting those MWMs in part for who we are going to be reaching and serving. More and more, you know land owners are more identifying a broader range or talking more about some other reasons to own it, including things like conservation issues. And so to have someone who is a really good, experienced land owner but really only … tends to think and articulate … the timber management, … not everyone that we deal with is comfortable with that, at least not initially.   And so having some MWM's who, you know have some real conservation approaches … I need that whole range in there so that you know they will talk to different people. [*1-4]*

3.3B – Diversity of Management Experience Among Members

> *[In reference to a MWM] …he was no more skilled than most of them in setting up a plot or anything, but he could walk into the stand and tell you about what could come out, and he could tell you about how much he wanted to thin. It's what he does for his living, and so I think that sort of thing was clearly recognized and part of the bonding experience that leads them to having some cohesiveness as they go through …   You know we really don't want just a bunch of novice*

people, there's some real experience in the group and they help each other out with that.[*1-4]

Just as there was a diversity of backgrounds and opinions in the groups, it was clear that there were diverse levels of management or other natural resource-based experience among members as well. In some cases, such as MWM, KWC, and TREAT, it was apparent that this discrepancy could be quite wide. In fact, in KWC there did not appear to be a lot of middle ground:

> *If you were to rate the membership … of the Coop, I'd say there's mostly two groups,… the very knowledgeable, and the hardly knowledgeable. [2-8]*

This diversity was reflected in the participant sample as well. Some participants were far less experienced – they were new landowners, recent migrants to the area, or simply new to managing a particular land type. Based on discussions with the leaders, and other evidence from the data, this appeared to be the audience that the groups most frequently attracted. Often they were recent retirees moving from the city to the country, and did not know where to begin with their management. These "rookies," as some participants described themselves, while inexperienced, brought fresh perspectives to the area, and were often more willing be innovators. While they came in not necessarily having a well-grounded understanding of the importance of management or what it entails, this demographic was eager to learn, and thus made an apt target audience for the group.

> *Being from Brooklyn, you know, you've got concrete, you've got a little patchy grass here and there, and once in a while way in the distance you can see a little thing and it's a tree. And that was about my experience. [1-8]*

Alternatively, some participants were longtime landowners with a wealth of knowledge and experience to bring to the group. Some, as previously mentioned, even had related professional backgrounds that made them especially valuable to the group as a resource. These more experienced members played an integral role in the learning dynamic of the group. Participants who were new to the area or who otherwise had little experience frequently stated that, especially in the early days of their tenancy or involvement with the group, they relied on more experienced members both outside and inside the context

of group events. Outside of the group, new members had more experienced members come out to their property – or vice versa – to gain direction for their own goals.

Inside the context of group events, less experienced participants sometimes relied on more experienced members to translate for them during classes or seminars from professionals. More experienced members also helped to facilitate between less experienced members and professionals, asking the questions that less experienced members needed answers to, but did not think to or did not know how to ask. Thus, the group's collective knowledge was utilized to extract the maximum potential information from the professionals, to the benefit of the group as a whole.

> *Some of the members are <u>very </u>knowledgeable about the woods. Twice, three times as much as I am. So I every time I go to a meeting, I just try to sit by a new one, so I can learn something, ask them a question or something, and you learn. ... It's great. [2-1]*

A potential difficulty with this situation is that the more experienced landowners did not always have the time or interest to be involved in the group. However, as discussed in Section I, various aspects of these groups may entice involvement, such as the social incentive, or the situations where more experienced members are given leadership responsibilities.

Finally, some participants came full circle since their inception with the group, starting out as novices, but soon learning enough to become peer teachers themselves:

> *I'd like to think that ... we went through an initial period of being on the receiving end ... of the peer learning, and then, as I say, that coupled with my fairly direct approach that I adopt of doing things ... I now think we're probably more on the giving end of the knowledge exchange rather than on the receiving end. [5-4]*

3.4 – Perceived Benefits of Peer Exchange

> *... Regardless, I think you do learn from other people. And then if you don't, well your mind is closed isn't it? ... If you don't open your ears and your eyes you'll.. you'll never go anywhere. [4-6]*

Across all cases, participants consistently cited a variety of perceived beneficial uses for peer exchange. Peers experience many of the same problems and have many of the same goals; it was therefore helpful for participants to know what had worked and what had not worked for others. Participants also appreciated being able to *see* these things on others' properties. Practical demonstration was viewed as a valuable tool in terms of learning, fostering credibility for certain practices, engendering interest, and inspiring hope. Participants also noted that peers tend to hold each other accountable, and that there was a certain amount of "peer pressure" at play in motivating action. Participants also recognized the role of peer learning in alleviating pressure on overloaded government agents and other professionals. Finally, teaching their peers sometimes served as a useful learning device for participants.

Access to the group provided participants with access to peers with a range of different experiences, as mentioned above. One beneficial function of peer exchange, therefore, was the opportunity to absorb the diverse experiences of others and use them to inform one's own decision making. When discussing the type of information that participants got from peers, they frequently described them as "little things" or "bits and pieces." However, the effects were additive, combining to form the participants' own unique holistic visions:

> *We talk to a lot of people … So, it's a combination, it's not just one source [2-11]*

> *People take information from all over the place, you know, and boil it all down. [5-2]*

Because of this, participants often had difficulty parsing out specific details that they had picked up, or the sources of their information; they just had a general sense that they collected ideas from many sources. Finally, participants valued being able to take this information and "adopt and adapt" it to their unique situation.

While participants tended to go through their own iterations of trial and error to achieve this adaptation, they noted that being able to discuss past successes, mistakes, and

problems with other landowners may help to save them from that process to some extent, if the situations are similar enough:

> *So we've been kind of learning as you go. Our place…would be a good demonstration place for people who if they're interested … to see what went wrong or what went right. [1-5]*

Thus, by pooling their experiences to problem solve, they may discover unique solutions and potentially prevent wasted time and resources on their own land. Alternatively, neighbors could provide examples of what *not* to do, if their management style was poor: "because if you don't want [your land] to look like what they do, an easy way to do it is find out what they're doing, and not do it" [4-10].

Additionally, groups provided a forum where positive and negative landowner experiences could be exchanged. Without such forums, these important insights may not have diffused as quickly, if at all, to the local community as they did because of the group forums. As one participant humorously described it:

> *You see what to do and what not to do. So I mean, if I really stuff something up, then you wouldn't want other people to do it as well, so, at the next Landcare meeting you'd say, "Now everyone, this is what I did, and don't anyone else try it, because it's absolutely shit."[4-10]*

Overall, the opportunity to learn through peer exchange what works and what does not on the landscape was a strong theme in all cases. It was especially strong in DLC, perhaps owing to the fact that all member participants were producers, and thus constantly trialing new methodologies on their property to try and find the most effective and efficient solutions.

Another value of peer exchange that was frequently expressed by participants from all cases was that of visiting other members' properties. This was important to participants for a variety of reasons. As discussed in Section I, participants appreciated the hands-on learning opportunities provided by field tours. Related to this notion was the idea that real-life demonstrations were invaluable to participants. Seeing others' properties exposed participants to new ecosystems, new challenges and considerations, and new issues and ideas that they could then compare to their own land.

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I think people really find that.. you know when you go and see somebody's place, it's so different to actually just listening and hearing and thinking about it. Seeing is great. [*5-12]

For some participants, property visits allowed them to, in a sense, see into the future – especially where other local properties were similar to theirs in goals, size, and provenance. This could provide motivation to be active managers on their own land in order to achieve the successes that they saw on other properties. As the Project Coordinator of DLC said, landowners are "jealous buggers," always comparing and thinking about how they too can achieve what another has, whether that is thicker grass or resident tree kangaroos. Alternatively, demonstration could provide a warning of what might happen if landowners are not proactive in problem solving, such as when participants saw the effects of invasive species on others' lands, as demonstrated in the following anecdote from one DLC grazier:

[referencing another Landcare member] ...he only had about 3 or 4 bushes of this Lantana, and we were over there, oh for dinner or something ... And I said to them, I said "Well you want to get on them straight away because it's pretty bad." And then when he came out for that Landcare meeting ... we went for a drive out to the hills, and I showed him how it can get away and how it ends up. And he went straight home, next day him and his boys went out and they poisoned them, because he said, "I see what you mean." [4-9]

Finally, visiting another's property was fun for participants; they enjoyed getting to experience another's land.

Sometimes, the value of property visits went both ways. In addition to providing demonstration value to others, having other landowners visit one's place helped the landowner to identify both problems and solutions and to generate ideas. Additionally, participants expressed enjoyment of sharing their land with others, and took a certain amount of pride in doing so.

I feel really lucky to be able to have people come ... the fish and watershed field trip piece was actually at our property, so we had then like all these 20-odd people traipsing around in the woods out there like, "Oh did you think about this, have you seen that?" you know I'm like "Oh-ho this is totally cool! [1-10]

As mentioned, property visits occurred in all cases, though usually on a more informal basis in GLC. While there were a few formal tours that were organized through affiliated

organizations like the Blue Ridge Forestry Cooperative, most instances of property visitation were on an individual member-to-member basis. One GLC leader participant expressed a desire to see peer property demonstration occur more frequently in the future. In TREAT, one concern expressed by a member participant over peer property visits was that in seeing another's success, one saw only the end result, and may not realize the amount of hard work that went into achieving it.

A less commonly expressed but interesting use for peer exchange that arose in the Landcare cases was the idea of peer accountability as a motivator for action. A few participants noted that landowners do not want to be seen as a failure and that this provided motivation to keep up with the rest of the group. The ongoing nature of the TREAT community provided some accountability for members who had received community planting labor on their property, as members were curious about follow-up.

> *And you need the enthusiasm from the people, and … you're charged to do more. "Oh hello, where are we planting next year?" [5-3]*

Another use for peer information that was recognized by participants from all but the DLC case was the potential to alleviate some of the pressure on professional resources, such as the DNR and extension services, that were often under-budgeted and overwhelmed due to the disproportionate number of landowners to professionals. Participants noted that grassroots organizations such as KWC, GLC, and TREAT stepped up to fill the void left by a lack of professional resources. Additionally, members themselves contributed to alleviating pressure on limited government or professional resources, both in terms of knowledge and education, and in terms of labor. This could be seen with the MWM and TREAT volunteers, who provided enough hours to functionally expand their respective affiliated agency staffs. One participant from GLC observed that peer groups could field the majority of the type of questions Extension may be overwhelmed with, whittling them down to a smaller fraction of technical questions that Extension could then address.

> *I've never had a DNR forester walk this property with me … they don't see it as their responsibility, which may be the case, or they just simply don't have the time or the funding.*

> *So that's why I say, I think that the co-op is filling that niche that maybe in the past the DNR forester used to serve, and the same with the county forester. They just don't have time. [2-9]*

A final, albeit subtly expressed, theme in some of the cases was the idea that peer teaching and peer learning were not mutually exclusive for participants. Sometimes in the act of trying to answer another's question, participants had to find the answer themselves. For example, in MWM participants expressed that the opportunities to teach and share knowledge with other landowners while filling their volunteer hours acted as a source of continuing education for them, in that it not only kept them actively involved in the issues, but it sometimes forced them to do research to find answers for other landowners. This reaffirmed their own knowledge, or provided them with wholly new information they might not otherwise have sought out.

> *Sometimes you have to research it or you have to talk to [group leader name] about it, or you know somebody brings us a diseased plant and so we have to take it in to OSU ... Like we had no idea what rust was. You know, "Oh yeah, well we have that in our field too."[1-8]*

3.5 – Evidence of Peer Exchange Occurring within the Organizations

> *We have smoko, and you know, Friday 10 o' clock, we'll stop and we'll discuss things. ... It's interesting what comes out of 10 minutes of discussion. Different ideas thrown around. [5-5]*

While the above theme demonstrates the perceived importance of peer exchange to participants, this theme explores where peer exchange occurred in practice within the organizations. Participants provided explicit examples of times that they had benefitted from the knowledge or experience of another member, or alternatively, times that they had been able to share their own knowledge and experience to the benefit of others. The means by which these peer exchanges occurred, however, were not always purposeful on the part of participants. Participants frequently were opportunistic in their acquisition of peer knowledge, taking advantage of peer interactions *in situ* by waiting for meetings or events to speak with peers, rather than actively seeking out information from these peers. Additionally, meetings, workshops, field tours, and even casual run-ins with neighbors provided unintentional learning opportunities. Another frequently cited space where this

type of learning occurred was in the informal spaces within more formal gatherings where landowners casually chatted and exchanged information. Participants also interacted with other members outside of formal events through casual conversation, informal gatherings of friends, and informal property visits.

Participants provided a variety of examples and anecdotes of learning something useful from another member, or themselves sharing what they knew. In GLC, these examples were mostly informative or technical in nature, such as information about conservation easements or addressing legacy issues. However, for the other cases, examples mostly related to various management tips. Examples include advice about invasive species control, chemical use, pasture/timber stand improvement, and the how/where/what of tree planting. A demonstration of this final example occurred during one interview with a TREAT member, when another participant entered the room and requested advice from the interviewee about selecting site-appropriate trees for planting near his house. The interviewee informed the researcher afterwards that she would be able to prepare a list of possible species for him. Those types of interactions appeared to have happened frequently at TREAT.

While some participants proactively sought out other members or contacted them with questions outside of the organizational context, this was apparently rare compared to the frequency with which participants described taking advantage of peer information *in situ* – in the context of organized events or spontaneous interactions. Participants used meetings, workshops, and field events as an opportunity to ask questions of their peers, rather than actively contacting peers outside of group events.

> *We do, at programs, where they do talk about invasive species and what not, we do interact with people there. But we usually don't.. seek out other people. [2-7]*

At other times, as seen in the examination of passive diffusion in section 2.8A, peer exchange was even less proactive than this, as participants often expressed that information tended to arise from informal conversations and/or chance meetings with

peers. Frequent formal group events provided more opportunities for such spontaneous learning situations to occur.

> *Things just crop up.   So you don't often go to a neighbor and ask them something, but you might, if you've … seen or heard of something, and you might ask them whether they've had any experience with it or knowledge of it. … But it's fairly informal really, and it's sort of.. some of the things that come out of that are just things that happen. They happen to see or happen to think about, or happen to talk about. [4-5]*

These results indicate that it is important for groups to have some structure in place for regular meetings between members, whether they are professional-led or peer-led. However, the importance of event attendance can present a barrier. In TREAT, members who were unable to attend Friday morning Work Bees felt that they likely missed out on opportunities for peer learning. Thus, while an opportunity for some, the structure of meetings as an integral place for peer exchange can be a barrier for others.

One specific means by which peer exchange occurred *in situ* was during the informal temporal spaces tucked before, during, or after the more structured or formal segments of an organized event – for example, during tea or lunch breaks, or pre/post socializing. While the topics of conversation varied during these informal exchanges, at times they were about management or other related issues. These discussion times appeared to be especially important in professional-run meetings and workshops, as they gave landowners a chance to digest and discuss what they had just heard, and talk through issues of concern or other ideas, as the following quote indicates:

> *I think peer learning happens in the question and answer … and then in the 'meeting after the meeting'. People get outside, and they get a cup of tea or a beer and they talk about, you know, "Why did he say that, that's a load of rubbish?" But then someone will "Well now, but hang on, it might be right because of <u>this</u>." I think that's all a learning process. [*4-2]*

This idea was strongest in DLC, though it was occasionally expressed by participants in the other cases as well. For some participants, these informal spaces were more enjoyable than the meetings themselves:

> *We do go to the annual meeting which is tedious, because it's so highly structured, and the parliamentary procedures, and the Roberts rules of order just drive me nuts after a while … So when I go, the good part for me is break time when I get to go and talk to people, you*

know "what're you doing, what's up with-", you know … it's the, as you say, the social networking that happens.. off the agenda, is the most valuable to me, and why I go, and I endure the rest of it in order to benefit from that [2-9]

Finally, while most examples of peer exchange happened within the context of organized group events, there were some instances of peer learning between members occurring outside of the structure of the groups themselves. For example, as mentioned in the above discussion on networking, other groups in which participants were involved provided forums for discussion with other landowners. Additionally, informal gatherings or casual communication occurred among members who were friends. This was prevalent in GLC, where participants indicated that such exchanges happened frequently between monthly meetings. Finally, while many property visits were organized by group leaders, sometimes they occurred informally among members, as was commonly seen in TREAT. Leaders indicated that they were not generally aware of such outside exchanges, but they had a sense that they occurred.

I mean I probably exchange an email on the average of once a day with another Landcare member, at least once a day regarding something. Yeah … you know something we're doing, either it be the festival, or it be the farmer's market, or it be a workshop that's available. [3-12]

3.6 – A Comparison: The Relationship with "Professionals"

Peer learning … it's all part of the educational process I think. If you were saying, "is it the best way to get information out into the world on the importance of conservation?.." well, … it would have to be high in importance. … So it's <u>part</u> of this whole process. I can't say it's better … I think it's <u>part</u> of the process of getting information out to change a people's attitudes. [5-10]

While a primary focus of this study was to identify the role of peer exchange within these organizational models, as the above quote indicates this form of information exchange is only one part of the learning process for people. For most participants, the role of professional knowledge and interaction formed an integral component of these organizations as well.

Defining the precise meaning of the word 'professional' may be cause for debate, an issue examined in section 4.1B; however, for the purpose of this study, the term 'professional' referred to persons with specialized education and a corresponding career in a field related to land management. Oftentimes, these persons were affiliated with academic or government agencies. For some cases, such as MWM, KWC, and DLC, the groups made it an explicit, primary goal to link landowners to these sorts of professionals.

> *The Landcare movement was kicked off because it was the local landholders, a couple of them saw what was happening in Southern states with groups coming together and talking. So it was a way of engaging landholders with landholders, as well as also bringing the Primary Industries and Fisheries into it, and engaging with those Extension officers. [*4-3]*

For GLC and TREAT, this was less of a primary goal, as the foci for both groups was more on community action rather than individual properties; however, professional affiliations did play a key role in the success of both of these groups as well. The following section examines the role that professionals and professional agencies played in the structure and function of the group, how participants perceived professional knowledge and information as compared to peer resources, and how all of this played into the relationships between members and professionals affiliated with the group.

3.6A – The Role of Professionals in the Organization

> *AK: So if the National Parks weren't a part of TREAT, what would that mean for TREAT as an organization?*

> *Interviewee: Oh, it would be like chopping their arm off.*

> *AK: So it wouldn't kill them, but..*

> *Interviewee: It wouldn't kill them but it would degrade it to.. to such an extent that they would have to have a major rethink of the way the organization was run ... They are both dependent on each other quite substantially. ... Oh I think it's important, I really think it is the most <u>important part</u> of that organization. [5-10]*

Professionals played a variety of roles in the study organizations. One important role was that of education, which was most evident in MWM, where the structure of the Program was centered on providing members with professionally taught course work. However, the other cases also utilized this format to some extent; KWC, GLC, and DLC all had examples of professional-led workshops, seminars, and field days. Field days in TREAT relied more on landowner-led tours, but the professionals who worked in the Nursery provided a ready source of knowledge for members. Participants appreciated the education that they received from those with expertise affiliated with the group, as well as the access to multiple professional opinions. Even in situations when professionals were not directly teaching, they were able to provide a resource to fill in gaps when members were learning from and teaching one another.

> *It was just amazing to have access to these teachers, these educators, who are really professionals in their field. Who are, you know, world-renowned ... some of them. ... The course was just fantastic in that regard ... you are getting the latest research and the latest theory. [1-7]*

Another role of the professional community from the perspective of the groups was leadership, as leaders were sometimes provided or hired by an academic or government agency. Oregon State University Extension ran all of the MWM programs with its own agents, and while the DLC Project Coordinator was not himself a Queensland Primary Industry and Fisheries Extension agent, his position was run through that Department. In KWC, the Coordinator's position was funded by a university-run grant, and the Coordinator himself was a professional, though a contracted one. In some cases, professionals were involved in the leadership via volunteering, such as in GLC and DLC, which both had Extension agents on the Board.

Professionals or professional agencies provided various types of support for the groups as well. The Australian government provided financial support for DLC landowner projects, and as mentioned, several other groups had coordinator positions that were funded through universities or government. The KWC provided professional support to members in the form of services, helping members to plan and implement management

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goals. In this regard, KWC also helped members to network with professionals, as the Coordinator was unable to handle all services individually. This networking with external professionals was also seen in GLC and DLC, where the groups provided access to professionals that were affiliated with the group, or were available to come to meetings or events upon request.

The Queensland Parks and Wildlife Service provided support to TREAT in the form of a meeting and work space, by allowing them to utilize the Nursery facilities. As indicated in the opening quote, this relationship was seen as a crucial to the success of TREAT. The relationship with the Service was two-way, however, as the Service benefitted from the volunteer labor provided by TREAT. One member referred to this as a "symbiotic relationship," as was also reflected in the following quote by a TREAT leader:

> *TREAT could not really exist like it is without the Nursery ... Because when it first started up, they found that raising the trees in their own backyards was not really successful. You needed a central location. ... And Parks needs TREAT to come there to do that huge amount of Nursery work every Friday ... we're equivalent to 1 and a half staff, 2 staff, ... And they just wouldn't be allowed to have that many staff just to grow trees to plant on parks. [*5-12]*

3.6B – 'Peer vs. Pro': Comparisons of Lay and Professional Knowledge

> *Yeah, well see, like you said about the professionals, well I seem to think we're professionals too? Like ... I might talk to a bloke who's ... been on the land for say 50 or 60 years, and ... in my way of looking at- he's a professional, because he's had the on-ground experience. ... Whatever the subject's about, ... it might have crossed his path or happened to him 10 or 20 years ago or something, and he, "Oh I remember that happened," you know "and this is what we did." And.. or "we didn't find what happened to it, so we went to the DPI, or went to the vet, or spoke to a chemical company or something." ... I'd probably go straight to another producer first ... You know probably 80-90% percent first, I'd go to another producer. [4-8]*

The above quote provides consideration when defining the term "professional" – is it a four-plus year degree in forestry or agricultural science, or 50 years of practical application on the land? Throughout the cases, both types of knowledge were valued by participants, to varying degrees for either type, depending upon the individual. This

section demonstrates perceptions of professional and peer-based knowledge, areas of tension between the two, and appropriate uses for each, as viewed by the participants.

While use of professional knowledge varied between cases and participants, participants generally expressed a high degree of respect for the professional sources of knowledge to which they had access, with some of them relying exclusively on professionals to assist with important decisions. Participants perceived professional resources to be useful for matters such as research, legal guidance, financial advice, funding, and in some cases, management advice and property inspection. However, the management category was augmented by peer information for some. As mentioned previously, peer information was frequently expresses as useful for quotidian matters and for gaining broader perspective on management issues. Peer knowledge was also relied upon as a reference – rather than a resource in itself – toward trustworthy professional resources. In MWM, Master Woodland Managers directed other landowners toward Extension and State resources. Along these same lines, peers were relied upon for candid perspectives on which professionals to utilize, as other professionals in the field may be constrained from making these assessments.

> *The DNR forester, they have to be.. sort of a-political ... Where as the landowners ... they can say they had a good experience with somebody and they would recommend them and with no qualifications or "I would never use that guy again in ... a hundred years." [2-11]*

The types of resources participants tended to utilize – 'peer' or 'pro' – often depended on the question itself. For groups such as TREAT, participants knew their network well enough to be able to identify the people best suited to particular questions.

> *It all depends on what the question is. You know if I want to know what particular bird I saw ... I would ask [member name], because [he]'s a wildlife expert. If I want to know about a tree that's fruiting ... or something like that, I'd probably ask [Nursery staff members]. So it depends on what I'm asking about. [5-2]*

Across all cases, participants would often rely on one of the group leaders, whether they were a 'peer' or 'pro'. Additionally, participants utilized professional sources when they had a *specific* question and desired a direct answer; whereas peer information was more

useful for sharing ideas and general management items that arose during casual conversation.

While some participants strongly leaned toward one or the other, many used a mix of peer and professional-based information, with no distinct preference. Within the context of the groups, the two sources worked together. Participants noted that often for small issues, members could work out the answer among themselves; if not, the professionals were there to ensure accuracy. In TREAT, this was described by one leader as "a multiple level interaction of knowledge" [*5-9]. A conversation will start at the potting bench among members, who can often address questions themselves; if not, the questions work their way up the hierarchy until an answer is found.

While peer and professional-based information played complementary roles within the groups and in filling participants' information needs, some degree of tension between the two sources also existed. In MWM, Oregon State University Extension was careful to inform MWMs about what was and what was not acceptable during their interactions with other landowners, cautioning them not to give legal advice, recommend herbicide treatments, mark timber, or perform services otherwise better-suited to professionals. It was also important to the Program that MWM knowledge was anchored in science, and not overwhelmed by anecdotal story-swapping among members. Other concerns voiced about peer information were that it might be incorrect, or that information may differ among peers. Additionally, one participant noted that woodland owners often have a narrow perspective or range of experiences on issues such as harvesting, and may have a skewed viewpoint; whereas a professional has a larger sample size, and can give a more realistic perspective on what constitutes a good or bad harvest.

> *Peer to peer on its own without a support of some kind, whether of actual scientific knowledge, but also some sort of organization that people can sort of connect to, it's very difficult for that not only to happen, but also to actually be worthwhile. … Peer to peer needs good information. Because otherwise you get all these sort of myths…[5-5]*

However, concerns were voiced about professional knowledge as well. Some participants noted that research can be driven by top-down interests or perceptions, rather than being instigated by needs from landowners. Additionally, even highly educated professionals sometimes lack the on-ground experience to make them credible in the eyes of landowners. One leader from DLC noted that it is easy to run into strife with producers when…

> *You get a Graduate student that thinks they're going to be the gun Landcare King or Queen, and they just turn out to be.. the gun town person that doesn't have a clue about [what] they're trying to do or achieve. [*4-3]*

Participants felt that landowners had intimate knowledge of their property, gained from years of working it themselves. Consequently, they felt that advice from 'professionals' with little or no practical experience, may not be – to say the least – well-received by landowners:

> *If <u>you</u> yourself come out of university with a 5-star degree, say, and then you … go immediately and start telling some old fellow who's got 50 years experience running cattle what to do, you know the first thing he's going to do, he's going to <u>chase</u> you, and he's going to say "Get out of my sight!" Well, and that's a bit what the DPI, I reckon, is missing? You know … they're <u>trying</u> to do the right thing, but I just don't think they're getting it … And it's going to be very difficult to change because our society wants university educated people now when they come out … there's very little on-the-job training. [4-6]*

The above quote not only summarizes a common, though subtle, tension perceived in the cases, but also a delineation by participants between professional and peer knowledge – the notion of "technical" versus "practical" information. Participants frequently employed this terminology to describe the type of information they sought from professionals and peers, respectively. As mentioned above, professionals were seen as necessary for providing the technical details associated with management – legal/financial advice, paperwork, ecological knowledge, and other specialized insight and information. Peers, however, were often cited as a good source for practical information – the experiential knowledge gleaned from years of lived, on-the-ground management. As one participant noted, "I don't have a degree in forestry, I just have experience in forestry" [1-6]. Peers could substantiate words with real examples from their own experiences and properties, which was viewed as far more useful than simply

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reading about something. Participants saw the technical or theoretical information from professional sources as only being truly useful once it had been tested for practicality on the ground in the local community.

> *I think information's good to get ... but the only question I would say to it, "Has it been tried and tested practically?" I work with my hands, so I like to know something ... if it's gonna' work practically. [4-11]*

Even two of the leaders from GLC, both government agents, noted the disparity of practical application amongst agencies. Thus, participants expressed that they used professional sources when they needed specific information, but were more inclined to turn to peers when they wanted to try something on their land: "the kind of real practical 'nitty gritty' stuff I pick up from folks that are doing it, that are members, and are trying things." [2-9]

The groups provided both of the types of information, technical and practical, that were described by participants as important to fulfilling information needs. Technical information was available through courses, workshops, and seminars led by professional speakers, and directly through professionals who are affiliated with the group. Practical knowledge was available through fellow members' experiences.

> *Well, I think there is maybe two categories, there is the formal values, such as presale and management of a timber sale ... the formal workshops, such as the workshop on chainsaw safety, the workshop, at the log mill ... Then on the informal side is, just the personal contacts, the buttonholing people at a meeting, and talking over, you know, "What do you do for this problem, how do you handle that problem?" Yeah, so that's two sides, the formal and the informal. [2-9]*

3.6C – Peer Groups as 'The Great Equalizer'

> *A lot of people I know have a big hang-up with the departments, and say you know, "They think they know everything, and you know none of them have actually owned a property" so, "and they're always trying to tell you how to run your property" ... I think if it was just them going out to a property, trying to get you to change things, it probably wouldn't work. Whereas, at a Landcare group, when it's them just talking to a group of people that could then discuss it between themselves, you know what I mean? Without just one-on-one with the department? Yeah, and I think it probably.. make a bit more of a difference, yeah. [4-10]*

Relating to the idea of credibility discussed in section 1.2, while participants may have been skeptical of government or other professional sources broadly, for the most part they had nothing but praise for the *specific* professional agents associated with the group. While only a subtle theme in the study, it was interesting to note how little participants distinguished between leaders or other closely affiliated professionals and the rest of the group, at least in terms of comfort. The informal structure of the groups diminished notions of hierarchy. Professional leaders often formed close, sometimes even personal relationships with the more involved members. Additionally, the groups helped facilitate relationships with other non-leader professionals who were affiliated with the group. One participant in DLC mentioned specifically that she felt less shy about approaching DPI agents that had contact with the group, once she had been acquainted with them through Landcare. In TREAT, participants appeared to be equally comfortable with TREAT members/leaders and the Queensland Parks and Wildlife Service staff. While it was recognized that the staff was separate from TREAT, some staff members usually attended the meetings, and the members knew them well.

> *Not only getting to know each other, but they get tied-in to the University, I think that they feel more comfortable getting to know, the faculty , and people on the College of Forestry? And the Agency, and they.. they're just more tapped in, and it's not so hierarchical. [*1-9]*

Groups' thus offered an opportunity for agencies to connect with the groups' landowner communities, thus yielding agent access where it may previously not have been feasible.

Discussion and Conclusions

Summary of Key Findings

The data discussed in the previous section yielded a variety of insights into how the form and function of the study groups influenced not only peer exchange, but participants' overall access to ideas, knowledge, and other resources and their involvement in landowning issues. Additionally, the data provides insight into participants' perceptions regarding various forms of knowledge and learning. The following section summarizes the key findings from each of the major thematic categories that were explored in the results section.

Through assets such as credibility, a comfortable group environment, satisfaction of multiple landowner needs, and strong leadership, the groups fostered an atmosphere that was both appealing to participants and conducive to community-building and information flow. Information flow was also facilitated by groups' strong networking abilities, which provided participants access to local knowledge and resources. These resources, in combination with opportunities for hands-on learning and skill development, influenced participants in a variety of ways. Group involvement facilitated the development and achievement of goals, increased participants' knowledge and confidence as landowners, and generally functioned to increase awareness of and involvement in the management paradigm – i.e. the ideas, behaviors, and general lifestyle related to management of one's land. Further, the data yielded evidence that group influence diffused beyond the group itself, impacting both the broader community and the landscape. Finally, the results indicate peer exchange as a key product of the groups that was facilitated by diverse knowledge and experience among members. Participants perceived a variety of benefits of peer knowledge, and the data elicited evidence on how peer knowledge was exchanged within the context of the groups. Finally, it was evident that professional or 'expert' knowledge worked in collaboration with peer knowledge within the group to satisfy participants' information needs.

1. Atmosphere: group form, and the influence on participation and learning

1.1 Creation of an environment that was conducive to participation and learning

The groups fostered a comfortable environment that was attractive to participants, and within which learning could take place. One means by which groups achieved this was through cultivating reputations of credibility. While not an overwhelming sentiment, some participants expressed a certain degree of mistrust for government and other professionals, or at least disinclination toward utilizing these resources. The groups provided an alternative to these sources by facilitating access to expert information that was perceived as trustworthy, friendly, and unbiased. Well-established groups such as MWM, DLC, and TREAT achieved these credible reputations in part through their longevity and provision of consistently reliable information over the years. Additionally, the groups recognized a variety of perspectives on nature, from the economically-oriented, to ecologically or emotionally/spiritually-oriented perspectives toward the land. While groups affiliated with the idea of 'sustainability,' they further built credibility by avoiding other 'environmental' labels that were perceived as negative or alienating by producers.

Secondly, participants' repeated identification of access to "like-minded" individuals through group involvement indicates the ability of these groups to create an environment rich in what Rogers (1995) calls "homophily," which he defines as "the degree to which two or more individuals who interact are similar in certain attributes, such as beliefs, education, social status, and the like" (p. 19). Rogers states that greater homophily between individuals leads to more effective communication. Indeed, participants valued having a 'safe space' where sustainable land management ideas could be discussed freely in a comfortable, friendly setting of other interested people, without fear of stigmatization. This idea was most prevalent in the Landcare cases. Corresponding to this, it has been noted that the widespread awareness and acceptance of Landcare in

Australia has led to a greater acceptance of sustainable farming practices as a community "norm", instead of an "aberration" (Cary & Webb 2000, p. 20).

Rogers also notes, however, that opportunities for diffusion of an innovation often entail a substantial degree of heterophily, which while necessary to the exchange of new knowledge, can complicate communication because those involved in the exchange do not use the same "language" (Rogers 1995, p. 19). Interestingly, while participants in this study clearly valued homophily, the wide diversity of perspectives present in the group's community was also seen as a benefit. This diversity not only ensured acceptance of one's own perspective and skills, but also greater potential for a range of quality information and strengths, which is discussed further in section 3. Consequently, the groups in this study provided the comfort of a homophilous setting while still providing an appropriate degree of heterophily to encourage the exchange of new information.

In addition to a like-minded community, the non-hierarchical nature of the groups – that is, the informal relationships between members and leaders, and the encouragement of member participation – appeared to contribute to the comfortable atmosphere. The emphasis on equality of ideas was especially strong for Grayson Landcare, which made no explicit distinction between professional and lay persons in the group, in terms of the value of individual contributions. In no case, however, did participants appear to firmly delineate between experts and lay persons affiliated with the group in terms of approachability, an observation that is also expanded on in section 3. The lack of rigid formality contributed to this; while groups did sometimes hold formalized meetings and lectures, they were often held in a casual setting.

A final key contribution to the attractiveness of these learning environments was the energy created from within them. Group time allowed for ideas and energy to be pooled in one place, creating a "forum to dream," as one GLC participant described it. This energy could in turn be funneled through members, in the form of new or improved ideas,

leading to self-empowerment and action. The social capital created within these settings bears potential for implications on the landscape. Examples from the groups include creation of on-ground projects such as Grayson Natural Foods in GLC and group tree plantings in TREAT.

The combination of these elements of credibility, homophily, inclusiveness, equality, familiarity, and empowerment together provided an environment that was attractive to landowners and conducive to learning. Within this structure, learning took place from peers as well as from professionals affiliated with the group. Cheng and Mattor (2010) found similar results in their study of forest landscape working groups (LWGs), which "created an environment in which participants were comfortable sharing and learning about values, meanings, issues, and desired conditions for places in the forest" (p. 385).

1.2 Contribution to building a community of landowners

The groups created a community of landowners that provided a key resource for individual landowners and an important contribution to building the landowner community as a whole. In this context, "community" describes a group of like-minded individuals who are bound by shared experiences, perspectives, and knowledge. Community within groups was fostered by connecting neighbors, building rapport amongst them, and enabling a more uniform knowledge base among members, which facilitated the exchange of ideas. This community provided an ongoing resource that members could tap into on an as-needs basis, which served as an alternative to the one-time use of professionals that some participants had experienced.

Access to the community also allowed participants to experience a sense of solidarity among landowners. In addition to providing validation for ideas and actions, the groups often provided a unified voice for the local landowner community, functioning as a liaison between landowners and the government, timber industry, and public. This role of the groups as champions for small private landowner rights and for greater public

awareness of landowner realities demonstrates a way of gaining greater representation of landowner issues on the public agenda.

Internal community was observed to be strongest for the groups with frequent, consistent meetings for members, as seen for GLC, DLC, and TREAT, and weaker for groups that lacked this structure. While the KWC offered regular community workshops, there were no regular meetings (other than the Annual Meeting) for members exclusively, and this group exhibited the weakest expression of community by the participants. Participants in MWM indicated strong community formation by the end of the program, but views differed on how strong this community remained after the regular gatherings for the courses were complete. These results indicate consistent, frequent gatherings for members as key to establishment of intra-group community.

Additionally, external community building was observable in cases where crossover with other landowner groups was common, such as MWM, KWC, and GLC. Participants were not always able to distinguish between these different groups, indicating that the individual study groups formed only one part of the collective whole in terms of the landowner's information network.

The Landcare groups warrant special consideration when discussing external community, as the broader Landcare community has reached an international scale. As one GLC participant noted when discussing a visiting Australian Landcare speaker, "we're miles and miles apart, but really not that different in a lot of ways" [3-4]. In Australia, the group is widely recognized, and consequently new landowners to a region know to look for Landcare groups. According to Robertson et al. (2007), the name itself resonates with people across a broad spectrum of interests. Landcare Australia provides a model of how a grassroots initiative, partnered with government, can establish a widely recognized movement within the landowning and broader community. While the initiative is still in its early stages of germination in the United States, its success as an established "brand," as one DLC leader called it, in Australia warrants it consideration for a nationwide U.S

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initiative. Such an initiative may have great potential for reaching into the private U.S. landowner community on the local scale, but will require strong backing from government, as seen in Australia.

1.3 Satisfaction of multiple needs

In addition to providing access to information, participants expressed a variety of other needs that were fulfilled through involvement with the group, including social and emotional needs. Many participants expressed the importance of the social benefits of the group, such as the opportunity to meet new friends. This aspect of involvement was especially useful to participants who had joined the group shortly after moving to the area. However, both recent and long term residents expressed interest in the opportunity to catch up with friends and neighbors at events, and some appreciated the informal opportunities to do so more than the formal aspects of events. The social/leisure element of the groups acted in some cases as an incentive for participants to become involved. Additionally, the social relationships formed within groups led to opportunities for peer exchange outside of the formal group context, such as informal proper visits between friends.

The groups also provided opportunities for participants to volunteer their time, or share their knowledge, experiences, and accomplishments with others. This provided emotional satisfaction for participants, because it allowed them a chance to "give back" to their communities and the environment, and to feel a sense of well-being and pride for their achievements. Additionally, for groups that contained a central volunteering component, such as MWM and TREAT, participants received valuable knowledge and practical experience through their volunteer efforts. Thus, in addition to providing emotional satisfaction, the volunteer component functioned as an important mechanism for encouraging learning and skill development, while helping to further the reach of the organization.

Additionally, participants expressed feelings of ownership in their group, along with a sense of obligation and reciprocity when it came to contributing to and receiving ideas and resources from the group. Although not all groups had a formal 'membership structure,' by providing the opportunity for affiliation groups could act as a lens or filter through which members perceived information and management ideas. These results indicate that feelings of ownership provided emotional investment, and may have encouraged involvement and increased the perceived value of what was received through the group.

In summary, these results indicate that these groups were able to expand their target audience by catering to a variety of diverse needs of landowners, beyond simply providing information. By offering opportunities for members to socialize, volunteer, share their strengths, and feel ownership, the groups fostered a well-rounded community group atmosphere that encouraged involvement. The importance of satisfying multiple needs is evident in this quote by one DLC participant:

> *Our Landcare meetings, you'd get there, and you'd have a bit of smoko to start ... a drink of tea or something. Then you'd have your meeting, have your dinner, your lunch, and then you'd go around and have a look at the place. And that's what you look forward to – having a few beers, and driving around, and just looking at his cattle, and looking at his works ... So, you sort of covered ... the broad base of the whole lot. So over one day, you'd covered your cattle, your commodities, you know you're just catching up with neighbors, Landcare stuff, your environmental stuff, all in one day. [4-8]*

Similar findings exist in the literature; a study by Van Den Berg et al. (2009) found that in addition to the desire to learn, adults were motivated to become involved in conservation education programs by drivers such as social benefits and the opportunity to participate in meaningful volunteer work. The implications of these findings for practitioners who are seeking an organizational structure that will encourage landowner involvement are discussed further on.

1.4 Importance of strong leadership in facilitation of peer exchange and group maintenance

The group leaders played an integral role in the success of the groups across all cases. Leaders functioned as central hubs of information, a finding that is supported by a recent study by Rickenbach (2009). The study looked specifically at connections within the KWC, and found that strong ties existed between members and the KWC staff, while weaker ties existed between the members themselves. However, our study indicates that the group leaders utilized these central positions to facilitate connections and communication within and outside of the group. Leaders were also important to maintaining group function and longevity; catalyzing action, organizing events, meetings, workshops, and taking care of "behind the scenes" tasks for which members had neither the time nor the interest. Overall, these functions of the leadership were crucial to maintaining groups that were reliable and active, which further contributed to their appealing atmosphere.

The leaders in this study were often uniquely well-suited to their roles, having a combination of experience in the community and expert knowledge. While some groups were able to have hired leaders, others were fortunate to have strong, dedicated volunteers. While those groups were fortunate to have such committed volunteers, it was clear that the ability to hire a Coordinator or staff member – usually with grant funding – was key to the success of the groups that had them. Previous research also suggests that facilitation for Landcare groups in Australia is crucial for the survival of the individual groups (Ewing 2005, in Cary & Webb 2000). Finding such well-suited leaders consistently may prove challenging for these groups in the future, as well as for new groups at their outset. However, having available funding to hire a coordinator may increase options. This is an important point for funding institutions such as federal government, state agencies, universities, and non-governmental organizations to consider, as strong leadership was clearly pivotal to the success of these groups.

Members also filled important leadership roles, whether as Board members, guest lecturers, field day leaders, or simply as dedicated members of the group's community. Some groups actively targeted these peer leaders, pulling experienced landowners or natural leaders from the peer community into leadership positions. This was one means by which groups encouraged involvement of knowledgeable, talented, influential members of the landowner community. Thus, the groups provided a venue for peer leaders to express their strengths, which both provided a resource for other members and contributed to the long term success of the groups. Peer leadership was also found to be important in a study of peer learning in the senior community, which observed peer leadership substituting for group leadership at times when facilitation was weak (Clark et al. 1997).

2. Information flow: group function, and the influence of information access

2.1 Facilitating networking and strengthening local networks

The results of this study provide several key insights surrounding the provision of information access through the groups. The first of these insights explores *how* the groups provided access to information and other resources, which was largely through their strong internal and external networking capabilities. Participants noted that involvement with the group had allowed them to expand their personal networks, connecting them with peers and professionals to which they may have had previous access, but they were unaware of or unmotivated to act on such access. In this way, as opposed to necessarily creating new information sources, groups utilized communication channels such as meetings and workshops, e-mail, and newsletters to facilitate access to pre-existing information sources. In addition to providing access to information, group meetings and events provided a forum for landowners to share peer information that otherwise might not have made it off of the individual farm or woodlot.

Involvement with the groups' internal networks provided access to a variety of resources, including information, people, labor, funding or information about funding, educational opportunities and materials, and other miscellaneous land management resources. Participants expressed that access to these resources was both comforting and useful, as they knew "who to call" with their own questions or when directing other landowners. For some, this ease of access to information was more valuable than the various facts that they picked up directly through the group.

The groups' networks expanded beyond the groups themselves. Groups had external connections with various universities, government agencies, and other research facilities and professionals; thus if group leaders were unable to address member questions, they often could find answers or connect members with the appropriate resource. These results support the findings of Nagubadi et al. (1996), which indicated the importance of forestry organizations in raising landowner awareness of the benefits of forestry assistance programs. From a transferability perspective, these results indicate potential for similar groups to provide greater information access for landowners.

External networking ability was also apparent when participants discussed bringing new people into the group from other networks with which they were affiliated, or conversely, bringing information out to these other networks. Likewise, leaders at times connected outsiders to members for assistance and property visits. Finally, as previously mentioned, external networking occurred between the study groups and other local community groups.

The study groups thus demonstrated a balance of what the social capital literature refers to as "bonding" and "bridging" links, the former of which ensures strong trust bonds within the group, and the latter of which promotes innovation and diffusion by creating connections with those outside the group; both are necessary for a resilient network (Newman & Dale 2005; Ohno et al. 2010). Additionally, these results align with similar recommendations from a study of catchment management groups in Queensland, which

encouraged catchment coordinators to network with similar groups (Oliver 2001). Results thus indicate the role of these groups in connecting members of the broader landowner community with important resources – not the least of which included one another, the usefulness of which was seen in section 1.2, and is discussed further in section 3.

2.2 Access to local information and experiential learning opportunities

The second key insight pertaining to information access and flow explores *what* type of resource access the groups provided. The results illuminate attributes of the groups' information that participants valued, and that in some cases set the groups apart from other resource options. These attributes included a purposeful focus on local issues and information, and the provision of 'hands-on' experiential learning opportunities.

Whereas participants had complaints over State programs being too broad or irrelevant to local needs, a strongly expressed benefit of the study groups was their focus on providing information and addressing issues that were appropriate to the local environment and community. Newer residents had access to local people with local knowledge about the surrounding environment, climate, and landscape – a crucial resource for these landowners, especially if they had recently moved to an unfamiliar ecosystem. Groups such as KWC, DLC, and TREAT tailored their education and research to the immediately local ecosystem: the Driftless Area of Wisconsin, the Burdekin Rangelands of Queensland's dry tropics, and the Mabi and Hypsie rainforest types of Queensland's wet tropics, respectively. Some cases displayed even finer-grained localization through the existence of sub-groups within the main group. Examples include KWC's Work Party and DLC's local Landcare groups, both of which addressed neighboring area-specific projects, such as invasive species control.

The Landcare model provided a particularly interesting example of how groups can be localized to the needs of the area and community. DLC and TREAT demonstrated how the model could be fitted to rural or urban, rangeland or forest, and productive or restored

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landscapes. The GLC took an internationally successful model and utilized it in a local, community-centered approach to achieving the "triple bottom line" in the United States that sought to obtain economic, social, and environmental sustainability in communities.

In addition to local area knowledge, participants had access to personalized advice and information. Many participants had invited group leaders or knowledgeable members out to their properties to provide management planning advice. Additionally, diverse educational opportunities allowed participants to choose those that were most applicable to their situations. This combination of local area information and personalized focus was unique for some cases, with participants expressing that they had not found this type of information access through other resource options.

Another valued form of knowledge that was available through the groups was that gained through 'hands-on learning' opportunities, or learning by doing. While some participants expressed boredom or impatience with "proper meeting meetings," they enjoyed meeting formats such as field days, property visits, and interactive workshops. Hands-on learning coupled with demonstration was immensely valued by the study participants, and for some was more conducive to their learning than classroom-style learning. However, participants also mentioned the benefit of pairing practical application with what they learned in the classroom or lecture.

This hands-on style of learning can be viewed as a means of facilitating experiential learning, a theory of learning described by Kolb (1984) that focuses on learning as a "process," as opposed to an "outcome." In experiential learning theory, knowledge is dynamic and is created through learner interaction with the environment, as opposed to the one-way transmission of static knowledge common to traditional educational methods (Kolb 1984). Hands-on learning opportunities as demonstrated by the study groups allowed landowners to create knowledge through intimate interaction with the study environment, rather than relying solely on transmission of information by an expert. As with the focus on local knowledge and information, access to hands-on experiences was a

unique feature of the study groups for some participants and immensely valuable to their learning experiences.

2.3 Influence of information access on the participants, broader landowner community, and landscape

The final insight surrounding this theme explores *why* information access through these groups mattered; in other words, the results illuminate the influence that information access had on the participants, and the resulting impact on the broader landowning community and local landscape.

It should first be noted that *direct* influence on behavior change on participants' lands was difficult to assess for some of the cases, as participants sometimes had difficulty thinking of specific changes made as a direct result of the group, or they spoke of *potential* changes they would like to make in the future. However, for those who did mention behavior change, it was often framed as refinement of pre-existing ideas, or facilitation of accomplishing pre-existing goals.

One means by which groups influenced behavior was through economic incentive, such as offering free speakers and courses, free trees or other materials, information on how to obtain funding, or in the case of DLC, actual funding for projects. It seems no coincidence that DLC, the group with the most frequently noted behavioral changes, was also the only group to have consistent flows of government grant money specifically for projects. Cary and Webb (2000) cite such external funding as a necessary element to the future continued success of community landcare in Australia. It is also important to note that DLC participants who had received funding noted that it did not change their goals, but rather accelerated the rate at which they were able to achieve them. In other words, funding helped to turn desires or ideas into action that produced concrete, on-the-ground results. One concern over incentive programs that is expressed in the woodland owner literature is the issue of funding landowners who would have performed the desired actions anyway, though it has also been found that funding allows landowners to do *more*

on their land that they might have otherwise accomplished (Kilgore et al. 2007). Similarly, results from the DLC case indicate that funding functioned to catalyze action that, however well-intended, may have only gradually, if ever, left the conceptual phase.

However, while *stated* behavior change on individual properties was variable among cases, groups consistently influenced participants in ways that *underlay potential* behavioral change. One such example was the influence of group involvement on participants' awareness of and involvement in various aspects of land management. Participant language concerning the effect of group involvement on their thought processes – using words such as "eye-opener," "enormous…universe of information," and "wholeness to a vision" – indicated that the groups opened them up to information and ways of thinking of which they were never previously cognizant. Additionally, involvement in the group helped to keep management issues present in participants' lives by serving as a constant reminder of what landowners should be doing, and a warning about the potential negative consequences of being too passive. Thus, in bringing available information to the attention of landowners, the groups aided in keeping management issues on the "front burner" of their minds, as was noted.

Tying in with the idea of increased awareness, involvement in the group catalyzed greater involvement for some in the landowning community or in management in general. Once participants became more aware of the resources available to them, they were more apt to use these resources. Additionally, participants expressed greater excitement for their land and for management as a result of involvement. At times, members became involved in leadership roles or other landowner groups after initial involvement with the study group.

Additionally, this increased awareness and involvement led to increased knowledge for participants, concerning both broad-scale management issues and their own specific property needs. Consequently, participants reported greater confidence to discuss land management issues with others – including family and partners – and were more encouraged to perform management activities themselves, such as tree thinning and

growing. This confidence came not only from increased knowledge, however, but also from the solidarity derived from seeing successes on other properties. These results, in combination with the desire for hands-on learning opportunities, point to the importance of frequent field opportunities.

This increased interest and involvement can be seen as a key product of these groups as well. Thus, while behavior change was difficult to ascertain in this study, these other products – newfound awareness, shifts in perception, increased involvement in the landowner community, increased confidence – captured landowner energy as well, and could also lead to behavior change. Similar conclusions are reached by Cary and Webb (2000) in their study of community landcare groups, in which they postulate that, "Membership of community landcare is likely to have a much stronger influence on behaviour over a longer time frame by being a vehicle for the reinforcement and social transmission of norms for more appropriate environmental behaviour" (p. 22).

Finally, group influence diffused beyond the membership, both passively and actively, resulting in impact on the broader community and landscape. A mix of both active and passive approaches were used to encourage new membership and to reach the broader landowner community, ranging from actively soliciting potential members via phone or newspaper ad, to passive reliance on 'word of mouth' to spread information. In terms of passive diffusion, participants were sometimes sought out by neighbors based on their heightened profiles as group members, or on their visibly beneficial land practices; other times spontaneous conversations between members and neighbors facilitated passive diffusion. Alternatively, some participants were more active in their soliciting of friends and neighbors, or they acted as conduits of information among other groups in which they were involved. While it appeared that well-established groups could rely on their reputation and word-of-mouth to advertise the work of the group, the most successful groups in terms of growth actively targeted landowner audiences in some ways as well, as demonstrated by the proactive approach of KWC, whose membership reportedly had

grown every year. GLC was neither a very old nor a very proactive group in terms of soliciting the group itself, which may be why they had difficulty generating new interest.

Thus, it was clear from this study that information flow was not bounded to the groups alone. In discussing Landcare groups specifically, Cary and Webb (2000) indicate this diffusion as one of the great values of community landcare:

> *...social capital enhanced through community landcare does not stop at the boundaries of formalised community landcare groups, indeed one of the benefits of community landcare is the manner in which it extends and facilitates the broader dissemination of information through broader community networks. (p. 19)*

In terms of the influence of groups on the landscape, the majority feeling among participants was that the groups were making a positive impact. No primary data were collected for this study on land impact of the organizations, but groups reported various metrics through which they had measured successful impact on the land. Such impacts were particularly observed for the Australian cases, in part because the groups were established decades ago, as well as because both groups had on-the-ground project oriented goals. However, broader impact of the groups was not constrained to physical impacts alone in perceptions of participants; psychological impact on the awareness and knowledge level of the community – both the landowner community and the general local community – was also seen by participants as an impact of the groups. Groups provided a place for "capturing human capital" that was believed to lead to positive change.

However, practitioners would do well to note that a variety of themes arose throughout the study related to the social rules, norms, and personalities of the community that would indicate potential social and organizational barriers to the diffusion of group information. For instance, participants strongly resisted the idea of being a "pushy neighbor," as expressed. While leaders took some liberty in proactively soliciting the activities of the organization, members were strongly opposed to "pushing" their ideas on others, if they felt there was any amount of resistance. It was noted, however, that peer learning could

offer a means of combating this social barrier as it is a less 'pushy' means of sharing information, in that it provides an alternative to more forceful top-down professional approaches. Another difficulty when assessing diffusion was that participants frequently had no follow-up with landowners after providing them with information. However, while this presents a barrier to understanding the effectiveness of diffused ideas, it might not present a true barrier to diffusion itself. Finally, the "independent" nature of landowners was observed as a general challenge to reaching out to this community, as not all of them are willing to attend formal meetings, or they are turned off by solicitation of management ideas toward them. Again, these findings emphasize the need for practical, field-based meetings with a casual atmosphere as a means of attempting to address these barriers.

3. Peer exchange: influence of peer knowledge on the value of groups as a tool for landowners

3.1 Peer exchange as a key product and tool, rather than an explicit goal

Peer exchange provided the overlaying context for this study, contributing to both the form of the groups in terms of the atmosphere created, and to the function of groups by playing a key role in information flow. However, for the most part intra-group peer exchange – that is, peer exchange among the members as opposed to the members and the broader landowner community – was not an *explicit* goal of the groups. Alternatively, it was viewed by participants as a natural consequence of the way that the groups functioned, and was seen as a beneficial and useful product. Some groups, notably GLC and DLC, viewed intra-group peer exchange as a *means* of facilitating and achieving their stated goals of on-the-ground action, rather than a specific goal in itself.

However, consciously or not, all groups had mechanisms in place that promoted intra-group peer exchange. The leadership of the groups facilitated peer exchange in a variety of ways, such as encouraging member sharing within group discussion, and asking

members with specialty knowledge to give talks or lead workshops. Additionally, all groups had examples of peer-led property tours or field days. Group events such as meetings, workshops, work exchange parties, seminars, and volunteer opportunities provided opportunities for peer to gather, the importance of which will be discussed below. Finally, some groups had peer-based materials that they distributed to members, such as MWM's graduate directory for the Benton County group that contained member strengths, and TREAT's "Handy Hints" booklet of advice from other members on tree planting and care. These structural aspects of the groups facilitated the incorporation of peer exchange as a component of the atmosphere-building and information flow abilities of the groups previously described.

3.2 Members as a resource; diversity as strength

As expressed by participants, and as observable among the participants themselves, the group members brought a variety of diverse strengths and perspectives to the group. Though homophily was clearly a draw for the groups, this diversity among members was still seen as a benefit, as participants found interest in new or differing perspectives and appreciated having a variety of examples and skills to draw upon. This diversity also allowed for representation of a broader range of landowner goals, a potential advantage over agencies. While state agencies and Extension often focus on timber production, the literature shows that this is not a primary goal of most landowners (see Rickenbach, Zeuli, & Sturgess-Cleek 2005, and Bliss & Martin 1988 for examples). As one leader in the MWM case noted, a broad spectrum of members had a greater chance of appealing to a multi-faceted landowner community, and thus extending the reach of information.

One specific area of diversity among the membership pertained to management experience; some had been managing land for over 40 years, while others only a few years or less. Because of the opportunity for access to knowledge and a social network, the groups appealed to landowners who were new to the area or to landowning in general; however, more experienced landowners were involved as well. Newer members brought a fresh perspective and often a willingness to try new things, but the involvement of the

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more experienced members was critical for newer landowners, who relied on them for information, demonstration, and facilitation between themselves and professionals in the group.

The differences between newer and longtime landowners are reflected in the literature as well. A recent study (2010) by Mendham and Curtis on the differences between newer and longer-term rural landowners in Australia found that newer landowners had significantly lower self-reported knowledge about land management issues, were less likely to be full-time farmers, and valued conservation more than agricultural goals. Interestingly, newer owners were also significantly less likely to be involved in a Landcare group, which the authors relate to their less frequent involvement in full-time farming. A similar U.S. study that looked at rural land turnover and was noted in Mendham and Curtis's article found that newer landowners were more open to change, but that local knowledge was lost as longer-term landowners moved away from the area (Gosnell 2006, in Mendham & Curtis 2010).

Thus, targeting newer landowners may improve the knowledge base of this community, but continuing to involve experienced landowners could allow the groups to capitalize on local knowledge. Previously discussed aspects of the group atmosphere could be used to incentivize involvement, such as social opportunities or involvement in leadership positions. It was also noted in this study that mixing newer and more experienced landowners allowed members to come full circle, starting off as 'receivers' and eventually becoming more active leaders and teachers in the group as they gained knowledge and experience.

3.3 Participant-perceived benefits of peer exchange; evidence of peer exchange within groups

Participants expressed a variety of perceived benefits of peer knowledge and peer exchange. For example, they observed the potential for peer resources to take pressure

off of overburdened professionals, through volunteer labor or through fielding less technical questions from peers, thus freeing up professionals for more complex issues. This finding is also recognized as a key potential benefit of Landcare in Robertson et al.'s (2007) discussion of the burgeoning Landcare initiative in the United States, and Richert (2007) acknowledges the increasing scarcity of forest service providers in the area surrounding GLC. Evaluations of volunteer service from MWM and TREAT further support this observation: survey results in the first few years of the MWM Program indicated nearly 4,600 volunteer hours from the first approximately 100 MWMs (80% response rate), which represented nearly 2.5 full-time-equivalent positions (Fletcher & Reed 1996), and TREAT volunteers reportedly provided the labor equivalent of 1.5 to two Nursery staff members.

The two benefits of peer exchange most frequently expressed by participants pertained to the experiences of other members. First, the quantity and diversity of perspectives to which they had access through peers was seen as a benefit, because this provided a greater range of views than one would achieve from a single state agent, for example. Secondly, participants saw peers as a reliable source for real life examples – positive and negative – of various management practices and their results. Though small on their own, the various pieces of collected information had an additive effect for landowners, contributing to a broader perspective for their own properties. The opportunity to observe and discuss "what works and what doesn't" on others' lands was seen as beneficial because it allowed landowners to avoid trial and error, and thus save time and resources on their own property. These exchanges could be especially important on a local scale, when people were trialing innovative methods for the first time in the area. Landowners, like most people, want to know that an idea has been implemented successfully before attempting it themselves (Rogers 1995).

Corresponding to these expressed benefits, the results revealed evidence of peer exchange occurring most prevalently within the groups in the form of exchanged management tips. Group meetings and property visits provided forums for this exchange. This method of

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solution exchange during property visits was also observed for farmer-to-farmer workshops in Thailand (Simaraks et al. 1991). For our study, property visits were seen as especially beneficial because, in addition to being enjoyable for participants, they provided practical learning opportunities, exposure to new ideas, environments, and potential challenges, and allowed them to 'see into the future' of their own property – whether for good or ill – as a result of various management practices. The literature also reflects how property visits can present an opportunity for technological innovation exchange between farmers (Chambers et al. 1989). In our study, property visits were beneficial to the owners as well, as they provided fresh insights from others members and opportunities to share successes. These results support the findings of Cary and Webb (2000) in their study of farmers in community landcare groups, who valued "information exchange at field days and meetings" (p. 16) more than any other activity.

However, while participants did express benefits from peer exchange, peer knowledge was seldom *actively sought* by participants. More often, peer exchange occurred opportunistically, such as during the pre-arranged group situations described above. Participants made use of these situations to capitalize on peer knowledge *in situ*. Specifically, informal temporal spaces before, during, and after more formalized events were conducive to this opportunistic learning, as well as to the discussion and digestion of professionally presented information, and the forming of relationships. These informal spaces were sometimes viewed as having greater value to participants than the formal spaces within meetings. Groups seeking to foster peer exchange may do well to consider the amount and quality of interaction time provided for their members, whether in meetings, field days, workshops, volunteer events, or other social events.

In situ peer exchange also occurred between members outside of the group context, through spontaneous, casual meetings and conversations or through interactions at other shared landowner group meetings. More proactive exchanges between members occasionally occurred as well, through e-mail exchange or informal property visits. However, as these opportunities were not necessarily consistent, internal peer exchange

opportunities can still be recognized as an important tool utilized by the groups for landowner-to-landowner communication.

3.4 Collaboration of peer and professional information

Though the focus of this study was on peer exchange, the role of professional knowledge and participation in the groups arose as a crucial element in the provision and maintenance of these forums. As seen in MWM, KWC and DLC especially, a primary goal of the groups was to connect landowners with expert knowledge. However, the form and function of the groups as described above was conducive to involvement of peer knowledge as well, and the two knowledge forms worked in concert to satisfy landowner needs.

Professionals' main roles were to provide education, leadership, and technical assistance. Not all professionals were directly involved with the group, but were affiliated and could come to meetings, teach, or do property visits when needed. According to participants, professionals provided "technical" or "expert" information – research, legal guidance, financial advice, funding, and in some cases, specific management information and advice. Participants tended to use professional information when they had a specific question, or when they wanted to be certain about getting the right answer.

Peers, on the other hand, were utilized for "practical" information – general advice and experience-based information on quotidian management affairs, from controlling invasive species to tips on tree-planting. Practical knowledge was obtained through on-the-ground experience and lent credibility to landowners; this practical experience was something professionals were not always viewed as having. Peers were able to substantiate words with real life examples, and could serve to ground-truth technical information.

Both technical and practical information were seen as useful by participants, however, and both types of information were available through the groups. This likely contributed

to group usefulness as information tools, as groups were able to maintain the comfortable atmosphere and social dynamic of a peer group, with the added benefit of having access to trustworthy "expert" advice. This expert advice could support peer information, and the peer information helped to clarify the professional information. Similar conclusions were drawn by Chambers et al. (1989) in their discussions of farming communities in developing countries:

> *Recognition of farmers' knowledge and innovative capacity does not necessarily mean that they do not need extension services. Rather, it points to needs to improve the interaction between extensionists and local people to reverse and balance conventional 'top-down' communication and to overcome gaps and miscommunication (p. 45).*

A final note on the role of professionals in the groups pertains to the notion of the groups acting as 'the Great Equalizer' among peers and professionals. Regardless of participants' general views on professional information, there was overwhelming praise for the specific professionals involved with the group, especially the leaders, who were in some cases also professionals. In the case of some leaders, it was difficult to tell whether participants viewed them as professionals or peers, but largely it did not appear to matter; they were trusted either way. In fact, in some cases the particular question guided source choice; some participants knew the group network well enough to know the right person to ask, regardless of whether they were a peer or professional. These findings indicate that the line defining traditional roles became blurred within the group environment. Indeed, participants seemed to distinguish little between peers and professionals in the group, at least in terms of comfort, and both peers and professionals contributed to the knowledge that participants gained via the group. Overall, these results indicate that the non-hierarchical nature of the groups, and the more personal nature of the relationships formed, allowed the groups to act as a medium through which professionals gained credibility among and access to the local landowner community.

Implications for Practitioners

The results of this study yielded a variety of common themes across cases studies of five highly diverse landowner community groups. While the cases themselves are unique, the inherent strength of their commonalities concerning group atmosphere, information flow, and peer exchange should not be understated; these findings offer important insights for practitioners in the field of landowner learning. Additionally, the differences among these individual cases provide unique insight for practitioners into a variety of informative models of peer exchange in the landowner community. In this case, "practitioners" refers to those who are interested in working on-the-ground with landowner education and behavior, most notably extension and other government agents, though private contractors and businesses, as well as non-profit or non-governmental organizations may benefit as well. As traditional landowner education and outreach efforts have not proven effective for these practitioners in reaching the majority of forest landowners, peer exchange may offer a means of extending outreach. In fact, Rogers (1995) suggests that peer-inspiration may be especially important for 'late adopters' of innovations. As many studies on landowners classify segments of the population as uninterested, unreachable, or otherwise difficult to access (Butler et al. 2007; Finley and Kittredge 2006), peer exchange may provide an avenue for reaching these landowners who have been traditionally inaccessible, overlooked, or discounted by traditional research and outreach efforts.

The key findings discussed above suggest a variety of considerations for practitioners aiming to build landowner organizations that effectively foster peer exchange and promote overall information diffusion within the landowner community.

- *Hold regular group functions.* Consistent group-specific meetings or other gatherings played an integral role in building and maintaining community in the group, as well as offering a forum for both planned and spontaneous peer

exchange. Caution should be exercised when choosing meeting times, so as not to inadvertently exclude certain demographics from the community.

- *Take coffee breaks (or tea breaks, as the case may be!).* Within these formal group functions, practitioners can make concerted efforts to create spaces for informal interactions and socializing between members. Not only were these informal spaces seen as enjoyable to participants in the study, thus encouraging involvement, but they provided important opportunities for decompression and digestion of expert information. Additionally, these spaces provided opportunities for peer exchange that were more accessible to members who preferred not to share during more formal settings.

- *Foster a comfortable, egalitarian atmosphere.* As exemplified by GLC, a non-hierarchical setting of peers and professionals, coupled with an environment where ideas were treated equally and management discussions were encouraged, fostered a comfortable learning situation for members. Incorporating the informal spaces described above into this setting can encourage peer exchange, as well as allow professionals access to factions of the community that have been traditionally more difficult to access.

- *Foster inter-organizational community.* While most cases demonstrated member crossover with other landowner community groups, the degree to which the study groups fostered and capitalized on these potential relationships varied among cases. Capitalizing on this networking opportunity via member liaisons, event advertising to other groups, and regular inter-group meetings, as seen with the TREAT President's SATRA meetings of all local reforestation groups, may increase resource availability for members, increase the reach of group information, and help to build the broader landowner community.

- *Publish a group newsletter.* Newsletters were employed as a communication tool in all five cases. They were frequently cited by leaders as an important form of communication with members, and members expressed appreciation of these resources as well. Additionally, they provided opportunities to spotlight members so that other members could learn about them.

- *Get their hands dirty.* Hands-on learning opportunities such as field days, property visits, interactive workshops, and labor parties were often expressed as more interesting and useful than lecture-style learning opportunities alone. Practitioners who can find creative ways to pair these learning opportunities may appeal to a broader audience of landowner learners. Encouraging peer-led property tours and workshops would provide the added element of fostering peer exchange.

- *Keep it local.* Practitioners need to be conscious of the size and scale of the organization, as local relevance was perceived as a key benefit of groups to member participants. If organizational reach becomes wide, practitioners can consider encouraging the development of subgroups or "coffee clutches," as one participant stated, of geographically close members, as seen in the neighborhood Landcare groups of DLC and the Work Party of KWC.

- *Cater to new landowners, but incentivize involvement of experienced landowners.* The opportunity for local knowledge and new social or information networks held great appeal for new residents and first time landowners in the study. Practitioners would do well to capitalize on this interest, but not to the exclusion of experienced landowners. As seen in the literature (Mendham & Curtis 2010), this study demonstrated a discrepancy in management knowledge between newer and longer-term landowners. Consequently, peer groups such as those in this study may provide key opportunities for landowners with diverse experience levels to interact, providing an important resource and facilitating learning for

newer owners. To this end, practitioners can incentivize involvement of experienced landowners, one means of which could be to:

- *Identify peer leaders and create opportunities for their involvement.* This study showed the importance of dedicated peer leaders to the stability of the groups and to participant experiences. Recruiting respected, experienced peer leaders for leadership roles within the groups – e.g. Board members, guest teachers, and committee leaders – may satisfy the dual role of maintaining a dedicated core of members and involving the experienced landowners necessary for productive peer exchange.

- *Cater to multiple landowner needs.* In addition to providing information for participants, the groups also provided social/leisure opportunities and emotional satisfaction, the latter of which was provided through volunteer opportunities, opportunities to share knowledge and accomplishments, and a provision of a sense of ownership in the group. By providing a more comprehensive organization, participants had more reason to take the time to become involved, as many of their needs could be satisfied in one place. Practitioners could include social gatherings in the events calendar, as well as consider ways to incorporate volunteer opportunities for members.

Implications for Government, Industry, and Conservation

The results of this study also indicate a variety of implications for state and federal government action and for conservation in the United States. An important product of this study is the insight it yields into funding needs for landowner education efforts. External funding played a crucial role in MWM, KWC, and DLC's abilities to run their programs and fund coordinators, who played an enormously important role in the function of these groups. GLC relied on funding for its Facilitator at its upstart, but has since been forced to rely on volunteer efforts. TREAT too relies on volunteer efforts,

but has been able to exchange volunteer labor for state government-owned space in which they run their program. It should also be noted that the three case studies with consistent external funding (MWM, KWC, DLC) were able to run far more intensive educational programs than those without it (GLC, TREAT). In places where appropriately skilled volunteers are unavailable, funding for group coordinators will likely be crucial to fostering a productive group as well as an active educational program. Investment in landowner organizations also bears mention as a potential means of creating "intermediaries" between community organizations and government, as described by Dongier et al. (2003). The DLC provides an illustrative example of this potential, as the regional group functioned as a coordinator of government funding which it used in part to run educational programs for the smaller community member-run Landcare groups.

This study also yields insight into the potential of the international Landcare movement to act as a vehicle for peer exchange in the landowner community. The flexible nature of the Landcare structure that allows it to be adapted to local situations, as well as the resonating appeal the idea of 'landcare' has with landowners, and the friendly, casual, yet credible atmospheres exhibited by the groups in this study provide promise for broad appeal. Landcare's nationwide success in Australia, driven by top-down government support and funding, and bottom-up community initiative provides a valuable historical and present day reference for other nations hoping to foster similar success. The idea of Landcare first reached the U.S. only a few years ago, and has since established a small but burgeoning presence on the East Coast, as observed by Virginia Tech's Landcare Center (Robertson et al. 2007). However, while Landcare has only recently been adopted in the U.S. by name, a great many community groups or initiatives may already be functioning like Landcare groups through their focus on a variety of land and water issues, as well as issues of socio-economic stability on the landscape (Kimmel, Robertson, & Hull 2008). These groups may be well-poised to join a broad-scale U.S. Landcare initiative.

Top-down "master volunteer" programs and bottom-up woodland owner cooperatives, also represented in this study, have both been successful models of landowner outreach in the U.S., though not nearly to the degree necessary to reach the ever-expanding audience of family forest owners. As a balance between top-down and bottom-up drivers, as well as for the characteristics mentioned above, Landcare may provide an additional medium through which to strengthen the peer exchange model of information networking in the U.S. private landowner community. As a U.S. organization, Landcare could provide a local community group initiative that represents a diversity of interests, yet converges on the 'triple-bottom line' of sustainability, and could connect landowners to both peers and expert resources. As mentioned, the community initiative may already exist for growing a U.S. Landcare movement, and further research is needed to assess this capacity. As in Australia, however, support by state and federal government or other funding bodies will be necessary to foster the initiative, at least for providing start-up incentive and capital for the formation of new groups. While individual Landcare groups will have different funding needs, Kimmel, Robertson, and Hull (2008) also indicate the importance of these parties in providing technical assistance and leadership to the groups. Additionally, the Australian Landcare initiative received support through intensive promotion from the Australian national government at its outset, which included a broad-scale public awareness campaign.

A greater focus on peer exchange in the landowner community could have significant implications for conservation in the United States. With reference to the family forest landowner community specifically, nearly half of the nation's forest resource is currently in the stewardship of this community, indicating implications for the timber industry as well. Landowner organizations that foster peer exchange as well as networking with experts may help to increase members' information access, knowledge, and general awareness of pertinent ecological and other management issues by providing both the practical and technical information necessary to guide management decisions. While further research is necessary to track the implications for specific behavior change, the results of this study indicate that involvement with the group motivated or facilitated

participant action toward pre-existing goals. It was also clear that to some degree information diffused beyond the borders of the member groups to the broader landowner community. Creating a more informed landowner community could yield positive effects for both the timber industry and conservation efforts on private land. Additionally, a positive side effect of fostering landowner peer groups may be an increase in the potential volunteer base, a boon for conservation efforts in terms of human capital if this element is adopted by the organizations.

Caveats and Limitations of the Study; Future Research Needs

The aim of this study was to gather perspectives that would ultimately inform current understanding surrounding the present and potential role of peer exchange, or peer-to-peer learning, in the flow of information to and within the family forest owner community. Specifically, this study aimed to observe this social phenomenon within the context of landowner organizations. To allow for new ideas from related sectors which could inform directions in the woodland owner sector, the study examined models of peer exchange both within and outside of the U.S. family forest owner community. Consequently, two popular organizational models in the woodland owner community were examined – a "master volunteer" program and a woodland owner cooperative. The remaining case studies examined the Landcare model, which while new to the United States was highly successful in another culturally similar country and encompassed a mix of forest and agricultural/pastoral landowners. The ecological, cultural, and practical differences among these landowner communities, such as differences in growth rate between the temperate and tropical ecosystems and in the ratio of landholding size to population, may present certain barriers to the translation of the study findings for use by the U.S. woodland owner sector. Additionally, the qualitative nature of this case study research provides a limitation in that the findings do not represent the landowning community as a whole, nor do participant perspectives represent the views of the group membership as a whole. However, for both of these limitations the strength of the common themes across the diversity of cases and the dearth of exploratory research on

this subject is presented as justification for the transferability of the study in informing the family forest owner research base.

This study provides initiative for a variety of future research directions. For example, this study did not delve deeply into the effects of group involvement on management behavior. As the discrepancy between attitudes and behaviors is well-documented in the literature, it is crucial to determine the direct relationship between group involvement and behavior change. For an example of a study that has made such an effort, see Rickenbach, Guries, and Schmoldt (2003). Additionally, further research efforts are needed to determine the prevalence of information diffusion beyond the group members themselves, and the consequent effects of behaviors, as seen in a recent study on the beyond-group effects of the New York Master Forest Owner program (Broussard Allred et al. 2010).

Additionally, as mentioned above, future research is needed to determine the community capacity for peer-based landowner organizations. An assessment of forest landowner community interest surrounding peer exchange within landowner organizations is necessary to secure government and institutional investment in the issue. Additionally, such research could determine the community potential for a widespread Landcare initiative in the United States.

Concluding Remarks

While the framework for this exploratory research centered on peer exchange as a mechanism for information dissemination, the data ultimately yielded insight on a variety of factors that worked in concert with peer exchange to enable the study groups to be effective learning environments and tools for information access and communication.

This study found that the peer-based nature of the study organizations fostered a **credible**, **comfortable learning environment** in which landowners could access **localized**, **experiential knowledge** from their peers, in addition to **technical knowledge** gained from professionals affiliated with the group. Additional contributing factors to the appeal and functionality of this environment included **strong leadership**, practical or **hands-on learning** opportunities, and the satisfaction of **multiple landowner needs** – informational, social, and emotional. The **network** created out of this environment provided an information resource that could benefit both members and the broader landowner community. Involvement with the group and access to group resources **influenced** participants' **awareness** of and **involvement** in issues and activities that pertained to the landowning lifestyle, and facilitated **refinement** and **accomplishment** of participants' **management goals**.

These insights provide an important contribution to the knowledge base concerning the value of peer exchange and landowner organizations to the private landowner community, and provide specific considerations for practitioners seeking alternative information channels for reaching the masses of family forest owners in the United States.

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Appendix A: Sample Interview Guides

INTERVIEW GUIDE FOR ORGANIZATION LEADERS - DLC

1) **Who am I:** [Interviewer] Member of a research team from the University of Minnesota – Twin Cities. We are funded by the USDA Forest Service.
2) **Study:** A multi-case analysis of natural resource programs/organizations that contain elements of social networking and peer-to-peer learning.
3) **Goals:** To understand more about the flow of information to landowners, and to learn how social learning networks can help to promote sustainable land management behavior.
4) **How:** By understanding local plans and strategies that encourage these social networks through interview and in-depth analysis.
5) **Why you:** We are interested in talking with you, in particular, because of your role in leading and/or organizing the organization, and because of your interaction with and observation of the participants.

Organization Background and Context:

1.) **Please begin by describing your role in the organization.** How and why did you come into this role?

2.) **Describe the mission of the organization.** (What specific attributes or activities of the organization allow you to achieve your goals?)

3.) **What is the scale of the organization?**
   a. What is the size of staff, Board of Directors, etc.?
   b. How many participants are there now? How many over the course of the organization?
4.) **(What do you feel distinguishes this organization from others like it? In other words, how is Landcare similar or different from other organizations local landowners may have access to?)**

Participants:

1.) **Who are you trying to reach with this organization? Why them and not others?**
2.) How do you advertise to prospective participants in the organization? How do people find you?

3.) **Describe your typical "member".**
   a. Are there any distinguishing factors that set them apart from the rest of the (landowner) community?
   b. Why do they seek out this organization? What needs, motivations, and goals do they express?
   c. What do they depend on you for?

4.) **What does being a member in this organization entail?**

a. What are the <u>benefits</u> to being a participant?
b. What types of <u>activities</u> are available to participants?
c. What duties/<u>responsibilities</u> are involved?

Peer-to-peer interaction and network development

<u>Communication:</u>
1.) Describe the flow of information between LC and its members.
   a. **What are the main means of communication employed for/by current members?**
   - In other words, how does 2-way communication happen between members and leaders?

     Members and other members?

2.) **What is your level of interaction with LC members (how, frequency, duration)?**
   How well do you know member needs, including their reasons for participating in the organization?

(Is peer learning and/or the formation of landowner social or information networks a <u>goal</u> of this organization?)

3.) To what degree is peer-to-peer learning a goal of the organization:
   a. **Between members of the organization?**
   b. **Between members of the organization and other landowners/community members in the community?**

(How does the <u>structure</u> of the organization facilitate peer-to-peer learning or social and/or information network formation?)

4.) [If appropriate] What do you/the organization do to encourage or foster peer-to-peer learning?
   a. Does your organization offer <u>opportunities</u> for members to be involved in peer teaching and learning? Describe?

(What is the <u>evidence</u> of peer-to-peer learning, etc.?)

5.) How/in what ways do the members interact with one another within the context of the organization?
   a. <u>What</u> mediums are used (i.e. meetings, classes, volunteer opportunities, social gatherings, virtual?)?
   b. <u>How</u> do they interact within those mediums?
   c. When members have questions related to their land (management, conservation, ecology, etc.), <u>who they seek answers from</u> – you, or each other? Or some other source?
   d. How often do members act as a <u>source of information</u> to other members?

6.) Are there meetings or interactions among participants of any kind outside of those arranged by the organization?

7.) Are there any other examples of instances that you feel were evidence of social networking or peer-to-peer learning/teaching in action (in or outside the organizational context)?

8.) Do you consider LC to be a community-run organization, or a professional/gov't run org.? Both?
    a. Is LC a "conservation" group? "Restoration"? "Community"? *What?*

Concluding thoughts:

1.) **What do you feel are the greatest impacts of your organization?** Do you feel that this organization has a direct impact on the <u>landscape</u>? If so, describe how.

2.) **What are the greatest strengths of the organization? Any areas that you feel need improvement?**

3.) **What is your greatest 'highlight' from your time spent working with the organization?**

4.) **Do you have any final thoughts?** Were there any other questions you would have liked to answer, etc.?

INTERVIEW GUIDE FOR ORGANIZATION PARTICIPANTS - DLC

1) **Who am I:** [Interviewer] Member of a research team from the University of Minnesota – Twin Cities. We are funded by the USDA Forest Service.
2) **Study:** A multi-case analysis of natural resource programs/organizations that contain elements of social networking and peer-to-peer learning.
3) **Goals:** To understand more about the flow of information to landowners, and to learn how social learning networks can help to promote sustainable land management behavior.
4) **How:** By understanding local plans and strategies that encourage these social networks through interview and in-depth analysis.
5) **Why you:** We are interested in talking with you, in particular, because of your participation in Landcare. We would like to learn about your reasons for participating, your experiences with the organization itself, and your actions and experiences since joining the organization.

Background

1.) Please describe your land to me.

    a. How **long** have you owned the land? **Size**?
    b. Where is it located? Are you a permanent resident there/here?
    c. What is your **main purpose** for owning the land? (Multiple purposes?) How is it used?
    d. Do you have any **specific plans or goals** for your land? (projects, management plan, certification, etc.?)

(Potentially: Please describe your role, as you see it, A) in LC. B) In the community in general?)

2.) As a landowner, what are your greatest needs and challenges?

About your experience with DLC

1.) What specifically caused you to seek out Landcare in the first place?
    a. What **needs** were you seeking to have met?
    b. What about this organization appealed to you?
    c. How did you select this particular organization over others?

2.) How did you first hear about this organization?
3.) How long before you joined? Did it take time/persuasion for you to make the decision?

4.) How involved are you or did you become with the organization? Can you give me a few examples of activities that you've engaged in as a member of DLC?
   a. How have these activities impacted your knowledge or confidence as a farmer/landowner?

5.) Do you feel you 'got what you came for' from your involvement with DLC?
   a. How useful has the organization been at meeting your **needs as a landowner/community member**? How could the organization be improved?
   b. Please describe one specific positive and one negative moment or aspect?

6.) **(Have you participated in any other organizations similar to this one?** If so, how did they compare? I.e., how do they differ in what they provide to you as a landowner/community member?)

Peer-to-peer interaction and networks

(Info Seeking and Sharing)
   1.) First, think about who or where you go for information when you have questions about your land. Examples of who/where?
   a. When seeking information or advice on land-related topics, decisions, uses, etc., how often do you consult with other landowners/neighbors (as opposed to NR profs). How often do you consult with NR professionals?
   b. How does this compare with your pre-LC days? (note: find out about balance between sources AND sheer quantity overall)

   2.) Describe your level of interaction and rapport with the other members of the organization.
   a. In what ways do you feel you (have) benefit(ted) from the **experiences and/or knowledge of other members**? Examples?
   b. In what ways do you feel that *your* **experiences and knowledge have helped other members of the group**? Examples of what you have been able to share or specific times?

   3.) What have been the most valuable factors of this organization for you?
   a. How important were the organization <u>leaders</u> to your experience with the organization?
   b. How important were the other <u>participants</u> to your experience with the organization?

(Behaviors)
   4.) Did your involvement with the organization prompt you to make changes to the way you manage or care for your land? Examples?

5.) Did you help others who are not members of DLC to make any of these types of changes (in respect to their behaviors toward the land)? Examples?
a) (If appropriate: Have you brought information from LC to other organizations you are involved with? Vice versa?)

6.) What other changes has the organization brought about in your life?
  a. Level of interaction with neighbors/resource professionals?
  b. Involvement in your land or land issues in general?
  c. Social network?
  d. Other behaviors, views, etc.?

7.) Do you consider LC to be a community-run organization, or a professional/gov't run org.? Both?

Concluding thoughts:

1.) How do you envision your land 10 years from now?
  a. Do you wish to pass it on someday, or will you sell it?
  b. If you **envision change, describe** that change. Otherwise, how do you intend to keep it the way it is now?
  c. How will this **organization help you to accomplish that vision**? What is the organization lacking to help in this regard?
  d. **Has the organization changed this vision?** How?

2.) What do you feel are the greatest impacts of your organization? Do you feel that this organization has a **direct impact on the landscape**? If so, describe how.

3). Does peer-to-peer work?

4.) Do you have any **final thoughts**? Were there any other questions you would have liked to answer, etc.?

Appendix B: Transcription Conventions

* *Italicize* emphasized words or parts of words, though I occasionally interchange this with CAPS.

* Use ellipses for pauses and hesitations; if the pause is significant, note it with (pause) or (long pause) [**NOTE**: In final presentation of quotes, "word … word" indicates that words have been deleted and "word.. word" indicates a pause by the participant.]

* Use a hyphen to indicate if someone stutters, abruptly cuts off a word, or switches gears really quickly ("I-I mean they could" "I don't thi- I mean I don't know") I also use them to set off asides from the interviewee in the middle of sentences ("So then Bob – he's a large landowner down south – came into the program…").

*( ) = sounds, verbal asides (such as minor interjections from the interviewer), notes on intonation, actions (i.e. pounding the table, or to indicate that the interviewee emphasized a word because they are pointing) etc. – essentially, things that happen within the interview that need to be noted.

*[ ] = Use 1: words inserted into the dialogue by the transcriber to clarify the flow of a sentence (but were not actually said by the interviewee). Use 2: other inserted thoughts, comments, or observations by the transcriber. I use this mostly for extrapolations I'm making as I type, but as that is unnecessary for you, you can use it to insert comments where you were unsure of something (or use the insert comment function in Word).

AK – Amanda Kueper
ES – Eli Sagor
(…) = *unimportant* filler words, incoherent or lengthy stuttering, etc.
(?) = not sure of word or meaning implied by word; use for areas you want me to review. Can use for spelling too – **(sp?)**
#mis = garbled speech, missed/lost words
#aff = non-unique affirmation words or sounds from *interviewer(s) only* (mm-hm, right, ok, yeah, great, etc)
#i = Interviewee (#ih and #iw for husband and wife)
#l = laughter - all/interviewer(s) and interviewee
#lu = interviewer(s) laugh
#li = interviewee laughs. Can also put in the middle of sentences to indicate them laughing while talking
#cu = interviewer(s) chuckle
#ci = interviewee chuckles
#mwm, #mwms = Master Woodland Manager(s) (said in full)
yk – "you know"
#tangent = tangents unrelated to flow of conversation/subject of interview – include a short description (e.g. #tangent kid walks in). Used sparingly.

Appendix C: Master Code Sheet (final version)

<u>Atmosphere/Community</u>
1 - TRUST in/Approachability of Organization
2 - VOICE/go-between for landowners
3 - Safe space/"Forum to dream"
5 -Social Incentive/friends – breaking bread included
6 – Building Community – includes builder broader l.o. comm.; access to workforce

<u>Knowledge/Information/Learning</u>
9 - Information Networking Potential **A)**Within group (includes 'who to call') **B)** Beyond Group
10 - Awareness
   A) Helps members connect with resources they wouldn't normally know about,
   B) Keeps issue/land in the front of your mind; repetition
11 - Hands-on learning - learn by doing, develop **skills** and not just gain knowledge
12 - *Localized* **info** - Area-specific knowledge. Specificity to personal needs.
13 - The Relationship with "Professionals"
   A) Role in organization
   B) Peer vs. Pro knowledge – Perceptions and Comparisons; Practical vs. technical knowledge/info
   C) P2P groups functioning as 'The Great Equalizer' (between peers and pros)…
   D) Gray line between professional and peer/neighbor – sometimes both!
14 - Knowledge among members/peers
   A) Diversity among members – different strengths, expertise, professions, and connections to bring to group; different "ways of knowing", different interests/perspectives
   B) The separation of knowledgeable and less knowledgeable/new, and the need for both
   C) Point people – key peers that everyone mentions/goes to; peer leaders
15-Impact of organization on **landowners knowledge/confidence as landowners/perspective**

<u>Methods, means, and other misc. aspects of p2p</u>
16 - Miscellaneous usefulness of peer knowledge/peer learning
      •   **16-DIFFUSION –** includes 'no push'
17 – Examples of role of P2P in organizations' *goals*
18 – Examples of role of P2P in organizations' *structure*
19 - Evidence of P2P/Opportunities/P2P in Action within Organizations

<u>Other</u>
22 - Importance of the leadership
23 - What's in a name? - the importance (or unimportance) of "membership" and "branding"/ownership
24 - Tension with the "Greenies"
25 - Role of Financial Incentive
26 – Giving/'Sharing abundance' – also reciprocity, give and take
27 - Effects of being in group – increased interest/involvement
28 – Time – lack of/commitment/etc.

<u>Miscellaneous Deductive</u>
About the Participants
D1 - Why do they own the land?/goals
D3 - Member traits/needs – what are members/landowners like? Who are you trying to reach?
D4 - Why did they get involved in the program? – include whether or not it took persuasion
D5 - What did participants **value most** about the organization**? -Benefits/responsibilities of membership**
D6 - *Examples* **of how and to what degree participants became involved in org –** activities
D8 - Participants' thoughts on the program – pros, cons, did it meet their needs?

About the Program
D10 - Effect on behaviors of landowners
D11 - How does 2-way communication work in the organization?
D13 - Comparison to other landowner/community groups
D15 - Impacts of the organizations

APPENDIX A: INFO - Info sources expressed by the participants – general; indiv. contacts
APPENDIX B: BC – Background context/info – for individuals; for Organization
APPENDIX C: PL – Parking Lot
- **21 - General views/comments on P2P (as a means of learning)**
- **29 - Random woods/forest-specific comments**
- **D2 - Challenges and needs** expressed by landowners
- **D14 - Strengths/weaknesses/challenges of organization**
- **Tension with Government**
- **Family**
- **Nature**
- **Proactive**
- **Other**

Appendix D: Coding Sample

Figure 1: Sample scan of hand coding; page 4, interview [5-2]

trees are planted in- yk (AK: oh..) into- into the landscape #aff. Um, (..) they only happen...um mainly only happen during the Wet Season. #aff. Um, we ah go to the Field Days that are had throughout the Dry Season mainly. Um..well like the one that's happening tomorrow at ah..um...uh. ▮▮▮▮'s place #aff. Um, so we go to those, and we'll be having a field day next year at our place, (AK: oh wonderful) ah, to show people what we've been up to. Um...we used to do a little bit of...(..)we're both working a bit now, and of course our(..) project on our land takes up an enormous amount of our time, but um #aff initially when they first opened this um..display center [we were in the display center] we did a bit of...ah..sitting here and talking to people that came in. Ah...cause it's usually manned for 3 days a week. #aff Um...what else have we got involved in? Oh, whenever, yk, a bit of fruit collection when we can #aff. If there's something that we know that they're..they're after, or if we see something that's interesting #aff they might need. Um, so, there's a little bit of fruit collection. (AK: for TREAT?) For TREAT, yeah #aff, yeah.. (AK: to bring the seeds in) Yeah, if-if yk we get something that we think they might want or #aff..that there's plenty of. (AK: excellent) Yeah.

AK: So, all these things that you've gotten involved with, especially being newcomers to the area, um, how did- how, or has your involvement with TREAT then had an impact on your knowledge as a landowner do you feel?

#i: Oh completely, yes, yes it's-

AK: Mmhm, what kind of ways?

#i: Um, learning the...the type of forest that we have. The- the, species of trees that ..that are in that forest. #aff Um...and learning all the processes of how to revegetate #aff our property. Um, it's also put us in touch with (..) a lot of people who are doing similar- ah similar things, and have similar interests, and-and especially when we first started. There was a number of people that showed us their properties, and...and talked to us about their experiences, especially in um..weed control #aff, 'cause that's the major...the major problem #aff that-that we face all the time is..is weed control in the..in the plantings. #aff So um, we- And there-there were so many different methods, yk there were-...(..)almost every single property that you go to, people do things slightly differently, #aff or have a different um...just have a different perspective on(..) how things should be done. And um...so yk we were able to pick and choose what suited us #aff. And...some people like to just-..they don't sort of look at it um...as putting back the landscape, they..they just like planting trees, and they're not specifically um..worried about whether they're trees from the exact same area or not #aff, and yk things like that. And then you get other people that are very, very knowledgeable about(..) the weed(..) control, and the um..the processes of um...um..planting- planting an area, a new area to start #aff-

AK: Are you saying this is the range of people involved in TREAT, or?...

15:12

#i: They're people that we've met through TREAT. #aff They're other- other volunteers mainly, who..who um.. Once you sort of start coming here regularly, you just get to know a crowd of people who are all doing similar things, and they'll all invite you out to their properties to have a look at what- what they've been up to #aff, and-and and that's- that's how it works, yk there's a whole network of people here (AK: interesting) that are all interested in doing similar things.

Comment [K1]: Homophily, experiential knowledge, diversity, bits and pieces..
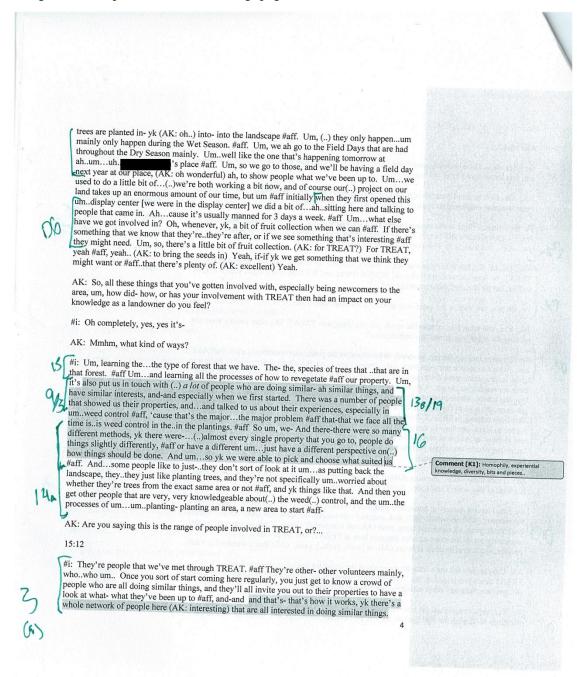
4

Figure 2: Sample scan of hand coding; page 5, interview [5-2]

14A

#aff And some are more serious about planting exactly the right kind of forest (..)in their particular area #aff, while some other people are more interested in growing trees for timber, some people are more interested in just growing trees…f- yk, for..for…for the aesthetics I suppose #aff, but um..um.. And you learn different things off different people. #aff Yeah and so..it's been- And-and of course different scales as well, yk some people are doing huge plantings every year, other people are just doing a small…(..)a little bit each time and-and have different methods #aff.

AK: Excellent. Um, so I guess…we'll(..) definitely like delve into that a little bit more next, but first I wanted to ask you, um, just sort of generally if you feel like you've gotten what you came for when you joined TREAT, like obviously you were looking for something when you approached CSIRO (#i: hm) and you were directed to TREAT. So , do you feel that um..TREAT has been useful in meeting your needs as a landowner coming into the group, or met your expectations?

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#i: Yes, I mean initially…because um… When we first came to TREAT, we were sort of t-.. The kind of forest that we have, which is 5A, is not necessarily the kind of forest that TREAT's particularly involved in #aff. They(..) are interested in the very rare, um, the very um (AK: 5B, Mabi 5B) yeah, 5B (..)Mabi Forest that's right (AK: I do remember a few things from 3 years ago #cu) Yes, yes #ci. So they're heavily involved in-in the ..the Mabi forest ah, re-creation, because there's so little of it left. And also Hypsie(sp?) forest, #aff and some of the coastal forest. Now our forest type didn't fall into any of those, ours is 5A. Um, so initially we sort of like thought, "Oh..yk this- we're- wer'e not going to…we're not going to get what we need from being at TREAT." And also, yk we sort of came in thinking "Oh we'll be able to buy thousands of trees!" #c And of course you can't buy any trees from TREAT, yk and you can't access thousands of trees. (AK: you can't buy trees through TREAT?) No you can't buy trees (..)through TREAT. (AK: Do they donate them, er?) Um they- yes, they- you-you can get…you can get trees through TREAT by putting in an application for ah, (AK: for the planting?) for a planting (AK: oh ok), but that's usually limited to numbers (..)up to 300 trees #aff, any one season. #aff And of course we were interested in planting thousands of trees #aff. Um, but we soon realized that..because we were so-..we were- we were just so new to it all, um, that we had to start off small really. And learn about it, and through being here we would learn about how to propagate our own trees. #aff And um..so that we could get the species that we needed. #aff And we also found that there were lots of trees that actually crossed over from Hypsie forest to 5A #aff. Not so much from Mabi, but ah, but definitely from Hypsie. And it j- we just learnt all the..all the processes, you know. (AK: interesting) Um…So it became very clear in a short period of time of coming to the Friday mornings, that we were going to learn everything that we needed to learn. Um, but of course, you never stop learning #li (AK: Right, well I hope not #lu) There's always- yeah, there's always heaps and heaps of new things, #aff um, and always new adaptations on things #aff or-or um…there's always heaps of extra information that you pick up. And…things to look out for…and ah…and of course, things that you forget and then relearn. #l #aff

> **Comment [K2]:** Teach them how to fend for themselves, rather than relying on outside resources.

16

AK: Great, so it sounds like you came in with some sort of half expectations that you know you thought…but then those (#i: yes, they changed.) sort of got tweaked and changed by what you learned at TREAT (#i: they changed dramatically) Interesting, (#i: yes, yes) interesting. Um-

#i: And that was in- that happened in a very short space of time.

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