

EXPLORING DISCRETION AND ETHICAL AGENCY  
OF BC PROFESSIONAL FORESTERS:  
THE SPACE BETWEEN OUGHT AND CAN

by

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## **Abstract**

In British Columbia (BC) foresters registered with the Association of BC Forest Professionals (ABCFP) have been given the exclusive right to practise professional forestry. As with all professions there is an expectation that Registered Professional Foresters (RPFs) conduct their activities in an ethical manner, and are therefore obligated to act as an ethical agent on behalf of society regarding forest resources. If a certain level of ethical agency is desired of professionals, we need to understand whether or not an RPF possesses the ability (defined as their discretion) to sufficiently fulfil this responsibility. Rule-based and principle-based standards of forest management, an RPF's scope of practice, and the socio-political framework of public forest management in BC all come together to define an RPF's discretionary context, which sets the limits to an RPF's discretion. This context is highly idiosyncratic to a specific situation or decision and this makes the RPF's discretion similarly idiosyncratic. This suggests that an RPF should not be accountable for a standard of ethical agency that does not reflect the context-dependent level of discretion they possess. Fifteen interviews of RPFs were conducted for this study to discuss their approach to ethical decision making. The analysis of the interviews revealed 12 major themes, several of which appear to be highly idiosyncratic to the situations described by the participants. The way these themes were perceived by the participants revealed the differences in the discretionary context of their situations. Several aspects of ethical deliberation emerged from the data that appear to be particular to broad employer categories, including delegated decision-making (government), economic and forest health considerations (industry), and the tension between personal and professional values (consultants).

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Stephen Baumber, RPF

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# 1 Introduction

## 1.1 Background

The profession of forestry was established in British Columbia (BC) in 1947<sup>1</sup> and over sixty years later the fundamental basis for the agreement<sup>2</sup> between society and the profession remains unchanged; forest professionals are expected to uphold the public interest in the forest resources of BC (BC Gov 2004).<sup>3</sup> Registered Professional Foresters (RPFs)<sup>4</sup> have an exclusive right to practise and are entrusted with a certain degree of *agency* meaning that society has entrusted particular activities to RPFs and allow them to make specific decisions on their behalf. However, as with any profession, society's trust in RPFs goes beyond the specialized knowledge, skill, and judgment that they offer. An RPF is also expected to act as an *ethical* agent on behalf of society with regard to forest resources; they are obligated to sufficiently resolve, in the best interests of society, the ethical issues that they encounter in the course of their professional practice (ABC FP 2002).<sup>5</sup>

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<sup>1</sup> The Association of BC Professional Foresters (now the Association of BC Forest Professionals or ABCFP) was first established under the *BC Foresters Act* in 1947. The ABCFP continues to exist under the current *BC Foresters Act* (BC Gov 2004). This Act defines the practice of professional forestry, stipulates that one must be member of the ABCFP to engage in the practice of professional forestry, charges the ABCFP with the administration of the *Foresters Act* to monitor the performance of professionals under its jurisdiction and vests all authority to govern the association in its council. The ABCFP enrolls Registered Professional Foresters (RPFs) and Registered Forest Technologists (RFTs).

<sup>2</sup> I use the word 'agreement' on purpose. There are problems with a contractual view of the relationship between society and professionals such as an assumption of equality which may not hold when considering that a professional's knowledge exceeds that of the layperson (Bayles 1981; Jamal et al. 1995; Koehn 1994). One of the most marked problems with a contractual or expert model is an implied lack of client participation. Considering the amount of public consultation legally required of forest professionals Koehn's 'covenant' between the professional and society where a professional pledges service and derives their moral right to practice from the client's trust seems more fitting. I feel that the word 'agreement' is inclusive of either approach.

<sup>3</sup> Section 4(1)(a) and 4(2)(a).

<sup>4</sup> This paper specifically discusses ethics and social responsibility related to RPFs. I wish to avoid making assumptions about the perceptions of RFTs who were not part of my study group. I have referred to the profession in a general sense only where it seems that a statement could be reasonably true for both RPFs and RFTs. In this paper, the term 'forest professional' is used to refer to both groups, however, the term 'professional forester' is used to refer specifically to RPFs.

<sup>5</sup> I recognize that any ethical agency first stems from broad social mores (such as acting with integrity and honesty). However, the ABCFP recognizes that there is an ethical agency distinct to their profession; "forestry is different from most professions because the individual member is often called upon to determine the appropriate balance of economic, ecological and social benefits" (ABC FP 2002:3).



If we accept that RPFs are obligated to an ethical agency as a result of their profession, it follows that an RPF would also be subject to an *accountability* for their performance as an ethical agent. Just as an RPF is accountable for their expert opinions and recommendations, if an RPF fails as an ethical agent with regard to forest resources then they would be judged as not sufficiently fulfilling their professional duties. This is clearly evidenced by the disciplinary mechanisms of the Association of BC Forest Professionals (ABC FP) which address not only a member's competence but also their conduct.<sup>6</sup> Accountability in itself only implies that an RPF has the responsibility to act as an ethical agent. To apply accountability in a disciplinary sense means identifying the limits of an RPF's responsibility and, if necessary, assigning blame and exacting reparation. It is this aspect of accountability that gives us cause to understand how the performance of an RPF as an ethical agent is assessed.

In a general sense, a reasonable assessment of accountability relies on knowing what actions the professional "in fact can perform and which they legitimately may be expected to perform" (Koehn 1994: 134). Koehn also suggests that it would be unfair to expect the professional to be accountable for matters outside of their control. Following from Koehn, assessing ethical accountability should therefore be dependent on three aspects: (a) it should be restricted to those topics related to the activities that RPF's are legally entitled to perform; (b) it should take into account an RPF's competence; and (c) it should be judged according to the amount of control an RPF is given to resolve the ethical issues they encounter. The first two aspects of ethical accountability are clearly defined and understood by both the general public and the RPF.

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<sup>6</sup> A complaint against a member's ethical conduct is initiated based on a matter of perception when a fellow member or a member of the general public "believes" that an RPF has acted unethically (BC Gov 2004: Section 22). The disciplinary process is not fully engaged unless the ABCFP is satisfied that an ethical breach has been committed by a member. See the *BC Foresters Act: Section 22 to 24* (BC Gov 2004) and the *ABC FP Bylaw 14: Complaint Resolution Procedures* (ABC FP 2003).

Specifically, the activities that are considered professional forestry are defined by legislation, and the competence of a professional is easily gauged by investigating the RPF's relevant experience and education. The third aspect of accountability, the amount of control given to the RPF, is more difficult to assess.

Control is the influence that an RPF can exert over the outcome of their decisions and is equivalent to the level of *discretion* an RPF possesses in a given situation.<sup>7</sup> Discretion is often regarded as something that is 'given' but it is more useful to think of discretion as something that results from the context of a specific decision or activity. Being given the authority to exercise one's judgement is only part of what shapes discretion. Discretion is also the latitude of choice; the specific range of interests and values that a forest professional has the authority to promote or disregard in order to make their decision. Hence, an RPF's control over their ethical deliberations is the discretion they possess to include or exclude values and interests in their decision, and the extent to which they can promote or satisfy particular values over others. If RPFs are to be accountable to an ethical agency expected by society, how can we judge if this expectation is consistent with the limitations of the professional's discretion?

The problem is that discretion is idiosyncratic to each decision because it is contingent on both the context of the situation and how the RPF subsequently perceives the factors that limit their discretion.<sup>8</sup> Discretion is shaped by the external factors that deliver authority to the RPF and introduce the legal and social standards within which an RPF's decision must abide. The external

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<sup>7</sup> 'Discretion' is used in place of 'control' and is, in this context, taken to mean the same thing. Only a rough treatment of discretion is given here. See Section 2.3.1 for greater detail.

<sup>8</sup> This statement reflects my consideration of the contradictory philosophical arguments concerning the nature of decision-making and the role (or non-role) of the decision-maker as a determinate factor in their decision (see Gorman 1970). I choose to accept a non-positivist approach, which is to say that the decision-maker adds a defining element to a decision or situation that is separate from external factors. I feel that the perceptions of the decision-maker regarding a decision or situation are a product of how they process external influences, based on their pre-

limitations that form an RPF's discretion are easily considered as they are often the result of legislation and public policy. Less easily understood are the interactions between the relevant standards in a given situation, and the non-legislated influence that RPFs experience in the course of their work. Examples of non-legislated influences include direction from an employer, social pressure from special interest groups, and the influence of personal beliefs. Because the actual exercise of discretion comes from the judgment of the decision-maker themselves, I propose that only the practitioner can truly provide insight into how these influences affect their discretion. Therefore, to fairly assess a professional's performance as an ethical agent means understanding how an RPF perceives the limitations of their discretion. The purpose of this thesis is to attempt to explore the RPF's perceptions about complex influences that affect their discretion. Specifically;

*How do RPFs perceive the ethical situations that they encounter in their professional practice and do they perceive constraints to their discretion that affect their ethical agency?*

## **1.2 Overview of the Research**

Interviews were conducted with 15 RPFs for this study in which the participants provided both a narrative record of personal experiences (Appendix II) and engaged in a discussion of how they approached situations or decisions that they felt to be particularly difficult or ethical in nature. Although 15 participants are not sufficient to be considered a 'saturation' point in some forms of interview-based qualitative research, the interviews explored the deliberative processes of the participants and support a discussion of the practitioners' perceptions of the influences on their ethical decision-making.

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existing internal beliefs and knowledge. Hence, assessing the decision-maker's accountability is based on understanding *their* perception of the limits to their discretion.

My thesis constitutes the initial stages of a qualitative research study based on the grounded theory tradition of inquiry. The 15 interviews form the foundation for many possible avenues of continued research in the professional ethics of RPFs in BC. Considering the high degree of variation expected (and witnessed) in the participant's responses and ideas, a small, focused dataset is appropriate in order to judge how much variation might be expected from the sample population, and several themes were noted and discussed. In turn, the data suggest that more sampling is required to achieve 'saturation', where no new coding categories are observed and a central theory can be described in all of its complexity (Creswell 1998). The coding scheme developed for the interview data supports some initial theories of how the discretion of RPFs is shaped, and how RPFs perceive their ethical deliberations. As an exploratory investigation this study introduces a useful methodological approach, and has opened the door to further investigations. To augment the grounded theory approach initiated by this study, researchers would return to the field to pursue additional interviews, a process that would continue until the aforementioned 'saturation' level is achieved.

Four central discussion points were used to help focus the research interviews and better address the broad research question:

1. What types of ethical situations are encountered by RPFs and what aspects cause them to be defined as ethical (rather than practical or political, for example)?
2. How are decisions involving a conflict of ethical principles differentiated from decisions that involve a conflict between more practical considerations (such as legal, political, or monetary)?
3. What resources are used by the participants to support their deliberative processes?
4. What constraints to discretion are perceived by the participants?

These points formed a basis for the interviews and helped to structure the discussion of this thesis. However, the discussion also explores some of the major themes that were revealed by conducting an analysis of the interview data based on a constructivist grounded-theory approach.

### **1.3 Overview of the Thesis Document**

Section 2 expands on several concepts and terms that are used in the discussion. First is a brief consideration of the philosophical concept of *ought presupposes can*, which is the basis for understanding how an expectation of ethical agency implies the assumption that RPFs possess the ability to fulfill this expectation. Second is a more in-depth explanation of what is meant by ethical agency as it applies to RPFs. Next is a discussion of the concept of *discretion* that an RPF might possess in a particular decision or activity. This section suggests that the context which guides a professional's discretion is dependent on the standards by which they must abide. Part of this discussion includes a brief treatment of the differences between standards of guidance that are principle-based and open to interpretation and those that are rule-based and more inflexible. I also describe the nature of an RPF's scope of practice in BC, including a review of the legal definition of the practice of professional forestry and the socio-political role of the RPF. Lastly, I close these initial topics with a reflection of how employment introduces the principal-agent relationship in the professional role of the RPF. The thesis then moves on to a more traditional format: methods, results, discussion and conclusions.

## 2 Ethical Accountability: When the Ought Exceeds the Can

If we say that a forest professional ought to engage in ethical decision-making, is it fair to assume that they always can? And are they always accountable if they are not able to do so?

*Ought presupposes can* is a contentious concept in philosophy and, simply stated, it means that if you are expecting someone to do something then you are assuming that they are able to do it.<sup>9</sup>

The philosophical problem arises because a descriptive statement, “Sarah can do something”, does not logically lead to a normative statement, “Sarah ought to do something”. The concept becomes socially contentious because it is unfair to oblige someone to do something that they can not do and subsequently hold them liable for not doing it. Koehn’s suggestion that a professional should not be held accountable for factors over which they have no control (Koehn 1994) clearly suggests that the ought-can concept is a shaky foundation for judging a professional’s conduct in a fair way. For example, despite an RPF being obligated to an ethical agency with respect to forest resources, it would seem unfair for society to expect an RPF to provide a particular resolution to an ethical issue when mitigating circumstances prevent the professional from achieving the desired result. When external factors cause a gap between what society feels the RPF *ought* to do and what the RPF *can* do, given the circumstances, the ethical accountability of the RPF must reflect some measure of these situational limitations.

The accountability of an RPF comes into question when the *ought* exceeds the *can* in three ways. First, if the reasonable wishes of society are achievable and yet they exceed the ability of a particular professional, then the inability of the professional must be addressed. For example, if society feels that an RPF ought to be responsible for lessening the forest fire hazard in areas

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<sup>9</sup> Generally attributed to Immanuel Kant, this concept was subsequently refuted by David Hume who felt that a statement of fact (someone can do something) could not produce an evaluative conclusion (someone ought to do something). The concept has received much attention ever since (see Brown 1977, Collingridge 1977, or Sinnott-Armstrong 1984). My thesis is not intended to resolve the philosophical difficulties of this concept, only to use it as a way of discussing disparities between the expectations of society and the ability of the professional.

where public forests are adjacent to urban developments, then the RPF needs to be given the ability, in this case the legal authority, to make the necessary physical changes to both the public and private properties. Second, if the wishes of society are unattainable by any reasonable standard of a professional's ability then the *ought* should be moderated so that it can be sufficiently addressed. For example, if a community group feels that an RPF ought to regenerate a harvested area in a time frame that is far shorter than what is biologically possible then the community's desires need to be adjusted. Third, if the *ought* is generally reasonable, but in some instances can not be sufficiently met by a reasonably capable professional, then there needs to be an appreciation of the circumstances that prevent the professional from being able to do what they ought to do. This last scenario is not as easily resolved as the first two because it allows the ought-can concept to be illogical; society can oblige a professional to do something that in some cases may not be possible. Of course, if the *ought* is not obligatory then the failure of the professional to sufficiently comply would not constitute the failing of a social expectation. However, if the *ought* is obligatory then the nature of the ought-can relationship must be more vigorously defined so that both the practitioner and society agree on the circumstances under which a professional is accountable for not being able to do what they ought to do. Hence, to understand how ethical accountability arises from this gap between the *ought* and the *can* we need to first consider the way in which ethical *oughts* have been made obligatory for the RPF.

## **2.1 Oughts, Ethics, and Obligations**

*ought*; *that which should be done, expressing a moral imperative*

*eth-ics*; *the rules of conduct recognized in certain associations or departments of human life*

*ob-li-ga-tion*; *what one is bound to do; a duty, commitment* (Oxford English Dictionary)

In a liberal society *oughts* are based on generally accepted social values or norms (also called morals or mores) and they take the form of normative statements regarding what one ‘ought to or ought not to do’. The purpose of these normative statements is to guide the behaviour of individuals in a society or culture. An *ought* can be as simple as a polite consideration such as one ought to hold a door open for the person entering or leaving behind them. Although etiquette is related to how individuals conduct themselves in the interests of others it would not be commonly considered a matter of ethics.<sup>10</sup> For example, a simple ethical situation might be finding a wallet where the owner’s contact information is clearly displayed, but the wallet also contains a substantial sum of money. It is a polite consideration to make the effort to return the lost wallet to its owner, but it is an ethical choice to return the wallet with or without the money still inside. Similarly, in forestry there are many normative statements that stem from society’s desire to protect specific interests and forest resource values. Many of these normative statements have been written into legislation such as the specification of management values by the *BC Forest and Range Practices Act* (BC Gov 2002).<sup>11</sup> These legal obligations in themselves are also not a source of ethical direction. Once society has clearly defined the right and wrong choices for a particular value then choosing between right and wrong is not considered an ethical dilemma (Kidder 1996). Granted, the RPF’s behaviour in choosing an illegal course of action may become a question of ethics, but this would be based upon different set of norms than those used to define the management values. Hence, the *oughts* or normative statements that form the basis for an RPF’s ethical agency are the professional norms that guide their ethical conduct, and not just any normative statements related to their professional activities.

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<sup>10</sup> I am suggesting here that ‘ethics’ relates to conduct that has a certain moral weight, and not just simple matters of courtesy. I am also adopting a normative approach to ethics where the majority of normative statements we consider to be truly ethical are both deontological (duty-based) and teleological (consequence-based). See O’Connell 1994 for an excellent discussion of philosophical approaches to defining what qualifies as ‘ethical’ behaviour.



Professional norms are a combination of specified norms that are unique to a professional activity and ordinary norms which apply to all members of society (Bayles 1981). For example, in North American society the values of honesty and integrity are accepted as ordinary social norms, so it would be considered unethical for an RPF to mislead a client regarding the fair cost of performing a particular activity. The ordinary social norm of honesty does not need to be further specified to create a professional norm that applies to an RPF. However, due to an imbalance in the knowledge held by the professional as opposed to the client as to what the service should cost, “to levy only those charges for services rendered that are fair and due” is made an explicit professional ethic for RPFs (ABC FP 2003). Conversely, professionals often encounter ethical situations that are distinct from those experienced by general members of society. This is because professionals have to respect the tenets of their professional society and they are charged with resolving dilemmas that are particular to a licensed activity. For example, if a seriously ill patient refuses life saving treatments then a physician must consider choices that are not commonly deliberated by members of the general public. One of the professional norms particular to the role of the physician could be expressed as ‘first, do no harm’. This norm is not part of a completely separate set of unique norms used by physicians (which would suggest ethical relativism) but a norm specific to medicine that is justified by the values of society (the desire to respect life and alleviate suffering).

Normative statements in general are not intrinsically obligatory; they are transformed into duties by becoming social or legal standards.<sup>12</sup> For this reason Bayles divides professional norms into those that are expressed as obligations and those that are permissions. Permissions are not obligations because they merely authorize or approve of a particular action by the professional

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<sup>11</sup> Under the *Forest and Range Practices Act*, the *Forest Planning and Practices Regulation* are objectives for managing soils, timber, water, fish, wildlife, biodiversity, and cultural heritage resources.

but do not require that the action take place. Obligations are prescriptions as to “what is right or wrong to do (or not to do) or be” and can be expressed as standards, principles, or rules (Bayles 1981: 21). For example, an RPF is *permitted* to hold opinions that differ from other professionals but they are not obligated to do so. However, should an RPF choose to have a difference of opinion with a fellow professional he is then *obligated* by the rule “to abstain from undignified public communication with another member” (ABC FP 2003). As this example shows, the ABCFP has prescribed the obligatory professional norms for RPFs in a Code of Ethics.

## **2.2 Ethical Agency and the RPF’s Code of Ethics**

agen-cy; *working as a means to an end* (Oxford English Dictionary)

The ABCFP Code of Ethics (the Code) is not focused solely on those professional norms that direct an RPF’s ethical agency. The Code broadly identifies four categories of ethical responsibilities; the public, the profession, the client or employer, and other members (ABC FP 2003). A distinction can be made between those responsibilities that are intended to further the interests of the profession and those that are intended to further the interests of society as a whole (McDonald 1991). Given that a professional’s primary role is to serve society McDonald states that two of the categories, the responsibilities to the profession and to other members, are “ancillary” in that they are in place only to ensure the integrity of the professional association and not to ensure the ethical practice of specific professional forestry activities. They do not relate to the specific claimants or beneficiaries to whom forest professionals provide their professional service and are also “inadequate to justify society’s granting of self-discipline and self-regulation” (McDonald 1991: 137). It is the remaining two categories of responsibility

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<sup>12</sup> This is obviously leads into a discussion of principle-based versus rule-based standards of conduct which I will be address in more detail in Section 2.3.2.

identified by the Code, a member's responsibility to the public and a responsibility to the client or employer, that obligate RPFs to promote the public's interests. It is therefore these portions of the Code which guide an RPF's ethical agency.

Duties are listed under these two responsibilities that further prescribe the ethical conduct of forest professionals and these take several forms. Following from Bayles' types of obligations (standards, principles, and rules) most of the duties in the Code would be characterized as principles. For example, an RPF is responsible for placing professional principles above the demands of employment. Only some of the duties take the form of rules where there is little room for interpretation, such as the direction to not "disclose confidential information without the consent of the client or employer except as required by law" (ABCFP 2003). Very few of the duties are expressed as a standard that must be further prescribed. For example, if a member must "practice only in those fields where training and ability make the member professionally competent" then the definition of 'fields' must be made explicit as well as the desired level of competence for that particular field.

Many of the duties are based on ordinary norms that have been applied to the practice of forest professionals – norms such as honesty, integrity, loyalty, and respect for others. However, the standard of forest stewardship is a norm that is specific to the practice of professional forestry and deserves special attention. The ABCFP clearly identifies forest stewardship as a central professional ethical obligation and the guiding professional norm for an RPF's ethical agency. It is described as a process of deliberation "based upon an ethical responsibility to the land and the place of people in the natural world" (ABCFP 2004a) that "requires management decisions which balance many social values" (ABCFP 2006b). Forest stewardship "speaks to doing the

correct or right thing” and is ultimately the “crucible through which all professional decisions are evaluated” (ABCFP 2004b).

An RPF’s ethical agency is structured by the prescribed responsibilities and duties that are provided in the Code. It provides the *oughts* desired by society regarding how RPF’s are expected to sufficiently resolve the ethical issues that they encounter in the course of their professional practice. The most important of these is the standard of forest stewardship which is clearly identified as the ‘end’ that society desires the RPF to achieve as their ethical agent with regard to forest resources.

### **2.3 Ability is Discretion**

*abil-i-ty; the quality in an agent which makes an action possible* (Oxford English Dictionary)

The quality most commonly associated with ability is competence, however, Matherne and coauthors suggest that to behave sufficiently as an ethical agent one must have “the ability to make decisions that involve ethical dilemmas consistent with an individual’s ethical standards and professional standards of practice” (Matherne et al. 2006: 106). The ‘ability’ is not related to personal competence; rather it is whether or not the ethical agent is able to be consistent with their own professional and personal standards. It follows from this definition that the ‘ability’ of an RPF to act as an ethical agent requires that they possess a sufficient level of *discretion* to ensure that their decisions are consistent with the standards involved in their professional practice. Hence, rather than assessing an RPF’s accountability by measuring competence, we must understand the concept of discretion, the influences on it, and how it may promote or hinder an RPF’s ability.

### 2.3.1 Discretion as a Product of Context

*Discretion, like the hole in a doughnut, does not exist except as an area left open by a surrounding belt of restriction. (Dworkin 1978: 31)*

con-text; to form, construct, or compose as by interweaving of parts (Oxford English Dictionary)

Ronald Dworkin's conception of general discretion as the "hole in a doughnut" is an informative basis for understanding how RPFs experience discretion in their professional practice. In the literature related to professional ethics discretion is often referred to as being a professional's duty to respect the confidentiality or privacy of a client by 'being discreet' (Bayles 1981) or it is the extent to which a professional can make decisions on their client's behalf (Koehn 1994). Often discretion is thought of as something that is given or granted, akin to granting a level of authority. However, Dworkin's definition approaches discretion slightly differently. It is not only the authority to make a decision, but also the latitude of choice; the specific range of interests and values that a forest professional has the authority to promote or disregard in order to make their decision. Dworkin states, "The concept of discretion is at home in only one sort of context; when someone is in general charged with making decisions subject to standards set by a particular authority" (p. 31). Deconstructing this definition we can see that in professional forestry, as it is practised in BC, the "someone in general" is the licensed forest professional who is "charged with making decisions" specific to the practice of professional forestry. There are several authorities who deliver this charge to the RPF including the provincial legislature, the executive branches of government, and their specified agents (such as the ABCFP). Through legislation, regulations, bylaws and guidelines these various bodies define the legal "surrounding belt of restriction" within which forest professionals make their decisions. Of particular importance to RPFs are the standards introduced by the Ministry of Forests and Range (MFR)

who oversee the use of public forest resources and the ABCFP who oversee the registration and conduct of forest professionals.

Dworkin also makes an important distinction between ‘stronger’ and ‘weaker’ senses of discretion. Discretion in the stronger sense suggests that a person is “not bound by standards set by the authority in question” (p. 32). For example, if the MFR stipulates that an RPF is legally responsible to regenerate an area after harvest, but specifies nothing else, then the RPF has been given discretion in the stronger sense. In this simplified case where there are no additional stipulations regarding the activity of regenerating the stand, the MFR has not bound the RPF to specific standards. Obviously this changes very quickly to discretion in a weaker sense once the MFR imposes additional standards in addition to the broader stipulation. It is important to note that a ‘weaker sense of discretion’ is not meant as a negative distinction or one which removes the expertise of the professional, rather it means that the standards which shape the discretionary space have narrowed the range of choices for the decision-maker. For example, the reality in BC is that there are numerous regulations and standards that apply to regenerating an area after harvest, such as approved methods of site preparation, appropriate seedling species selection, and approved stocking levels. An RPF’s discretion on how to regenerate an area exists in the ‘weaker’ sense because they are confined in their judgment to the standards that the authority in question has put in place, such as having to choose from the suggested methods for site preparation. Discretion may also be made weaker in another sense when it indicates that the higher authority looks after certain decisions, but identifies particular cases where it will not substitute its own judgment for that of the RPF. For example, an RPF is considered to be in the best position to dictate the timing of mechanical site preparation when it is dependent on the use of a particular piece of equipment and specific site conditions. Hence, the MFR might stipulate that mechanical site prep may occur ‘at the discretion of the RPF’ meaning that, although the

RPF has no choice as to the site prep occurring, the MFR will not substitute their judgement for the RPF's regarding the timing of the activity.<sup>13</sup> In summary, an RPF's choices may be tightly constrained (discretion in the weaker sense) or may be largely without guidance (discretion in the stronger sense).

The context which shapes the discretion of the RPF (the discretionary context) is highly idiosyncratic to particular situations and decisions. It follows from Dworkin's definition of discretion that if the discretionary context is idiosyncratic then the "hole in a doughnut" or the RPF's discretionary 'space' is similarly affected. This idiosyncrasy is a product of both the legislative standards which govern forest management activities and the socio-political framework of public forest management in BC. Expanding on Dworkin's analogy of likening discretion to the hole in a doughnut, rather than the stable and dense ring of a doughnut the discretionary context of professional forestry is more akin to the probability-ruled cloud of electrons surrounding the nucleus of an atom. The standards related to professional forestry and the management of forest resources surround a nucleus containing all of the possible professional decisions that can be made by an RPF. When the nucleus is reduced to a particular situation or decision, it reduces the surrounding cloud of standards down to a network of only those standards that are applicable. The context formed by this network of standards related to the situation or decision is the discretionary context that forms the discretionary space. An RPF's judgment is confined to this space within which they deliberate a resolution to their situation or decision. Hence, there is a myriad of possible contexts that can result from the combinations of standards that apply to specific situations and decisions, and therefore a myriad of possible discretionary spaces. However, a discretionary context is not just a product of this network of

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<sup>13</sup> This example of post-harvest regeneration requirements is for illustrative purposes only and should not be taken to reflect the actual requirements that are specified by the *BC Forest and Range Practices Act*.

standards. Discretion is also a product of the manner in which an RPF is “charged with making decisions” or in other words the role that they play in affecting the standards that they are given. Therefore, to truly understand what constitutes the RPF’s discretionary context we must consider both the network of standards that are particular to professional forestry activities and also the socio-political structure of public forest management in BC which dictates the role of an RPF in a particular situation or decision.

### 2.3.2 Context is a Product of Standards

Standards are the choices an RPF has open to them within a particular situation or decision. The unique combinations of these standards is the basis for the idiosyncratic nature of the discretionary context. Hence, it is difficult to discuss the specific impact of these standards in shaping a discretionary context when there is a multiplicity of possibilities. In general, however, we can divide standards into rule-based or principle-based forms of guidance.

A rule-based approach is when standards are made explicit, leaving little room for judgment by the professional as to what behaviour or choice is expected. The rules are determinate and “they apply in an all-or-nothing fashion” (Bayles 1981) such as encountering a “Stop” sign while driving; either one stops fully at the sign or one has not obeyed the law. Legislation, regulations, policies, bylaws and guidelines are usually examples of rule-based standards and they are often generated to direct behaviour towards socially accepted interests such as protecting social and environmental values, guiding professional conduct, or mitigating safety concerns. Because rules are automatically applicable to specific situations or decisions these standards do not require any action by the RPF to incorporate them into the discretionary context.



A principle-based approach identifies responsibilities rather than providing strict guidance. As with rule-based standards, principles can be expressed in legislation but rather than being explicit they are implicit and left open to interpretation, allowing for the judgment of the professional (Bayles 1981). They are often used to ensure the consideration of complicated values that lack definitive choices. For example, the need to accommodate the values of special interest groups, stakeholders, and local communities, can be guided by principle-based legislation such as the legal requirements under the *BC Forest and Range Practices Act* for First Nation consultation and accommodation on operational plans. Principle-based standards can also arise from the professional authority of the RPF themselves based on their ethical obligation to forest stewardship, and their personal values, knowledge and experience. For example, an RPF may be against using certain allowable harvesting techniques desired by their employer or client if their previous experience has shown that the techniques would be detrimental to regenerating the forest after harvest. In this case an RPF becomes an integral part of building their own discretionary context by introducing principle-based standards. As opposed to rule-based standards, principle-based standards are not automatically applicable to a situation without some degree of interpretation. An RPF's ability to interpret principle-based standards and include them as part of their discretionary context is largely dependent on an RPF's role in a decision. This role is dictated by an RPF's scope of practice and the nature of their employment.

### 2.3.3 Scope of Practice

The cloud of standards that form Dworkin's "surrounding belt of restriction" to an RPF's discretionary space has a finite limit which is defined by the activities that legally constitute the practice of professional forestry.<sup>14</sup> In general, the practice of professional forestry is structured in

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<sup>14</sup> Very simply, if an RPF is not acting in a professional capacity then they are not acting as an ethical agent on behalf of society with regard to forest resources and those actions do not require professional discretion.

three specific ways (BC Gov 2004). First, forest professionals are only legally responsible for actions or services whose “scope and implications” affect forests, forest lands, forest resources, and forest ecosystems. Second, the practice of professional forestry requires registered individuals to possess “specialized education, knowledge, training and experience.”<sup>15</sup> Third, an action performed by a licensed individual that qualifies as professional must include three components; it must be one of the identified activities (such as to plan, to assess, to protect), the activity must be intended to produce a particular outcome (such as an appraisal, the conservation of something, a component of silviculture), and the activity must in some way impact one or more of forests, forest lands, forest resources or forest ecosystems. Therefore the RPF’s discretionary context begins when one of these professional activities is initiated.

Although registration with the ABCFP legally entitles an RPF to perform any of the activities within the definition of professional forestry, an RPF is limited to their scope of practice. A professional’s scope of practice narrows the range of potential professional actions down to only those which an RPF is competent to perform (those activities in which they have experience and knowledge). A scope of practice does not affect an RPF’s discretion by imposing standards that limit his judgment or replace his autonomy, it merely limits an RPF’s range of potential activities. It is rare that an RPF’s scope of practice extends beyond the professional activities that he engages in on a regular basis, and often it is defined by those activities that are required by his employment. For example, consider an RPF employed by a private-sector employer, a major licensee. The RPF is responsible for a team of fellow professionals who are preparing a cutting permit that will be submitted to the MFR for approval. The RPF’s scope of professional activities are limited to only those required by their employer and the MFR for the preparation of the

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<sup>15</sup> BC *Foresters Act*, Section 1. The definition of what specific education, knowledge, training and experience is made explicit by ABCFP Bylaw 5 (ABCFP 2003), the ABCFP Enrolment Policy (ABCFP 2006a), and the ABCFP Academic Standards (ABCFP 1995).

cutting permit. They may have expertise in other activities such as collecting inventory information on forest ecosystems or analyzing the capability of forest lands to yield a flow of timber but these activities are not required by the needs of their employment or a specific task. Obviously an RPF's scope of practice and their employment circumstances can change over time. An employer can request that an RPF take on other duties that they have the skill to perform, or assign them new responsibilities in which the RPF must become competent through further education, training, and experience. An RPF may also wish to change employers or become self-employed and change or expand their scope of practice. However, an RPF will always have a finite number of professional activities that they have the potential to perform, and this in turn forms a finite limit to their discretionary context. The role an RPF plays in a decision is dependent on how they are employed, which is a result of the socio-political structure of public forest management in BC.

#### 2.3.4 Socio-political Framework and Employment

The socio-political structure of public forest management in BC begins with the provincial government, which controls and allocates the rights to access and use public forest resources through their agent, the MFR.<sup>16</sup> The MFR has a broad mandate “to manage and conserve forest and range resources for short- and long-term socio-economic benefits, to protect and sustain forest productivity and to encourage competitive forest and range industries, while asserting the financial interests of the Crown” (BC MFR 2007). This broad mandate creates numerous roles for RPFs in the protection, conservation, development, and enhancement of forest resources. Within the public (government) sphere this mandate is exercised through a three-tiered decentralized organizational structure consisting of headquarters, regions, and districts, each

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<sup>16</sup> There are other government agencies who set standards related to forest resource use, such as the Ministry of Environment, however, the mandate of the MFR is obviously the most specific.

made up of multiple branches and departments. The authority given by the legislature to the MFR for allocating and overseeing the use of forest resources becomes similarly decentralized throughout these organizational levels. The subsequent transition of this public authority to the private sphere is overseen by the MFR's organizational structure and permitted through the allocation of a series of short- and long-term tenure (licensing) agreements, cutting permits, and forest use agreements that allow access to the resources of public forest lands. Each form of agreement details various requirements for the planning of resource extraction, such as the procedures for logging and the dispensation of the timber harvested. In turn, the private license holders must organize the planning, access, and process of extraction (or *in situ* use) which often involves further levels of privately operated services. For example, with timber harvesting the licensee must plan the harvest, transportation, and sale of the timber, as well as carry out any pre- and post-harvest silvicultural requirements (such as replanting and stand tending). The result is a complex arrangement of public and private organizations and businesses that work together to fulfill the legal, logistic, and operational aspects of how the provincial legislature governs BC's public forest resource. This arrangement institutes a distribution of authority and responsibilities across the public and private spheres and RPFs are employed to take on these specialized roles.

In a broad sense, the nature of an RPF's employment serves to identify groups of RPFs that share similar professional roles. The validity of this approach is exemplified by the ABCFP which stratifies each of its members into one of three employer categories; government, industry, or consulting.<sup>17</sup> Each category reflects the professional activities required by a particular role, the general range of decisions that the RPF may make, and the kinds of interactions one can expect among professionals between employer categories. For example, foresters who are employed by

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<sup>17</sup> These categories are used in the membership surveys conducted by the ABCFP (see *ABCFP 2006 Salary Survey: Report on Members' Compensation & Benefits*).

forest license holders (categorized as ‘industry’ foresters) commonly deal with operational and planning decisions. They have direct interaction with other forest resource stakeholders and must make decisions related to the environmental impacts of resource use activities. They often hire other forest professionals (categorized as ‘consultants’) to perform professional activities on their behalf, and they interact with ‘government’ forest professionals to gain approval for management activities on public lands or to prove that management obligations have been sufficiently met. RPFs employed by the government commonly deal with approving or disapproving management activities on public lands, often in a delegated decision-making setting where a District Manager (also an RPF) holds the statutory decision-making authority. RPFs who are self-employed or work for consultant businesses provide services to clients in both of the other employer categories or to members of the general public. They engage in a variety of activities but generally maintain a business niche particular to a scope of practice. Consultants also have varying degrees of professional responsibility. For example, some are in a delegated decision-making role similar to that of RPFs employed by government. The difference being that government professionals are excluded from statutory authority due to the organizational structure of the MFR, while the client of the consultant simply retains the responsibility to make a final decision. Conversely, some clients hire consultants to complete professional declarations and the consulting RPF must assume the full professional responsibility for their decisions.

### 2.3.5 Employment and the Agent-Principal Dilemma

The differences in the roles of the RPF based on their employer reflect a certain degree of the principal-agent dilemma that arises when considering to what extent an RPF may represent their employer’s interests. The initial premise is that a professional (the ‘agent’) acts on the behalf of their employer or client (the ‘principal’) to provide an expert service and to represent their employer’s or client’s ends and interests (Bayles 1981). The previous section describes three

employer categories across the divisions of authority and responsibility in the public and private sectors. Most forest management activities require the participation of multiple forest professionals who complete or oversee various aspects of the activity, and it is not uncommon for their employers to have competing, if not conflicting, interests. For example, a cutting permit application requires RPFs in all three employer categories to interact and provide input. Each RPF has a principal-agent relationship with their employer or client, and they are expected to advance the interests of their employer. The licensee obviously has an interest in seeing the permit completed as quickly and as inexpensively as possible, the government has an interest in ensuring that the permit has met all applicable standards and has been vetted by all parties who are affected by the proposed development, and the consulting professionals have an interest in promoting their own professional opinions and ensuring that their clients' needs are sufficiently met. The level of agency that RPFs exhibit for these different interests has the potential to generate conflict among the professionals. However, Bayles suggests that the agency view should break down at this point because "professionals have obligations to third persons that limit the extent to which they may act in behalf of client interests" (Bayles 1981: 62). For example, a prosecuting and a defence lawyer represent opposing clients but they are both held to a common ideal of justice and the rule of law which benefits all individuals. Similarly, under the *BC Foresters Act*, and subsequently through the bylaws of the ABCFP, RPFs have been given a superseding direction "to uphold professional principles above the demands of employment" (ABCFP 2003). This is obviously intended to mitigate the principal-agent dilemma by providing a common ground for all RPFs irrespective of their employer. As a prescribed professional norm this direction is also intended to provide an obligatory duty that keeps an RPF's ethical agency aligned with promoting the public's interests ahead of private or political agendas.

## 2.4 Ethical Accountability

ac-count-abil-i-ty; *liability to give account of, and answer for, discharge of duties or conduct*  
(Oxford English Dictionary)

The difficulty of the ought-can concept as it applies to the RPF can be summarized as follows:

The *ought* or normative basis underlying an RPF's obligatory ethical agency is defined by the duties prescribed in the *Code of Ethics*, most notably the broad standard of forest stewardship.

The *can* (or ability) of the RPF to act as an ethical agent and be consistent with the personal and professional standards of their ethical agency is dependent on the extent of their discretion.

Because discretion is context-dependent one can not assume that an RPF can exercise the same level of discretion in every situation or decision. The desired *ought* can not assume the necessary *can* and so the ethical obligation to ensure forest stewardship may or may not be sufficiently met by all RPFs in every situation.

Clearly, if an RPF fails as an ethical agent because she lacks the competency to recognize and consider important values and interests, or because she simply ignores the issues she encounters, then it seems justified to hold her accountable for her failure. This reflects a 'regular' instance of accountability where the goal is to identify a mistake or a poor choice. This differs from considering a professional's *ethical* accountability which reflects the manner in which a professional engaged in ethical deliberation. If an RPF experiences constraints in a particular situation or decision that are beyond her control and affect her ability to sufficiently deliberate a resolution, we must consider the three possible scenarios previously discussed that result from an *ought* exceeding the *can*. We can take the necessary steps to adjust the RPF's discretion (by removing the necessary constraints) to allow the ethical standard to be met, we can relax the ethical standard (and accept the constraints) to make it more inline with the RPF's level of

discretion, or we can accept that an insufficient resolution is an acceptable outcome because neither the ethical standard nor the level of discretion can be adjusted. In the case of the RPF, the *ought* has already been given a degree of latitude to accept constraints (the second scenario) because an RPF's central ethical obligation, the standard of forest stewardship, is expressed as a process rather than a specific end result to be achieved.<sup>18</sup>

Ethical accountability is a measure of the dynamic tension between the ethical obligations of the RPF and their discretion. Ethical accountability not only takes into consideration the values and interests that should be considered in a particular situation, it also assesses if the RPF is able to employ their personal and professional ethical standards to address these values and interests. In a practical sense this means that ethical accountability can not be based solely on the expectations prescribed by the *Code of Ethics*. To be fair to the practitioner it must also address how limits to their discretion affect their ability to act as an ethical agent.

## **2.5 Summary**

This section has introduced several concepts that will be used in the discussion of the interview data, including discretionary context, discretionary space, principle and rule-based standards of guidance, the principal-agent aspects of professional employment, and ethical agency. Overall, it is important to appreciate that the choices that an RPF makes are limited by their discretion, and their discretion is limited by the context. The context is a product of both explicit and implicit standards. The explicit standards are easily traced through legislation and the *Code of Ethics*, whereas the implicit standards are less easily understood. How an RPF perceives the discretionary context of the ethical situation or decision that they are deliberating is the basis for

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<sup>18</sup> ABCFP Bylaw 12.6.1 states that “members demonstrate stewardship by balancing present and future values against the capacity of the land to provide for those values” (ABCFP 2003).



understanding their actions. This thesis therefore investigates a method of bringing an RPF's perceptions into a more analytical light to illuminate both the broad discretionary context and specific factors which most influence the shape of their discretion.

## **3 Methods**

### **3.1 Problem Statement and Introduction to the Research**

RPF's are expected "to uphold the public interest respecting the practice of professional forestry"(BC Gov 2004)<sup>19</sup> and to ensure that their decisions and actions are consistent with the standards of forest stewardship (ABC FP 2006). As outlined in the Code, the standard of forest stewardship is a thread that runs throughout an RPF's ethical agency, an agency whose primary stakeholders are the public and their employer or client. In tension with this expectation of stewardship is a plurality of implicit and explicit standards, and the roles and responsibilities that arise from the socio-political framework of public forest management in BC. If a professional fails to make a decision that is consistent with the wishes of society, or appears to not meet the standard of forest stewardship, the fault may lie in the authority and network of standards that make up the context of their discretion. The idea that the context of a decision or activity places limits on the discretion of the decision-maker is not contentious, but I would suggest that the discretionary context of the forest professional is poorly understood. The ABCFP's categorization of RPFs into three employer categories is an indication that professionals experience differing roles and levels of authority in the broad political framework of forest management in BC. Without an understanding of what happens at a practical level it would be difficult to respond to a public complaint as to whether or not an RPF sufficiently acted as an ethical agent on behalf of society. If we feel that an RPF can be considered professionally ethical in achieving what is possible when they can not achieve what is socially desired, then ethical accountability must reflect the practitioner's discretion in a specific situation.

There is little in the literature that examines how RPFs identify the ethical dimensions of their decisions, how they conceive of their role as an ethical agent, and the affect of discretion on the

quality of their ethical decisions. There are certainly articles regarding the general ethical expectations for professional foresters (Lammi 1968; McDonald 1991; Irland 1994) or articles which discuss the conceptual basis for ethics in professional forestry (Wood 1991; Irland 1994; Friesen 1998; List 2000). There have also been Codes of Ethics developed for professional forestry associations in North America resulting in much discussion regarding the interpretation and implementation of the standards these codes contain (Irland 1994; SAF 1996; ABCFP 2004; ABCFP 2006). The rationale behind prescribing standards for professional ethics in forestry has been well documented, but an academic treatment of the practical implementation of professional ethics has been largely ignored. Other professions have devoted much study to their ethical practises, such as a framework for clinical practice outlined for health caregivers (McDonald et al. 2001), one for marketing (Ferrell and Gresham 1985), or one for social workers (Hartsell 2006). It is more common to find literature related to the general philosophical basis of professional ethics (Bayles 1981; Callahan 1988; Kultgen 1988; Koehn 1994; O'Connell 1994) and the application of ethics in decision making (Spitler 1988; Berry 1993; Kidder 1996). The absence of specific literature regarding professional ethics in forestry at a practical level suggests that a broadly constructed baseline understanding of how practitioners incorporate ethical agency into their decisions is necessary to facilitate further discussions of ethical practice in professional forestry. It is hoped that this study informs future research and contributes to an understanding of what factors influence the discretion and ethical agency of RPFs in BC.<sup>20</sup>

In the Fall of 2007 interviews were conducted with RPFs in the Southern Interior of BC. The purpose of the interviews was to allow RPFs to present, in their own words, a situation that they encountered in the course of their professional practice which they found particularly difficult or

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<sup>19</sup> Section 4:(2)(a)

<sup>20</sup> See Section 1.2 of the introduction for the full thesis question.

ethical in nature. During the interview they were also encouraged to discuss their decision-making process and the resources which they drew on to help them make these difficult decisions. Through an iterative process of analysis context and discretion emerged as important concepts related to ethical professional practice. The discussions with the participants give us a glimpse into how ethical deliberation occurs at a practical level in professional forestry.

### **3.2 The Analytical Approach Used for the Qualitative Inquiry<sup>21</sup>**

The interviews were analyzed by adopting a constructivist grounded theory approach in which coding, comparison, and emergent theories were a product of the researcher's interpretations. It is important to note that the study did not employ the full extent of a grounded-theory approach in which a substantive theory about the ethical deliberation of the RPFs interviewed was established. The central reasons for not doing so were the inexperience of the researcher, the limited sample size, and the lack of time and resources to complete such an extensive analysis.

The methodological approach is considered constructivist because it mirrors Mills and coauthor's approach to grounded theory in which the researcher is "the author of a reconstruction of experience and meaning" emphasizing "the subjective interrelationship between the researcher and the participant" (Mills et al. 2006). Because the researcher produces a "coconstruction of experience and meaning" (Mills et al. 2006 paraphrasing Charmaz) my status as a professional peer to the participants is an important factor in my analysis of their statements. As an 'expert' on professional foresters (the population being studied) I was able to rely on my initial conceptions about the nature of an RPF's professional discretion and how they approach ethical deliberation. This also led me to use the arbitrary categorization of RPFs established by the

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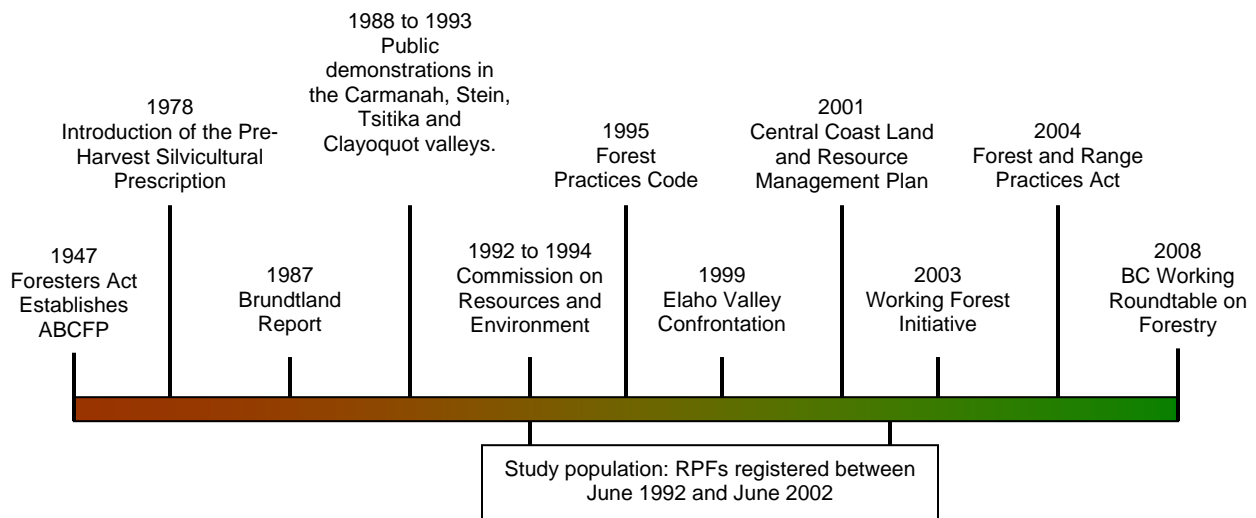
<sup>21</sup> In the interest of brevity I do not explain or define all of the terms used in this section related to qualitative analysis. Please refer to the authors cited in the text.

ABCFP based on a member's employer as a pre-stratification of my sample population. As outlined in the previous section, I felt that the role of the RPF (represented by their employer) reflected a central factor in the formations of their discretionary context. The results of the research seem to indicate that this stratification was warranted, and this is addressed in more detail in the discussion.

The coding of the interview data in this study employs a methodology based on the initial stages of grounded theory analysis, specifically open coding of the raw interview data to establish categories, followed by the formation of subcategories or properties (Creswell 1998; Heath and Cowley 2004; Mills et al. 2006). I employed a limited constant comparative approach during the initial coding of the data, reduced the interview text to paraphrases, and then completed a second pass of coding which coded the data back into the same categories or into new categories and subcategories. Because the study does not fully utilize a formal grounded theory approach the terminology of the coding stages used in the description of the methods (Section 3.6.1) was adjusted. In the first coding pass the open coded categories are referred to as 'major themes' and the subcategories or properties are referred to as 'sub-themes'. In the second coding pass sub-themes are called 'modifiers' to differentiate between the two coding regimes. Axial coding based on the selection of a central phenomenon of interest or a core category (or what Mills et al. refers to as theoretical coding) was not done as no single central phenomenon was established. The major themes used in this study were felt to represent several potential central phenomena but it was not within the time or resources of this thesis project to reduce these themes down to a single central phenomenon using additional interviews for confirmation, as would be done in a full grounded theory study. However, it is hoped that the major themes presented here may assist in the development of future studies where a central phenomenon might be defined.

### 3.3 Study Population

The study defined a cohort of professionals registered as RPFs with the ABCFP who had practised under an equivalent legal and social climate and who possessed similar years of experience (Figure 3.1).<sup>22</sup> The following specific criteria were used: (1) participants were active RPFs registered with the ABCFP currently practising professional forestry within the Southern Interior of BC, the “Southern Interior” being the geographic boundaries of the Southern Interior Forest Region as set by the BC Ministry of Forests and Range (MFR); (2) participants had been registered as RPFs for a minimum of five years and a maximum of 15 years, and (3) eligible participants were divided into three categories using the employer stratification created by the ABCFP; specifically government, industry, or consultant.



**Figure 3.1 Study population in relation to some events that have shaped the legislative and social environment of the practice of professional forestry in BC (not to scale).**

### 3.4 Participant Selection

Participants in each employer category list were assigned a random numeric key. The category list was then sorted according to this randomly generated numeric key from lowest value to highest value. Prospective participants were systematically drawn from each category list,

<sup>22</sup> Only RPFs who had released their contact information through the ABCFP were considered for the study.

beginning with the lowest numeric key value (the top of the list) and a request to participate was emailed to them. If a prospective participant declined to be interviewed the next member on the appropriate category list was selected and contacted. These requests were made until five participants from each employer category had confirmed their participation for a total of 15 randomly drawn participants (Figure 3.2). The 15 interviews represent a sufficient sample for the initial stages of a grounded theory method of inquiry, but are not considered a level of ‘saturation’ that support a central theme or phenomenon. For this reason several themes from this dataset are presented so that they may guide further interview-based research.

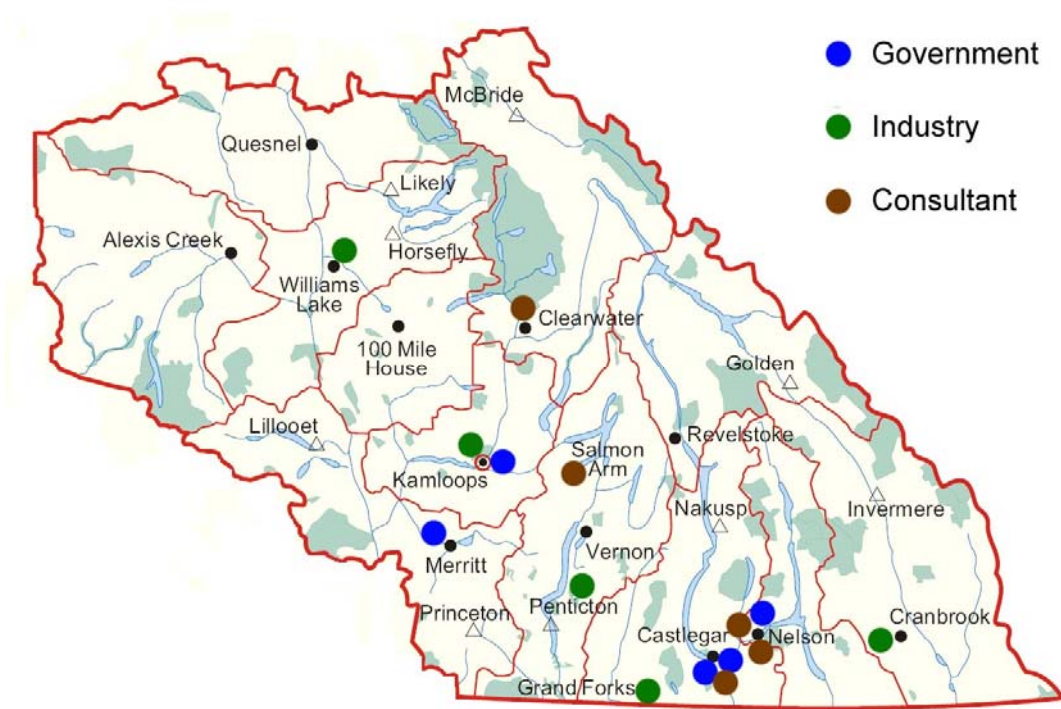


Figure 3.2 General location of the study participants in the MFR Southern Interior Forest Region of BC.<sup>23</sup>

### 3.5 Interviews and Data Handling

Prior to the interview participants were asked to prepare to discuss a complex decision or situation that they had encountered during the course of their professional career. It was

<sup>23</sup> Portion of MFR regional map graphic is used with permission.

suggested that they consider decisions which involved balancing conflicting values or situations that they felt involved ethical deliberation. The interviews lasted between one and one and a half hours. Interviews were semi-structured, meaning that a question schedule was not strictly adhered to. However, during the interviews a general interview schedule was followed to ensure that key discussion points were addressed.<sup>24</sup> Each interview began with a series of introductory questions about the participants' professional job duties and scope of practice to confirm that they fit the eligibility requirements for the study. After these preliminary questions the participant was then asked to relate the decision or situation that they had encountered using as much or as little detail as they wished. The remainder of the open-ended interview focussed on exploring the participant's perceptions of their own process of deliberation. The open-ended nature of the interview allowed the participant to take as much time as they needed to relate their experiences and allowed me the flexibility to more fully explore the participant's responses in a conversational style. The interview was closed with a general discussion related to any concerns the participant might have had regarding their responses and giving them an opportunity to voice any feelings or questions raised by the conversation.

Each interview was digitally recorded totalling 18.1 hours of audio recordings. Transcriptions were completed by myself resulting in 354 pages of single-spaced text. All interviews were strictly confidential, and an interview transcript was provided to those participants who wished to review them to address any concerns regarding confidentiality. Participants were also asked to review the case summaries that described the decisions or situations that they had discussed (Appendix II). This ensured that pertinent details were clarified, and that the veracity and confidentiality of the cases were maintained, increasing the construct validity of the study (Yin 2003).

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<sup>24</sup> These discussion points are provided in Section 1.2 of the introduction.



### **3.6 Data Coding and Analysis**

The data were summarized using qualitative data coding techniques to generate meaning from the text of the interviews, and analysed using quantitative data analysis to categorize and identify common ideas and concepts among the participants.

#### **3.6.1 Data Coding**

The coding of the transcription text of the interviews was done in two stages. First, a textual database of all interview transcripts was created using QSR International's N6<sup>®</sup> software where the full text of each interview was loaded into the software environment. Using the tools of the software, each statement in an interview was then coded and sub-coded to highlight the major themes and sub-themes of a participant's responses. A constant comparative approach was used, which meant that the coding was done by applying major themes and sub-themes from other interviews if they were appropriate, or creating new themes that were unique to that interview. As the coding progressed, previously coded interviews were constantly reviewed as new themes were discovered to see if the new themes were applicable. By moving back and forth between the interviews during the coding process it was possible to capture both the distinctive and overlapping range of ideas being expressed by all of the participants.

In the first pass of coding 10 major themes and 44 sub-themes were produced (Appendix III). Four of the major themes were created to highlight those portions of each interview that confirmed that a participant was consistent with the parameters of the study population. This information was not relevant to the analysis of the study and this text was excluded from the second stage of coding. The portions of a participant's interview that were coded as being descriptive of the decision or situation they were presenting to the researcher were used to

generate the individual case summaries (Appendix II). This specific text was also not relevant for the analysis and was excluded from the second pass of coding.

**Table 3.1 A comparison of the major themes generated in the first and second pass of coding.**

First Pass Theme		Second Pass Theme	Second Pass Theme Description
Recognition		Difficulty	The participant discussed why they felt their decision or situation to be difficult.
		Ethics	The participant discussed ethics as related to their decision or situation.
Responsibility		Responsibility	The participant discussed the level of responsibility that they had for the decision they presented or how they felt capable of resolving the decision or situation.
Decision Making		Decision	The participant discussed the specifics of how their decision was approached and considered.
		Influence	The participant discussed the influences on their decision that affected the values that they considered.
		Values	The participant discussed specific values they recognized as being part of the decision or situation that they presented.
		Resources	The participant discussed the resources they drew upon to resolve the decision or situation.
Situation		Legislation	The participant discussed how legislation affected their decision or situation.
		Professional	The participant discussed how being a professional was important in how they regarded their decision or situation.
		Public	The participant discussed how the public affected the way that they regarded their decision or situation.
Socio-legislative		Shift	The participant discussed how legislation or public perception has shifted and therefore affected an aspect of their professional practice.
Stratification		Stratification	The participant discussed the stratification of the profession into employer groups.
Practice Registration Confidentiality Career			Data excluded from the second stage of analysis.

The second stage of coding utilized a reporting feature of N6<sup>®</sup> to group together the text of similarly coded responses while maintaining the numeric participant key for each portion of coded text. These reports were exported to word documents producing 36 batches of text. The text of each report was then reduced by paraphrasing a participant's response or by retaining a portion of the participant's response that was representative of the idea being expressed. This

produced 767 separate text records which were entered into a Microsoft Excel<sup>®</sup> spreadsheet. During this text reduction process the major themes and subthemes from the first stage were used as a guide to recode each text record. Again, a constant comparative approach was used to produce major themes, some of which were the same as the first pass and some of which were based on subthemes that were felt to be more prominent upon a second consideration. Modifiers were introduced to indentify the more specific ideas or concepts that the participants expressed about a major theme. Modifiers were not unique to a major theme and hence a particular modifier could be used to describe a text record under several themes. The end result was a matrix of 12 major themes with 149 modifiers (Appendix IV, Table 3.1).

### 3.6.2 Data Analysis

Using the sorting and summary tools available in Microsoft Excel<sup>®</sup> the coded text records were organized and tabulated. The analysis was based on the incidence of the major themes and modifiers within a participant's dataset, rather than on their overall quantity. For example, one participant with 51 text records had six of those coded with the modifier 'legislation' (12% of their data) and only one coded 'environment'. However, in the summary table for this participant the modifier 'legislation' is not given any special weight, it is simply listed as having occurred in the participant's dataset. It is tempting to place some significance on 'legislation' considering that it seems to label a large proportion of the participant's data, or perhaps to consider it more important to the participant than the modifier 'environment'. However, the number of text records that are labelled 'legislation' only represents the number of times the idea was mentioned during the interview and does not reflect the importance of that idea to the participant. Importance can only be determined by returning to the text of the interview and understanding the participant's comments about 'legislation' within the context of the conversation. The analysis of modifier incidence is therefore used to capture the diversity and range of what the

participants discussed and to identify overlap in the ideas they expressed, and resulted in the summary tables and histograms provided in Appendices V to VIII.

### **3.7 Addressing Possible Issues of Bias**

Issues of bias are often perceived to be present in the type of qualitative research conducted for this thesis and so it seems appropriate to address the most obvious concerns. First, although participants were randomly selected their participation is not fully “random” as the selection of a name in the database did not necessarily equate to participation by that person in the field. Interviews were only possible if a prospective participant made a personal decision to be involved, to devote time to the interview, and to willingly share professional experiences of personal significance. Many individuals who were randomly drawn and invited to participate declined the offer. Hence, it is possible that those RPFs who agreed to be interviewed for the study may not be representative of those RPFs that declined to be interviewed, or of RPFs in general for that matter. For example, perhaps the 15 participants in this study are all particularly thoughtful professionals whose experiences are ‘out of the ordinary’, or they are people who are able to devote time to the interview as opposed to their busier (and more average) counterparts. A response to the charge of biased participation is best stated by Kvale, “The interview is sensitive to and reflects the nature of the object investigated, in the interview conversation the object speaks.” Further, “the interview is neither an objective nor a subjective method – its essence is intersubjective interaction” (Kvale 1996: 66). The interviews are part of a data collection process to generate an answer to a broad question, but each interview is unique unto itself. Each participant categorizes themselves through their own words and self-concepts regarding the topic of professional ethics rather than being stratified by an external, presupposed category. The interview data collection was not intended to highlight differences between individual RPFs, but to build a concept of overall professional ethical practice by accepting each

individual's experience as a legitimate and separate piece of the whole. It is not pertinent to this study to understand whether or not the participants are statistically significant or if an average quality of RPFs can be discerned. The purpose of the study is to provide reflection on how the ideas of each participant contribute to an overall concept of professional ethical practice. By remaining open to alternative views which may or may not be consistent with each other, I have the opportunity to bring forward both a diversity of conceptions about professional ethics and coherent conceptions that are shared by all of the participants. Hence, the process of random selection was used in this study as a means of removing the bias of the researcher when selecting participants and not as a method of balancing out the biases of the participants themselves. In addition, it is clear that no claim of 'saturation' can be made considering the number of interviews completed and the arbitrary nature of choosing only five participants per employer category. However, considering that the major themes often overlapped between participants within a single employer category suggests that the sample size supports a reasonable level of inference.

Second, one might also suggest that the experiences provided by the participants are not representative of the situations or decisions in professional forestry, or that the experiences in my data are too self-filtered. For example, a participant may not have wished to reveal their own professional malfeasance or an incident of negligence that resulted in environmental damage. The research sample admittedly obtained only a limited range of examples, and perhaps the participants consciously refrained from discussing topics that would place them in a bad light. The result would be a bias in the data towards presenting more positive or simplistic situations, less contentious decisions, or the perceptions of only those RPFs that have strong ethical convictions and highly ethical practises. Again, this is a question of whether the sample data collected allows for broader comment on all RPFs or a discussion of the relative ethical qualities

of the participants themselves. The fitting response to this concern is to reassert the purpose of the study, which is to discuss ethical deliberation in professional forestry as it is perceived by the practitioner. The purpose is not to make an assertion as to the moral quality of the participants or RPFs in general, nor is it to broadly equate the actions of the participants to all RPFs. Unethical RPFs and more extreme situations of ethical deliberation may exist but it is not necessary for these experiences to be included in this study and provide an arbitrary sense of balance. The understanding of the ethical deliberations of RPFs is an iterative rather than a definitive process and this study is a beginning, not a limit.

Third, there is the question of the researcher biasing the participant's responses during the interview discussions. The questions and statements of the interviewer certainly guide what topics are explored during the interview, however, the responses remain the creation of the participant. By employing open, non-leading questions I encouraged a free exploration of the research topics by each participant. The open-ended nature of each interview provided a forum for participants to respond at length or in brevity with no pressure to expand or contract an answer as might occur using a series of focused survey questions. Also, by allowing the participant's own experiences to be the basis for the interview the discussions became participant-driven rather than having the participant commenting blindly on outside concepts introduced by the interviewer.

Finally, many elements of bias have the potential to occur during the coding and interpretation of the interview data. For example, I may have misunderstood a participant's intended meaning and therefore miscoded their statements; the process of coding itself may be seen as the application of a preconceived set of themes rather than the spontaneous generation of themes from the interview data; or the use of major themes may be seen as a way of forcing generalization rather

then illuminating complexity. A sufficient response to this concern is to be transparent in how my choices were made for coding the interview data and what interpretations and assumptions were made in the analysis. As with any research, these methods remain open to scrutiny and replication, and the discussion is not definitive – it presents only my interpretation of the results.

## **4 Results**

### **4.1 Case Summaries**

Twenty-one narratives of difficult situations and decisions were presented by the participants during their interviews. The textual case summaries describing these specific decisions or situations are provided in Appendix II. Generally speaking the major details of the situations and decisions described by the participants appeared consistent with each other within the employer categories, but were noticeably different between the employer categories.

RPFs employed by the government tended to discuss situations related to the review of fellow professionals' work. Disagreements and ethical concerns with the actions of fellow professionals often arose from differing interpretations of legislation. Often these differences were over expectations of the quality or the breadth of information that was required by the submitting RPF for review by the RPF employed with the government.

RPFs employed by industry commonly discussed situations related to forest management activities such as development planning, protecting forest health, and dealing with forest resource stakeholder groups. Ethical deliberations for these participants mainly dealt with the influence of economics, which was seen as either a social value to be maximized or a cost to their employer to be minimized.

RPFs employed as consultants encountered a wider variety of situations that included professional disagreements, the influence of personal values, and concerns with status-quo practices that produced potentially unethical results. Difficult choices often arose because the needs of their client conflicted with their personal beliefs or their knowledge and expertise.



## 4.2 Coding Summary

Appendices V to VII present tables which summarize the incidence of the modifiers by employer category, participant, and major theme. As mentioned previously, no weight or significance is given to individual modifiers, however, the tables allow the number of different modifiers to be easily seen which indicates the level of modifier diversity a participant has for a particular theme in their data set. Diversity can also be observed as the total number of different modifiers within a major theme. The table format allows an easy comparison between the participants to see similarities in the incidence of modifiers and the diversity of modifiers across themes, participants, and employer categories. The written summary of the results given below uses the major themes as the common element for comparison. This is because inter-participant comparisons are not felt to be valid because the situations discussed in the interviews are unique from each other and hence the modifiers indicated for major themes are not based on similar circumstances. However, it is possible to infer a sense of the discretionary context of the situations based on modifier diversity, and this is discussed in Section 4.3.

### 4.2.1 RPFs Employed by the Government

Appendix V summarizes the results for the five participants employed by government. The major theme which showed the most similarities between the participants was 'Decision', although the themes of 'Responsibility', 'Influence', 'Resources', 'Legislation' and 'Professional' showed similarities between at least three of the participants. The theme of 'Difficulty' showed the most diversity of modifiers between the participants, although the themes of 'Ethics' and 'Values' were similarly varied. The themes of 'Public', 'Shift', and 'Stratification' were distinctive in that they were only discussed by a few of the participants and not by all five. The theme of 'Stratification' is unique to the government employer category.

#### 4.2.2 RPFs Employed by Industry

Appendix VI summarizes the results for the five participants employed by industry. The major theme which showed the most similarities between the participants was 'Decision', although the themes of 'Ethics', 'Responsibility', 'Influence', 'Resources', 'Legislation', 'Professional' and 'Public' showed similarities among at least three of the participants. The themes of 'Difficulty', 'Values' and 'Shift' showed the greatest diversity in modifiers, and hence the least similarities between the participants.

#### 4.2.3 RPFs Employed as Consultants

Appendix VII summarizes the results for the five participants employed as consultants. The major theme which showed the most similarities in modifiers between the participants was 'Decision', although the themes of 'Responsibility', 'Influence' and 'Professional' also showed a high level of similarity between their modifiers. 'Resources' and 'Difficulty' showed similarities between at least three of the participants. The themes of 'Ethics' and 'Values' showed the most diversity of modifiers out of all the themes. Not all participants offered a discussion of the themes of 'Legislation', 'Public' and 'Shift'.

### 4.3 Coding Analysis

Appendix VIII provides a series of histograms of the modifier frequency for all three employer categories by theme, based on the data provided in the tables in Appendices V to VII. The analysis was completed based on the incidence of the modifiers within each participant's dataset as a way of distinguishing differences between the major themes. This should not be confused with a tally of the number of times a modifier was used in a participant's dataset, rather it is incidence – either a modifier appears in a participant's dataset (=1) or it doesn't (=0). In other words, a count of 15 would indicate that the modifier occurred in all of the participants' datasets.

Again, the numbers also do not offer a way to measure the relative importance of a modifier to a theme or to an employer category.

It is important to keep in mind that the summaries used to produce these histograms do not indicate the specifics of the participants' responses. Therefore, it is not possible to infer that because a modifier appears in the dataset for several participants or that the modifier is common between employer categories that there is agreement on a particular idea or concept. To make this inference would require going back to the interview data to appreciate if these similarly coded responses are actually referring to similarly expressed ideas or concepts. I did not engage in this kind of analysis as I felt that my sample size could not support reflection of that depth for all of the modifiers in all of the themes. This level of analysis is more appropriate for a dataset that has achieved a 'saturation' level where sufficient numbers of interviews have been conducted. However, the value in creating these histograms is to provide an indication of trends in how the themes are perceived by the participants.

Three qualities of each major theme can be distinguished based on modifier incidence; diversity, extent, and commonality. The number of different modifiers along the x-axis indicates the *diversity* of the modifiers within a theme. The scale of the y-axis and the height of each bar show the number of participants who had the modifier associated with that theme in their dataset, which is the *extent* of a modifier. The *commonality* of the modifier across the employer categories is indicated by the stacked portions of the bar and is somewhat related to extent. However, commonality refers to how many modifiers within a major theme appear in more than

one employer category, not whether a major theme has modifiers from more than one employer category.<sup>25</sup>

The qualities of extent and commonality can be used to explore only some of the characteristics of the modifiers in a major theme. For example, the histogram for the major theme ‘Professional’ shows that four modifiers are associated with this theme. Three of the modifiers appear in only two of the employer categories, while the modifier ‘obligation’ occurs in the data of all three employer categories. Nine participants had the modifier ‘obligation’ in their datasets; four of the participants were employed as consultants, four of the participants were employed by industry, and only one of the participants was employed by government. We can not use this histogram to suggest that most government RPFs do not associate obligation with professionalism, or that obligation is the most important element of professionalism compared to the other modifiers that are associated with that theme. We can, however, infer that because of its high extent (nine participants) obligation is most likely an important part of how RPFs perceive professionalism and that because of its commonality (the modifier appears in the datasets of participants in all three employer categories) this concept is most likely not specific to a particular employer category or individual situation. Despite offering some insight into the major themes, an examination of single modifiers in each theme based on extent and commonality was not done as part of the analysis. The reason was that the results would not contribute a great deal of meaning to the overall discussion. For example, very few of the modifiers associated with the major theme of ‘Ethics’ show any level of commonality or extent. Without having completed additional interviews it is not possible to say whether these modifiers truly have a limited extent and commonality or that because of the high diversity of modifiers a much larger sample size of

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<sup>25</sup> A major theme emerges only if it exists for most participants in all employer groups, hence, all major themes should have modifiers from more than one employer group. The notable exception is ‘Stratification’ which was

interviews is needed to get a better idea of the extent and commonality for each modifier.

Additional data may also support amalgamating some modifiers in order to describe common ideas and concepts that emerge, but again, this level of saturation was not achieved for the purposes of this analysis.

Despite the difficulties in analysing individual modifiers within a single theme, they can provide a basis of comparison between the major themes using the three qualities. For example, ‘Professional’ has four modifiers associated with it which suggests a relatively low diversity compared to the major theme of ‘Values’ which shows a high diversity of 53 modifiers. The modifiers associated with ‘Professional’ also have a limited extent within the participants’ datasets. Lastly, ‘Professional’ shows a limited commonality, with only one of its modifiers (‘obligation’) appearing in the datasets of participants from all three employer categories. A comparison between all the major themes based on these qualities was completed (Table 4.1).

**Table 4.1 Diversity, Extent and Commonality of the modifiers in each major theme.**

<b>Major Theme</b>	<b>Diversity</b>	<b>Extent</b>	<b>Commonality</b>
Difficulty	Very	Limited	Limited
Ethics	High	Limited	Limited
Responsibility	Limited	Moderate	Moderate
Decision	Moderate	High	High
Influence	Very	Moderate	Moderate
Values	High	Very Limited	Limited
Resources	Moderate	High	Moderate
Legislation	Limited	Moderate	Moderate
Professional	Limited	Limited	Limited
Public	Very Limited	Very Limited	Very Limited
Shift	Moderate	Very Limited	Very Limited
Stratification	Very Limited	Very Limited	Very Limited

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maintained as a major theme to allow for future studies to investigate the validity of stratifying RPFs according to their employer group.

## **5 Discussion**

### **5.1 Idiosyncrasy and the Major Themes**

Due to the arbitrary limit set for the number of interviews (15) the study did not reach a point of saturation where key emergent themes could be verified. It was therefore not possible to legitimately reduce the 12 themes that were developed for the coding (Table 3.1) to a more concise list. Future investigations may help to reduce or amalgamate these themes. However, they are a valuable range of factors that reflect facets of an RPF's ethical deliberation.

The analysis of the major themes according to their associated modifiers (Table 4.1) helps to distinguish the highly idiosyncratic facets of an RPF's situation or decision. Two assumptions are required in order to make this assertion from the data. First, we assume that the diversity of the modifiers represents a diversity of the conceptions expressed by the participants with regard to a particular major theme. Second, we assume that a diversity of conceptions reflects that the theme is idiosyncratic to a specific situation or decision. We can therefore differentiate between those themes that are not idiosyncratic and appear to be perceived similarly by all participants regardless of their employer group or situation, and those themes that are highly idiosyncratic suggesting aspects of ethical deliberation that the participants perceive very differently as they are dependent on the specific situation or decision.

For example, a highly diverse theme such as 'Values' indicates that the participants expressed diverse perceptions of the 'Values' involved in their situation or decision. As well, 'Values' shows a limited extent and commonality for the modifiers suggesting that perceptions of values are particular to individuals and not widely shared between participants or across employer categories. This also makes intuitive sense, in that one can expect that different situations would bring forward different values. 'Values' is subsequently considered a highly idiosyncratic theme.

If we take a contrary example, such as the theme of ‘Resources’, the analysis shows a lower diversity of modifiers suggesting that there is a lower diversity of conceptions about the resources an RPF taps into when deliberating a decision. The high extent and moderate commonality of this theme suggests that many participants share the same perceptions about which resources they draw upon and that the resources are not particular to an employer group. Again, this assertion makes intuitive sense as it would be reasonable that there are a limited number of resources that RPFs can draw upon when making difficult choices and that these resources would be generally known and available to all professionals irrespective of their employer. We would also not expect the use of these resources to be changed by a particular situation or decision, just more or less likely to be of use to the RPF. The modifier-based analysis of the themes can therefore be used to categorize the major themes according to their degree of idiosyncrasy (Table 5.1).

**Table 5.1 Idiosyncrasy of the major themes to a situation or decision.**

<b>Low (Commonly Perceived in all Situations)</b>	<b>Moderate (Somewhat Specific to a Situation)</b>	<b>High (Very Specific to a Situation)</b>
Responsibility Decision Resources Legislation	Difficulty Ethics Influence Values Professional	Public Shift Stratification

Idiosyncratic themes are described by the participants in a strongly context-related fashion, which suggests that these themes may provide insight into how an RPF perceives their discretion in a particular situation or decision. Idiosyncratic themes suggest aspects of the ethical deliberation of the participants that are part of a unique context. For example, most of the modifiers associated with the theme of ‘Values’ are particular to single participants with very few modifiers being shared by more than one individual. Hence, the perceptions of the values

they recognized as being part of their situation or decision are not based on a presupposed set of standards that all RPFs would consider. They are a product of the individual RPF in a particular situation. On the other hand, the themes which display a low idiosyncrasy seem to reflect the more commonly perceived, codified, or legislated aspects of professional forestry. For example, an RPF's sense of 'Responsibility' is made clear through their professional status, job duties, and the definition of the practice of professional forestry. Hence, all RPFs view their responsibility to ethical deliberation as stemming from the same influences. The one exception with this particular theme is the low commonality which suggests that perceptions of responsibility may be employer-specific. This supports the suggestion that there may be a principal-agent bias in an RPF's professional practice.<sup>26</sup> To take another example, it may seem surprising that the theme of 'Legislation' is considered to not be idiosyncratic, especially considering that legal standards often change depending on the specific professional activity being performed. However, the major theme of 'Legislation' is not considered idiosyncratic because all of the participants perceived legislation as a common influence regardless of their situation. As one participant suggests, legislation is not idiosyncratic because it does not allow for flexibility:

*Legislation is codified behaviour in concrete terms [but] the Association wants you to uphold a higher standard than what's legislated and something that's more flexible and more applicable to day to day situations. But if it's legislated it's a clear cut situation. This is what you can do, this is what you can't do.*

The importance of categorizing the major themes according to their idiosyncrasy is that it allowed me to return to the interviews and discover several aspects of professional ethical deliberation that appeared to be prevalent within a particular employer category. Although all of

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<sup>26</sup> See Section 2.3.5 for a discussion of the principal-agent concern in professional practice.



the major themes broadly apply to all participants, a focus on the idiosyncratic themes revealed phenomena that appear to be particular to specific employer groups. This supports the premise that the employer categories are important indicators of distinct professional work environments, which in turn shape the discretionary context and ethical deliberation of the RPF.<sup>27</sup> The sections that follow illustrate how a focus on the idiosyncratic themes of ‘Difficulty’, ‘Influence’, and ‘Ethics’ revealed phenomena within the employer groups.

## **5.2 The Major Theme of ‘Difficulty’**

### **5.2.1 Delegated Decision-Making (Government)**

Delegated decision-making is not unique to the government but it appeared to be a prevalent influence for those participants employed by the government. The organizational structure of the MFR places the statutory authority for the approval or disapproval of a number of forest resource activities in the hands of the District Manager (DM). Professional foresters employed by the government are commonly in the position of providing recommendations to the DM as to whether an activity proposed by a licensee should be approved. Many private organizations contain similar divisions of authority, but a DM is a legislated level of authority put in place to protect public values, and they possess a level of legal authority which the participants did not possess due to their job classification. A DM’s political authority also represents a significant influence on the discretionary space of an RPF employed with government as the DM can choose to ignore an RPF’s recommendations or substitute their authority for that of the RPF. For this reason these RPFs could be seen to have a weaker sense of discretion because they do not possess the authority for making a final decision.<sup>28</sup>

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<sup>27</sup> See Section 2.3.4 for a discussion of the socio-political framework of public forest management in BC.

<sup>28</sup> See Section 2.3.1 for a discussion of the stronger and weaker senses of discretion.

Despite the limits on their authority none of these RPFs felt that they possessed less responsibility for their deliberations. Most participants pointed to the autonomy they felt in their position and the feeling that they had a direct influence on the final statutory decision. Several of the RPFs saw their position as being a ‘lens for approval’ rather than simply assessing a proposed activity for approval or disapproval. Their understanding of what details and conditions were required by the DM meant that “a lot of back and forth with the licensees” was sometimes required before they could recommend that the DM approve a plan. As one participant stated:

*I think my role was to understand where his [the DM's] headspace was to begin with and where his comfort zones are. And then try to, I guess, present to him a Forest Development Plan that fits within his ideals.*

Acting as a ‘lens for approval’ these RPFs helped submitting professionals focus their applications into a form that could be recommended for approval, rather than simply rejecting an application outright. Another RPF suggested that they also acted as a liaison to communicate the DM’s decision-making process to the submitting forester and conversely to express to the DM legitimate alternatives that the submitting foresters brought forward.

One participant suggested that delegated decision-making was beneficial because if one lacked the experience to make a decision then deferring it to someone with greater experience or knowledge would improve the quality of the decision. Another suggested that deferring the decision to the DM helped to filter out their personal values from the final decision in a constructive way:

*Maybe that's what levels it out a little bit, you know, like the DM could look at [my decision] and go, "Okay well here's the recommendation from them," and knowing my risk tolerances they can synthesise that into something a little more objective.*

The degree of uncertainty that the participants felt regarding their decisions or situations gives some insight into how they ensured a strong level of ethical agency when possessing a weaker sense of discretion. They often encountered ethical issues during the process of reviewing a fellow professional's work when important social or environmental values had to be considered. Commonly the concerns were over whether or not the fellow professional was fulfilling their responsibility to the standards of forest stewardship. This was related to the participants' role in ensuring that the standards of both the applicable legislation and the DM's expectations were met. The participants suggested that these deliberations arose from their perceptions of others' actions. For example one participant suggested that it was difficult to judge whether a fellow professional had acted unethically when it was unclear whether or not deficiencies in their forest development plan amendments were due to a different interpretation of what was necessary or if they had truly done "shoddy" work. The participant had to distinguish between their own interpretation of what was expected by legislation and what they felt should be a commonly held professional standard. Government staff appreciate that differences in interpretation should not be construed as errors on the other professional's part. As Reader states in her report to the MFR, "a requirement to exercise judgment or discretion does not mean that a government official should be focusing on their own expectations" (Reader 2006). Hence, the participant had to actively balance how their own professional expectations and interpretations of legislation coloured their perceptions of a fellow professional's work. These examples demonstrate how the participants engaged in a deliberative process to resolve ethical issues within a weaker level of discretion.

### 5.2.2 Delegated Decision-Making (Consultants)

As a group, the participants employed as consultants seemed to share the feeling that they had a large degree of independence in their professional practice. In this respect consulting RPFs appeared to enjoy a strong sense of discretion in relation to their work. Although they often relied on their own experience and knowledge to complete their activities, several participants also discussed the fact that they often involved many other people to review their decisions or recommendations. They discussed engaging fellow field staff or the stakeholders that were most affected by a proposed activity in order to gain insight and additional veracity to their projects. In this respect the consulting RPFs felt that they were able to share the responsibility of data collection and deliberation with others while retaining the independence to make their own recommendations to their client.

Most consulting RPFs recognized that providing a professional opinion to their client was different from dictating to a client what they should or should not do. Hence, most consultants accepted that they were in a delegated decision-making environment and that the client made the final decision:

*For a lot of things in forestry that's what consultants get paid to do. Is to go out and give their opinion, give their rationale for where their opinion is coming from, and then [they] give it [the decision] up to the licensee or the Crown.*

### **5.3 The Major Theme of ‘Influence’**

#### 5.3.1 Economic Considerations (Industry)

The coding of the interviews revealed that all but one of the participants employed by industry discussed how economics influenced the values that they considered in their decisions. However, it is important to note that this does not mean that economics was considered to overshadow other values, rather it was a value that these participants identified as being consistently present. One RPF pointed out that both the market value of certain tree species and the requirements of the mills they supplied had to be taken into consideration when selecting areas for development. Very early on in the planning stages these economic values influenced decisions of where and when development could happen and conflicted with other values such as forest health management priorities. However, almost all participants expressed the belief that once the economic value of an area had been considered (whether or not a stand was economically feasible to develop) then this concern was subsequently disregarded and did not influence later management decisions. For example, the feasibility of a proposed cut block is based on the expected value of the trees in the stand. The cost of building access roads, constraints from managing for other values, and the cost/benefit of the necessary harvesting system are resolved after a stand is considered feasible. The participants felt that only when the overall volume or the quality of the trees being removed was significantly affected did the feasibility of the stand become reintroduced as an influence in their decisions.

Even so, a participant admitted that at the end of the planning process, when the balance of all activities and compromises were taken into account, a positive economic return from a harvest had to be achieved. Despite the freedom industry RPFs felt to manage a cut block and maintain a high standard of forest stewardship they still appeared to be under pressure from their employer to have a positive return. Providing some defence to this apparent contradiction to the belief that

the economic value rarely influenced stewardship decisions, another participant suggested that the overall economic return of harvesting a stand was an important public benefit and should be legitimately considered along with other more ‘acceptable’ social values. For example, in some areas there was a priority to harvest trees damaged by the mountain pine beetle despite the fact that the wood was commonly less marketable and significantly reduced a mill’s revenues. They felt that the policy of harvesting this wood was being driven by public pressure rather than sensible objectives. The outcome was that the short-term, uneconomic ‘flavour of the day’ was being placed ahead of the long-term social value of a mill’s solvency and a community’s economic stability.

The complex influence of economics in a decision is illustrated by the ABCFP’s Code of Ethics (ABCFP 2003, ABCFP 2006). Economic considerations are thought of as both a component of stewardship and a management prerogative (Guidelines 2 and 3, p. 4). Hence “responsible economics” is a social value to be considered while “economic constraints” are a “management” decision and not part of professional principles. Economics can be seen as a socially desired value which supports pursuing certain activities and agendas, or it can be seen as a profit motive that can not be used to justify sacrificing other values.<sup>29</sup> The complexity of considering both versions of economics was aptly illustrated by one participant:

*At the end of the day it comes down to ‘nobody’s in it for free’. We’re not out there volunteering our time. And you do have to, at the end of the day, make a profit otherwise everybody goes home. And the thing with a big company, a publicly traded company is, you know, you’re trying to make money and stuff, but there is definitely a community*

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<sup>29</sup> Due diligence case law in Canada specifically states that economics is not a valid consideration when potential harm to public values is at stake (see Swaigen, J. 1992. Regulatory offences in Canada. Carswell, Scarborough, Ontario, Canada).

*aspect that is focused on. By being in the community and keeping the mill running and being efficient and being productive and profitable you keep those employees working.*

Two participants raised the possibility of economics coming into play during the planning process due to the appraisal system.<sup>30</sup> They felt strongly that the system sometimes “distorted” the economic cost of a cut block because to maximize the financial return on the cut block meant considering how to maximize stumpage deductions. For example, an RPF could improve the revenue from a harvesting operation by incorporating additional road construction into an environmentally sensitive harvesting strategy. Despite there being nothing illegal in adjusting their harvesting plan to reduce the stumpage cost both participants’ recognized that the choice to do so could become an ethical matter due to their responsibility to the standard of forest stewardship.

### 5.3.2 Forest Health Considerations (Industry)

Forest health was the second most commonly discussed influence on decisions for the participants employed by industry, specifically because of the policies and priorities associated with the mountain pine beetle. Placing a priority on treating these stands resulted in these activities being preferred over other management activities, especially if there were significant risks to future or present values in the forest stand. For example, present values might be the economic value of the wood fibre or the provision of wildlife habitat from living trees, while a future value might be avoiding the increased fire hazard that would result from the being killed. In several examples the industry RPFs experienced a weaker sense of discretion because the

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<sup>30</sup> The appraisal system is a method used by the MFR to gather a stumpage tax on the volume of wood harvested from public lands. It is a complex calculation which is intended to reflect both the value of the wood harvested and the costs incurred by the licensee to access and remove the timber (see the MFR Revenue Branch’s Coast and Interior Appraisal Manuals for details; <http://www.for.gov.bc.ca/hva/manuals.htm>). The ABCFP formed the

policies being set by a higher authority (the MFR) influenced their latitude of choice. For the majority of the participants the forest health priorities predetermined areas to be developed and the timing of when an area needed to be accessed and harvested. This affected their ability to plan for other management priorities such as maintaining visual quality and meeting silvicultural obligations. One participant felt that the pressure to harvest beetle-infested stands often drastically reduced the time frame in which management decisions had to be made. This forced them to reduce the amount of collaboration and stakeholder input they usually employed in deliberating their decisions. For example, by excluding stakeholders' interests and fast-tracking the development of access to an area specifically for the removal of wood damaged by the beetle they felt that they were placed into value conflicts they normally would have had time to accommodate.

Another interesting feature of the priorities set to address forest health issues was that they seemed to introduce negative economic pressures. Although there is a social benefit in returning public forests to productivity by helping them recover from a disease or insect outbreak, this exerted pressure to harvest marginal areas that would be difficult and expensive to regenerate. Additionally, trees affected by a forest pest were often of a single species which may not be marketable, and the wood quality of trees affected by disease or insect pests was often lower than unaffected or 'green' trees. Harvesting from these stands as opposed to accessing more valuable healthy stands could significantly reduce a company's overall revenue. These negative economic pressures often conflicted with a social perception that the priority of the licensee should be to address the forest health concerns in all areas regardless of revenue. As one participant stated:



*We sit here today and we look outside and we can see pine trees attacked all around us and then, you know, now people, the general public, are seeing a load of fir logs going down the highway driving right by a stand of dead [pine] trees and they're starting to ask questions.*

## **5.4 The Major Theme of 'Ethics'**

### **5.4.1 Professional Independence (Consultants)**

Although these participants generally felt that professional ethics started from the basis of a personal ethic, one participant found it difficult to reconcile the standards of their clients with their own personal beliefs. This echoed another participant's concerns that a decision that conflicted with their personal beliefs made achieving a satisfactory resolution more difficult. The participants therefore felt that they had to employ a distinctive 'professional' ethic separate from personal beliefs such as placing timber values ahead of wildlife values. Developing this 'professional' ethic allowed them to be able to argue for or against particular values based on their experience and knowledge rather than promote their personal values with which the client might disagree. Even so, often their professional ethic reflected aspects of their personal ethic as with one participant who had a Hippocratic-esque ethic of not wanting to leave a forest stand in worse condition than they found it. Still, the consulting RPFs seemed to actively separate their personal values from, or translating them into, a professional ethic. They considered some actions by clients as "grossly unethical" such as incidents of high grading under the auspices of selective harvesting, while they viewed other situations as being ethically acceptable but not something they would be comfortable doing themselves. For example, one participant discussed how some clients would employ a yearly allowable harvesting level that they felt would likely become unachievable in the long-term. Despite the RPF's belief that the harvest level was too

risky, they accepted that the client had the right to make an informed decision and assume the professional responsibility for that choice.

Much of a consultant's work is based on providing a set of expert skills or an expert opinion, and for several participants being professionally ethical meant strictly adhering to the limitations of their scope of practice. The ABCFP provides clear direction in the Code regarding confining professional activities and recommendations to those in which you are competent and knowledgeable (ABCFP 2003 and ABCFP 2006). A professional enters into a breach of ethics when they judge or oversee work they do not fully understand. Some participants felt that their role of providing an expert opinion meant that by providing services outside of their scope of practice they would support bad decisions by their clients. Despite this, they also recognized that they sometimes they engaged in work or situations which they had not encountered previously and that potentially fell outside of their scope of practice. In these instances the participants spoke of expanding their scope of practice by drawing on peer support and engaging other professionals and experts to sufficiently address the challenges of the unfamiliar situation.

One participant pointed out that ethical breaches were not the same as breaking laws; that an RPF could be within the law and yet also be acting unethically. They cited an example of an RPF harvesting a component of high value wood under a pulp wood harvesting licence. The inclusion of the higher value wood did not change the overall average piece size (upon which the pulpwood licence was granted) but the higher value wood was harvested at a lower stumpage rate than it would have normally incurred. They felt that had the client gone beyond considering what was legally permissible they might have made a different decision. One participant suggested that the most reliable test was to consider whether or not they could defend their decision to a peer or to a person off the street. The participant drew guidance from legal

requirements, but gauged the ethics of their actions by the perceptions of their peers and the public. They also suggested that following the Code of Ethics was a way to check one's behaviour. However, another participant expressed their concern that adhering to the word of the Code was not the same as being a sufficient ethical agent:

*Could a person memorize that sheet [the Code] inside and out before taking the exam?  
For sure. Do people still fail that part? Everyday. 'Cause it's just a guideline and you  
have to know how to interpret those ethics and how to put them into play and make them  
work effectively.*

## **5.5 Addressing the Discussion Points<sup>31</sup>**

### **5.5.1 RPFs Recognize Ethical Situations**

One of the more interesting outcomes in reviewing the discussions with the participants was that they all seemed to recognize instances of ethical deliberation. Over the course of our discussions the RPFs who participated in this study were able to describe the elements that they felt made their examples ethical rather than practical or political. Several of the participants used familiar ethics-related wording during their interview, such as “doing the right thing”, having to address “the best interests of the public as well as my employer and profession”, and going “beyond the technical aspects to actually consider the impacts on social values and environmental values”. One participant felt that their situation wasn't “so much an ethical decision I had to make but a question of ethics” as they were unsure if they were obligated to address the ethical breach of a fellow professional. Recognizing a risk to a value or interest seemed to be used as an indicator by some participants that their situation or decision required ethical deliberation. For example, making decisions with incomplete knowledge or the risk of sacrificing long-term objectives for

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<sup>31</sup> The discussion points were developed to help focus the broader thesis question. They are listed in Section 1.2.

short-term gains required a level of deliberation that they felt was beyond what was required for more practical decisions. As one participant stated, “the element of risk and chance that you're building into decisions brings in ethical considerations” which echoed some participants’ perceptions that it was an ethical choice to assume the risk for any course of action in the face of unpredictable events.

The type of ethical situations that an RPF discussed seemed to be strongly related to their employer. Several of the participants had similar professional roles, but they experienced very different ethical situations due to their scope of practice and their work responsibilities. For example, participants who were employed by the government and those who worked as consultants were often employed in an advisory role to provide information to a delegated decision-maker. However, those working for government were commonly reviewing the work of other professionals while those working as consultants were commonly engaged in operational planning activities. The result was that the RPFs employed by the government discussed ethical issues related to their disagreement with the work of other professionals, while the consulting RPFs discussed ethical concerns related to how their client’s objectives might influence their professional independence. RPFs employed by industry were often engaged in operational planning activities and many of their difficult choices arose from balancing conflicting social and economic values.

### 5.5.2 RPFs Recognize Ethical Responsibility

The participants almost universally expressed feelings of a professional responsibility to seek resolutions to the ethical situations they encountered. It was evident that the participants felt that there were very few professional decisions that weren’t somehow tied to balancing values or interests. Because of a professional responsibility to provide a social benefit from their practice

they tended to treat all of these values as a multiplicity of ‘right’ choices. For example, many of the situations described by the participants had elements of personal and professional ethical principles being in conflict with some practical consideration such as a legal requirement, a political agenda, or an economic cost. Their personal and professional principles could include forest stewardship, a personal land ethic, a spiritual connection to the forest, unqualified respect for wildlife species, or some standard of personal integrity. Yet they then often expressed the competing practical considerations as a competing ethical value, such as an ‘economic cost’ being the loss of employment and socio-economic stability from a local community. In this way they appeared to seldom view their decisions as simply practical, but rather took all considerations as having some sort of beneficial merit that needed to be considered.

The participants also demonstrated an ability to distinguish deeper ethical issues in the course of their professional practice. For example, one professional’s dispute with another RPF over a legal requirement could have been confined to questioning the correctness of the other RPF’s interpretation of the legislation and allow the matter to be settled through a legal decision.

However, the participant had felt that there was deeper professional ethical concern regarding the motivation behind the other RPF’s conflicting interpretation that needed to be considered. Was the other RPF’s interpretation of the legislation intended to improve the stewardship of forest resources or was the interpretation intended to advance their employer’s interests? Was there a need to pursue the matter through the professional association to resolve their concerns, or should they simply respect the other RPF’s professional independence?

### 5.5.3 Resources for RPFs that Support Ethical Deliberation

The resources most commonly used by RPFs across all three employer categories were discussing the matter with peers, drawing on personal experience, and the ABCFP Code of

Ethics. Peer support was foremost for almost all participants, and as one RPF stated “the best well for knowledge, generally, is asking those with more experience than you have.” Peers were identified as being both experts and lay people, and could be coworkers, RPFs in similar or different positions in other areas, experts from government or private organizations, or more senior staff within the participant’s organization. In addition to supplementing a professional’s knowledge and experience, peers were also described as a sounding board for ideas, especially peers who were outside the profession or were not familiar with an RPF’s particular field. The value of an objective opinion was stressed by one participant who suggested that all RPFs are biased with a status-quo approach. They felt that peer support should provide a fresh perspective and therefore seeking advice only from other RPFs would not provide an alternative view:

*'Cause everyone within the field can have blinders on in a way. So I ask people that aren't even in forestry; they're certainly not RPFs. And it's really interesting because you can be surprised. What you think is so common sense, "It should be this way, right?" They look at you like, "Oh... I don't know," and you realize, "Oh, we're all biased."*

#### 5.5.4 RPF’s Reflections on their Ethical Agency

All of the participants felt themselves to be professionally empowered to deliberate the ethical issues they encountered. However, this did not mean that they also felt empowered to find a resolution to a specific decision. This is especially apparent in the delegated decision-making environment of the participants employed by government and some of the consulting RPFs. In these cases the participants still expressed that they felt professionally responsible for the recommendations they delivered and that they were no less ethically accountable than the designated decision-maker. None of the participants felt themselves to be the ‘wrong person’ to assume the role of an ethical agent in assessing difficult decisions. Despite indications that some

participants possessed a weaker sense of discretion, there was always some degree of ethical deliberation that arose from the discretionary context of their situation. A sense of responsibility to ethical agency was shared by all participants, and this prevalent attitude was expressed well by one participant employed by industry:

*You're always kind of wondering in the back of your mind, you know, "Are you doing the right thing?" I guess that if it wasn't our company it would be somebody else. So by saying, "Oh well I'm not going to make the decision," is really just a cop out, or even for our company to say, "Well we're going to leave the area and let somebody else deal with it." Well somebody has to make that decision because those rights would be with somebody. I think to not make a decision, you're just passing the buck to somebody else. The decision needs to be made and even if we pulled out of there the rights would be transferred to somebody else and some other forester would be sitting there making the same decision. So I think I know the area quite well, I've worked out there, you know, off and on over my whole career, even as a summer student I was out there. I know a lot about caribou, I have a biologist background, so I think I'm well-positioned to make the decision.*

## **5.6 Reviewing the Case Studies**

The value of the case studies is that they provide real examples of ethical deliberation experienced by RPFs in the course of their professional practice. The following subsections are my general impressions of the examples of difficult or challenging situations and decisions that were discussed by the participants (Appendix II).

### 5.6.1 RPFs Employed by Government

Each participant employed by the government discussed pertinent aspects or elements that set their particular situation apart from their regular experience. These were often attributes of ethical deliberation such as being a decision between competing 'right' choices or a situation that involved finding a balance between several social values. When addressing the ethical aspects of their professional work participants employed by the government were aware of the presence of ethics in their work but tended to discuss ethics in a broader sense rather than referring back to their specific example. As one participant stated:

*The whole question of whether we should be extracting resources at all is the first ethical decision you have to make, right? Should we do this? Well no. Okay, perfect. Well what are you going to make your house out of instead? And then, what is the environmental impact of whatever you're going to fabricate in order to replace the wood you're not harvesting? And so there's a huge question right there, you know? And so, once you satisfy yourself that you've got a reasonable answer to that question, then you can start, like, okay well how many wolf are we going to kill to protect seven caribou? They're [ethical decisions] massive and they're just, mind boggling, you know? It's terrible when you think about it. And you just do your best, right? To do what we think is right.*

### 5.6.2 RPFs Employed by Industry

The RPFs employed by industry all felt that the decisions and situations they presented were ethical in nature. They each provided clear indications of the ethical aspects of their decisions and this presents an opportunity to illustrate a technique for categorizing these examples.

Rushmore Kidder developed four paradigms of ethical dilemmas; truth versus loyalty, individual versus community, short-term versus long-term and justice versus mercy (Kidder 1996). Table



5.2 shows how the examples from the RPF's employed by the industry relate to these paradigms. 'Truth versus loyalty' appears to apply most often for these examples. In most of these situations the RPFs felt that they had to make a decision between being loyal to the interests and values of their employer (economic or legislative pressures) or to adhere to the 'truth' of public values such as the standard of forest stewardship. In one case it was the choice between the truth of an environmental infraction or loyalty to their employer's best interest in arguing against it.

**Table 5.2 Application of Kidder's ethical dilemma paradigms to case studies (Kidder 1996).**

<b>Case Title (Industry Employer Category Only)</b>	<b>Kidder's Paradigms</b>
Economic Pressure from the Appraisal System (1)	Truth versus Loyalty
Economic Pressure from the Appraisal System (2)	Truth versus Loyalty
The Infraction and the Fault	Truth versus Loyalty and Justice versus Mercy
Safety and the Operator	Individual versus Community
Forest Health versus Other Values (1)	Short-term versus Long-term and Truth versus Loyalty
Forest Health versus Other Values (2)	Truth versus Loyalty
The Status-quo and Stewardship	Truth versus Loyalty
Unresolved Public Acceptance	Individual versus Community
Stakeholder Impasse	Short-term versus Long-term

Kidder's paradigms help facilitate an understanding of why the participants considered these situations to be examples of ethical deliberation (rather than practical considerations). For example, in the case "Stakeholder Impasse" several stakeholders had competing interests over the development of access to an area. The area itself was infested with mountain pine beetle and required immediate management. The RPF employed by the licensee had created an access plan they felt was the best option considering the management constraints in the area. Their discretionary context consisted of their employment responsibilities, their obligations to the standard of forest stewardship, public policies regarding forest health and wildlife habitat, and the standards for forest development planning imposed by legislation. This network of various authorities and standards bounded a restrictive discretionary space that allowed the RPF little choice as to the 'correct' access plan. However, the values and interests that were promoted by both the government and the local stakeholders created a gap between the RPF's discretion (their

*can*) and the expectations of society (the *ought*).<sup>32</sup> The RPF felt that their discretionary space only allowed them the latitude to immediately protect other areas of forest from the pest and limit the losses from damaged timber to the short-term. Yet the stakeholders expected the RPF to maintain long-term relationships by promoting their interests, which was beyond the RPFs professional discretion. Because the stakeholders did not appreciate the limits of the RPF's discretion the RPF felt that their ethical agency was being misjudged. As it is the perceptions of the public that dictate the RPF's ethical accountability, by applying Kidder's paradigm (short-term versus long-term) we can communicate a better sense of the gap between the RPF's discretionary ability and the expectations of society.

The application of Kidder's paradigms was done to provide an example of the technique. It was not applied to the examples from the other employer groups as it does not act as an analytical tool, and so there is a limited benefit to using these paradigms to gain an understanding of the discretion and ethical agency of an RPF. Kidder states that ethical deliberations occur when the individual must choose between several 'right' possibilities when there does not seem to be one 'correct' course of action. Although the paradigms indicate a 'right versus right' choice for the participants, they do not illuminate whether there was a multiplicity of 'right' options available to the participants or what the associated benefits and detriments of these choices might have been. The paradigms also don't reveal the deliberations or perceptions of the practitioner. All of the cases included a discussion of implicit standards such as a responsibility to professional, environmental, and social values.<sup>33</sup> There were concerns over a fellow professional's conduct, the desire to adhere to principles of good forest stewardship, maintaining employment in local businesses, and the relationship of trust built between the RPF and members of the community.

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<sup>32</sup> See Section 2 for an explanation of what is meant by *can* and *ought*.

<sup>33</sup> See Section 2.3.2 regarding implicit and explicit or principle-based and rule-based standards.

There was also a discussion of explicit standards, such as the legislation and policies that affected their situations and the social and employment-related pressures that influenced their judgment. Some participants discussed the requirements to minimize soil disturbance, enhance forest productivity, and for the protection of wildlife habitat. These factors would not be properly considered if the situations were summarized with a categorical label. Kidder's paradigms are a means of highlighting the central dilemma of a situation and not a substitute for understanding the practitioner's perceptions.

### 5.6.3 RPFs Employed as Consultants

Initially, a few of the participants employed as consultants were uncertain as to the ethical nature of the examples they provided. However, in the course of conversation the multiple values and interests that they had considered became apparent, and they were better able to describe the ethical deliberation they had experienced. In a general sense, the participants often described ethical decisions as having an element of "grey" in them in which there was no clear right answer. One RPF suggested that ethical choices arose because social and environmental values tended to dictate forest management practices and exclude more scientific standards. They felt that emotionally motivated social values were uncertain and lacked a reasonable basis which sometimes diminished the discretion of the RPF, making them less able to ensure that forest management activities were ecologically sound. Another example of uncertainty or 'greyness' was when making decisions where one possessed imperfect knowledge about certain values. For example, in predicting future timber volume levels it would be easy to make assumptions about forest growth (which is imperfectly understood over time) that would produce predictions of higher future volumes. This in turn could be used to support an increase in the current rate of harvest. The RPF felt that these assumptions had to remain reasonable, if not conservative, to be considered ethical.

## **5.7 An Example of Ethical Agency in Practise**

The case summaries in Appendix II provide descriptions of the discretionary context of a situation or decision, but do not provide explicit insight to the exercise of an RPF's ethical agency. One of the cases is briefly deconstructed here to provide a better idea of how the discretionary context shapes the degree of an RPF's ethical agency. In "Rehabilitation (for the Right Reasons)" an RPF working for the government felt placed into an ethical conflict with the opinions of fellow professionals over the approval or rejection of applications for funding. The standards of the funding program were established by the MFR and the reviewing forester was given the discretion by the statutory decision maker to judge whether an application met those criteria. Both the reviewing and the submitting professionals knew the criteria and either an application for funding sufficiently showed that an area qualified for extraordinary funding or it did not. On this basis there would seem to be very little direct disagreement between the reviewing forester and other professionals on the basis of ethical conduct. This is because the participant only provided the details of the discretionary context of their decisions, they had not discussed their perceptions of the discretion that had resulted from that context. Upon further discussion it became apparent that they experienced two senses of discretion; a weaker sense of discretion that related to their oversight of the funding program, and a stronger sense of discretion was related to their professional assessment of the application for funding. The combination of the weaker and stronger discretions was a result of rule-based and principle-based standards.<sup>34</sup>

The weaker ethical agency existed because the funding program reflected an MFR policy to sustain the productivity of public forest land. Regeneration is a cost normally borne by the

licensee until a stand is declared free growing, hence the standards of the program required that extraordinary (non-human caused) circumstances for the failure of an area to regenerate must be demonstrated by the submitting professional before assistance to the licensee could be approved. The criteria for the program were interpreted by the DM who then assigned the statutory decision-making power to the reviewing forester. The reviewing forester, in turn, had to ensure that their judgment was consistent with the DM's interpretation of what applications best met the intent of the program. The review process was structured as a rule-based approach, which gave the forester very little room for judgment and hence a weaker sense of discretion. The RPF applied their own knowledge within their scope of professional practice to judge the applications against the criteria for funding. The stronger level of discretion arose when the reviewing forester introduced professional principle-based standards to judge whether or not regeneration had failed due to extraordinary circumstances. The reviewing forester could deny funding if they felt that, based on their experience, the regeneration failure was more likely caused by poor management. However, the participant felt that they were faced with an additional ethical concern. If the submitting forester was aware that poor management was the cause but had made the submission anyway, the reviewing forester would have to consider whether or not the submitting forester was intentionally attempting to evade the financial burden of sufficiently restocking a difficult area. This would be contrary to the professional ethical obligation to forest stewardship and place the reviewing forester in the position of questioning the ethical conduct of the submitting forester. Although rule-based standards initially appeared to constitute the discretionary context, the RPF revealed that they perceived deeper ethical issues during their deliberations based on a principle-based professional duty.

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<sup>34</sup> See Section 2.3.2 for a description of rule-based and principle-based standards.

## 6 Conclusion

### 6.1 Summary

There are several positive results from the research and analysis conducted for this thesis. The case summaries provide a useful set of examples for teaching and discussing ethical deliberation, and perhaps sources of contemplation for other RPFs. The results of the analysis give some validation to the anecdotal process of categorizing RPFs according to their general employer (government, industry, and consulting). The analysis also strongly suggests that ethical agency appeared to be the product of a highly collaborative professional environment. When faced with difficult choices all of the participants drew on the support of their professional peers, sought guidance from the ABCFP, deferred judgement to RPFs in other professional roles (delegated decision-making), or maintained a professional distance by advising rather than advocating a particular option to another professional. Stewardship, the overriding obligatory ethical *ought*, seemed to be a product of multiple RPF's deliberating within multiple discretionary spaces rather than a product of single professional. In other words, ethical agency is not simply delivered through the choices of a single individual within the context of a specific situation or decision, but is a product of the perceptions and discretion of several professionals making multiple decisions.

The overall purpose of this study was to explore how RPFs perceive the ethical situations that they encounter in their professional practice and whether or not constraints to their discretion affect their ethical agency. The interviews suggest that how an RPF perceives an ethical situation is strongly influenced by their professional role, and that this role is often a direct product of their employment. The participants tended to perceive ethical situations as either a difficult balance between several competing values or as a professional concern about the underlying motivation or conduct of other RPFs. They all perceived constraints to their discretion that were

a result of rule-based standards, such as the assignment of decision-making authority, adhering to legislation, and interpreting the intent of public policies. They also described constraints that were principle-based, such as the expectation to identify and protect the public interest (often defined as socio-economic values). The analysis of the interview data indicates that an RPF's perceptions of these distinct constraints can be summarized under general themes. Those themes that are idiosyncratic (contain a highly diverse set of perceptions) indicate instances of the participants describing the context-specific discretionary space of the decision or situation that they were deliberating. Because the discretionary space of a decision also dictates the latitude for a professional to deliberate an ethical issue, we gain insight into the RPF's perception of the limits to their ethical agency. Section 2 suggested that if a certain level of ethical agency is desired of professionals then the RPF must have the ability (the necessary level of discretion) to sufficiently fulfill this responsibility; a sufficient *can* must exist to fulfil the socially desired *ought*. I feel that my research provides a process of making professional ethical accountability truly that; an account of the ability of an RPF to promote the values that society wishes them to uphold. Only through understanding the *can* of the professional as they perceive it may we hope to bridge the space between *ought* and *can*; between stewardship and the role of the RPF.

## **6.2 Reflection on the Methods**

The choice to initially define a cohort of professionals from a particular period of time using their date of registration as an RPF was only semi-successful. Of the 15 participants, four had previously worked as technicians, returned to school and then continued their careers as professional foresters. Three more of the participants had been practising as professionals outside BC and had transferred to BC and then registered with the ABCFP within the time frame that the study specified. Although this meant that these seven participants had substantially more experience than the others, the examples that the seven more experienced participants gave were

BC-based and within the same socio-legislative time period as the others. The difference in the range of work experience among the participants did not seem to produce any degree of difference in the depth of the discussions or their ability to articulate ideas. The division of the sample population into the employer categories resulted in an easier method of discussing some of the specifics regarding their interview discussions. Several phenomena particular to a specific employer category were revealed which suggests that there are legitimate distinctions between the employer categories. The random drawing and contacting of the participants resulted in a fairly quick confirmation of participants and it is felt that this approach could be used again with similar success. It is felt that the constructivist approach to the study was the appropriate path to follow given my familiarity with aspects of the professional context.

### **6.3 Suggestions for Future Investigations**

It would be worthwhile to understand how the economics of maintaining business relationships and the pressure of the 'bottom line' truly affect the ethical decisions that RPFs make. It has always been a fairly anecdotal idea that economics subverts all other values, but there is no empirical evidence that this is true. The topic of economics was discussed by the participants in the various ways presented in this thesis. However, this topic was not purposefully explored as this would have biased the discussions towards this one value. The anecdotal nature of this topic is shown by the fact that many of the participants in this study often had perceptions of how economic pressures affected RPFs in employer groups other than their own. For example, many held the stereotype that RPFs employed by industry were substantially influenced by their employer's bottom line. Many participants viewed RPFs employed by the government as being the most removed from the influence of an economic bottom line. The perceptions about consulting RPFs suggested that they were influenced by the economic pressure of maintaining



healthy business relationships and therefore may be inclined to 'bend the rules' for their clients. Any one of these stereotypes could be investigated and substantiated or dispelled.

RPFs seem to require a high level of what Kidder refers to as an individual's "ethical fitness" (Kidder 1996) if they are to have the ability to sufficiently resolve ethical choices. This study has not explored how well RPF's are able to balance the complex values that influence their decisions. This would of course require the development of some sort of standard of performance, but the results would be very useful to practitioners as a guide to developing their own "ethical fitness".

It is also disappointing that the ethical dimensions of forestry practitioners are not more widely studied. The situations and values being considered on a daily basis by foresters are a spectrum of values beyond those faced by other professions. The literature available concerning lawyers, doctors and engineers has much to do with the interaction between the professional and their client, and very little to do with the broader human condition beyond issues of health and safety. Forestry affects the physical environment, other species, social stability, the economic well-being of communities and nations, and the sustainability of ecosystems and lifestyles. It is hard to think of a more diverse field of professional ethics and one that is less studied from the practitioner's perspective.

## Bibliography

- Association of BC Professional Foresters (ABCFP). 2003. ABCFP bylaws. ABCFP, Vancouver, BC, Canada.
- . 1995. Academic standards. ABCFP, Vancouver, BC, Canada.
- . 2006a. Enrolment Policy. ABCFP, Vancouver, BC, Canada.
- . 2006b. Guidelines for interpretation: ABCFP code of ethics. ABCFP, Vancouver, BC, Canada.
- . 2002. Interpreting the publics' interests. ABCFP, Vancouver, BC, Canada.
- . 1998. Professional accountability workshop: application of professional discretion under the Forest Practices Code. ABCFP, Vancouver, BC, Canada.
- . 2004a. Recognition, Respect & Influence: A report prepared by the ABCFP External Communications Task Force for council consideration. ABCFP, Vancouver, BC, Canada.
- . 2004b. Standards of professional practice: Guidelines for interpretation. ABCFP, Vancouver, BC, Canada.
- Audi, R. 2006. Practical reasoning and ethical decision. Routledge, New York, New York, U.S.A.
- Bayles, M. D. 1981. Professional ethics. Wadsworth Publishing Company, Belmont, California, U.S.A.
- BC Ministry of Forests and Range. 2007. Annual service plan report 2006/07. BC Ministry of Forests and Range, Victoria, BC, Canada.
- BC Provincial Government (BC Gov). 2002. Forest and range practices act. Queen's Press, Victoria, BC, Canada.
- . 2004. Foresters act. Queen's Press, Victoria, BC, Canada.
- Berry, R. J. (Ed). 1993. Environmental dilemmas: ethics and decisions. 1st edition. Chapman & Hall, London, U.K.
- Bunnell, F. L. 1976. The myth of the omniscient forester. *The Forestry Chronicle* **52**(3): 150-152.
- Callahan, J. C. (Ed). 1988. Ethical issues in professional life. Oxford University Press, New York, New York, U.S.A.
- Creswell, J. W. 1998. Qualitative inquiry and research design: choosing among five traditions. Thousand Oaks, Sage Publications.

- Davos, C. A. 1988. Harmonizing environmental facts and values: a call for co-determination. *The Environmental Professional* 10: 46-53.
- Dworkin, R. 1978. *Taking rights seriously*. Harvard University Press, Cambridge, Massachusetts, U.S.A.
- Ferrell, O. C. and Larry G. Gresham. 1985. A contingency framework for understanding ethical decision making in marketing. *Journal of Marketing* 49(3): 87-96.
- Ford, R. C. and Woodrow D. Richardson. 1994. Ethical decision making: a review of the empirical literature. *Journal of Business Ethics* 13: 205-221.
- Forest Practices Board. 2003. *Due diligence*. Board Bulletin, Volume 1. Forest Practices Board, Victoria, BC, Canada.
- Forester, J. 1984. Bounded rationality and the politics of muddling through. *Public Administration Review* 44(1): 23-31.
- Friesen, C. 1998. *Grey areas in BC forestry: does BC need licensed professional forestry?* UBC Unpublished Undergraduate Thesis.
- Guy, M. E. 1990. *Ethical decision making in everyday work situations*. Quorum Books, New York, New York, U.S.A.
- Haidt, J. 2001. The emotionalist dog and its rational tail: a social intuitionist approach to moral judgment. *Psychological Review* 108(4): 814-834.
- Hartsell, B. D. 2006. A model for ethical decision-making: the context of ethics. *Journal of Social Work Values and Ethics* 3(1). Online journal at <http://socialworker.com/jswve/>
- Heath, H. and Sarah Cowley. 2004. Developing a grounded theory approach: a comparison of Glaser and Strauss. *International Journal of Nursing Studies* 41: 141-150.
- Irland, L. C. (Ed). 1994. *Ethics in forestry*. Timber Press, Portland, Oregon, U.S.A.
- Jamal, K. and Norman E. Bowie. 1995. Theoretical considerations for a meaningful code of professional ethics. *Journal of Business Ethics* 14: 703-714.
- Kidder, R. M. 1996. *How good people make tough choices: resolving the dilemmas of ethical living*. 1st Fireside edition. Simon & Schuster, New York, New York, U.S.A.
- Koehn, D. 1994. *The ground of professional ethics*. Routledge, New York, New York, U.S.A.
- Kultgen, J. H. 1988. *Ethics and professionalism*. University of Pennsylvania Press, Philadelphia, U.S.A.
- Kvale, S. (1996). *InterViews: an introduction to qualitative research interviewing*. Sage Publications, Thousand Oaks, California, U.S.A.

- Lammi, J. O. 1968. Professional ethics in forestry. *Journal of Forestry* **66**(2): 111-114.
- List, P. C. (Ed). 2000. *Environmental ethics and forestry: a reader*. Temple University Press, Philadelphia, Pennsylvania, U.S.A.
- MacKay, E. and Patrick O'Neill. 1992. What creates the dilemma in ethical dilemmas? examples from psychological practice. *Ethics & Behavior*, **2**(4): 227-244.
- Matherne, B. P., Steve Gove, Victor Forlani, and Jay J. Janney. 2006. "Walk the talk": developing personal ethical agency through a business partnership program. *Journal of Management Education* **30**(1): 106-133.
- McDonald, M. 1991. First principles for professional foresters. *in* Peter C. List (Ed). 2000. *Environmental ethics and forestry: a reader*. Temple University Press, Philadelphia, Pennsylvania, U.S.A.: 128-144.
- McDonald, M., Paddy Rodney, and Rosalie Starzomski. 2001. A framework for ethical decision-making: version 6.0 ethics shareware. The W. Maurice Young Centre for Applied Ethics Vancouver, BC, Canada. <http://www.ethics.ubc.ca/people/mcdonald/decisions.htm> (Accessed August 5, 2008).
- Mills, J., Ann Bonner, and Karen Francis. 2006. The development of constructivist grounded theory. *International Journal of Qualitative Methods*, **5**(1), Article 3. Retrieved April 25, 2007 from [http://www.ualberta.ca/~iiqm/backissues/5\\_1/pdf/mills.pdf](http://www.ualberta.ca/~iiqm/backissues/5_1/pdf/mills.pdf)
- Morgan, C. A. and Michael McDonald. 2007. Ethical dilemmas in veterinary medicine. *Veterinary Clinics Small Animal Practice* **31**(2007): 165-179.
- O'Connell, S. 1994. *Dilemmas and decisions: a primer in ethical theory*. Harcourt Brace Canada, Toronto, Ontario, Canada.
- Quayle, M. 2006. Historical developments of log pricing policies in British Columbia Canada and Queensland Australia – international similarities and differences. Paper presented at the Economic History Society of Australia and New Zealand 2006 Conference. Retrieved June 5, 2008 from <http://www.uow.edu.au/commerce/econ/ehsanz/pdfs/Quayle.pdf>
- Reader, R. 2006. The expectations that affect the management of public forest and range lands in British Columbia: looking outside the legislation. Discussion Paper prepared for the BC Ministry of Forests and Range and the BC Ministry of Environment.
- Society of American Foresters Ethics Committee. 1996. *Ethics guide for foresters and other natural resource professionals*. Society of American Foresters, Bethesda, Maryland, U.S.A.
- Smith, P. D. and Maureen H. McDonough. 2001. Beyond public participation: fairness in natural resource decision making. *Society and Natural Resources* **14**: 239-249.
- Spitler, G. 1988. Seeking common ground for environmental ethics. *The Environmental Professional* **10**: 1-7.

Swaigen, J. 1992. Regulatory offences in Canada. Carswell, Scarborough, Ontario, Canada.

Wood, P. 1991. "The greatest good for the greatest number": is this a good land-use ethic? *Forestry Chronicle* **67**(6): 664-667.

———. 2004. Professional forestry, due diligence, and the advice of specialists. *The Forestry Chronicle* **80**(5): 567-72.

———. 2006. Professional reliance: consistently good decision-making. *BC Forest Professional* **13**(6): 10-11.

——— and Laurie Flahr. 2004. Taking endangered species seriously? British Columbia's species-at-risk policy. *Canadian Public Policy / Analyse de Politiques* **30**(4): 381-399.

Yin, R. K. 2003. *Case study research design and methods*. Third Edition. Sage Publications, Thousand Oaks, California, U.S.A.

# Appendix I: UBC Research Ethics Board Certificate of Approval, sample contact letter, and sample confidentiality agreement



The University of British Columbia  
 Office of Research Services  
**Behavioural Research Ethics Board**  
 Suite 102, 6190 Agronomy Road, Vancouver, B.C. V6T 1Z3

## CERTIFICATE OF APPROVAL -MINIMAL RISK

<b>PRINCIPAL INVESTIGATOR:</b> Paul Wood	<b>INSTITUTION / DEPARTMENT:</b> UBC/Forestry/Forest Resources Mgt	<b>UBC BREB NUMBER:</b> H07-01274
<b>INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:</b>		
Institution		Site
N/A		N/A
Other locations where the research will be conducted: Interviews will be conducted in the field. Participants will be asked to assist the researcher in choosing a suitable interview location such as an office or a meeting room at the participant's workplace, or a quiet location away from the workplace.		
<b>CO-INVESTIGATOR(S):</b> Stephen Baumber		
<b>SPONSORING AGENCIES:</b> N/A		
<b>PROJECT TITLE:</b> Ethical Dimensions of the Practice of Professional Forestry in the Southern Interior of British Columbia		

**CERTIFICATE EXPIRY DATE: July 13, 2008**

<b>DOCUMENTS INCLUDED IN THIS APPROVAL:</b>	<b>DATE APPROVED:</b> July 13, 2007	
Document Name	Version	Date
<b>Protocol:</b>		
Baumber Thesis Research Proposal	N/A	May 1, 2007
<b>Consent Forms:</b>		
Baumber Thesis Research Consent Form	N/A	June 1, 2007
Revised Baumber Thesis Research Consent Form	N/A	July 1, 2007
<b>Questionnaire, Questionnaire Cover Letter, Tests:</b>		
Baumber Thesis Research Interview Questions	N/A	June 12, 2007
<b>Letter of Initial Contact:</b>		
Baumber Thesis Research Contact Letter	N/A	June 1, 2007
The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.		
<p><b>Approval is issued on behalf of the Behavioural Research Ethics Board and signed electronically by one of the following:</b></p> <hr/> <p>Dr. Peter Suedfeld, Chair                  Dr. Jim Rupert, Associate Chair                  Dr. Arminee Kazanjian, Associate Chair                  Dr. M. Judith Lynam, Associate Chair                  Dr. Laurie Ford, Associate Chair</p>		

**Letter of Initial Contact:  
Ethical Dimensions of the Practice of Professional Forestry  
in the Southern Interior of British Columbia**

Dear Colleague,

You have been randomly selected to participate in a research study because you have been identified as a practising Registered Professional Forester (RPF) in the Southern Interior of British Columbia. This research is being undertaken by Stephen Baumber in partial fulfillment of a Master's degree in the Faculty of Forestry at UBC, under the supervision of Dr. Paul Wood. Your participation in a relatively brief (one- to two-hour) interview will provide us with valuable information and insights about how ethics and values play a role in the professional decisions made by RPFs.

The overall goal of this project is to develop an understanding of how RPFs participate in ethical decision making in the course of their professional practice. The ethical dimensions of professional forestry are only partially identified by the Association of BC Forest Professionals (ABCFP) Code of Ethics and guidelines for Standards for Professional Practice. The purpose of the study is to expand our understanding of this subject by talking to practitioners themselves. Through interviews with you and other RPFs we wish to explore how RPFs approach complex or difficult decisions, and how you differentiate between the ethical and practical aspects of these decisions.

Prior to the interview we ask that you prepare to discuss a complex or difficult decision you have made during your professional practice. This decision may be one which involved balancing multiple values or perhaps involved resolving ethical considerations in the process of finding a resolution or course of action. You may choose to discuss a decision from any aspect of your professional practice, and not necessarily a specific land-related issue. The following questions may assist you in selecting an example:

- Why does this decision stand out in your mind?
- Do you feel that the decision was in some way more complicated or difficult when compared to other decisions that you have made?
- Can you think of a non-technical issue in which you were unsure of the correct decision?
- Do you feel that the decision was technically challenging, in other words it required special information or expertise that you did not possess, or was it a matter of being unsure of what to do?

We suggest that you consider what specific details of your chosen decision (if any) should be kept confidential. If your example raises an issue of professional misconduct by yourself or another member, please attempt to keep identifying details from your discussion.

The one- to two-hour interview will be conducted by Stephen Baumber at a time and place that is convenient to you, but within the timeframe of the research (between July 1 and September 1) and when Mr. Baumber is scheduled to be in your area. He will arrange a time and day with you but will also ask you to suggest an appropriate location for the interview, such as a quiet office at your workplace or a similar space where the discussion can occur without interruptions and can be audio recorded.

Your involvement in this study is entirely voluntary and you may refuse to participate. If you choose to be involved, you will be free to not answer any of the questions and to withdraw from the research at any time without jeopardizing your relationship with the researchers or the University of British Columbia. Your identity will be kept strictly confidential, and to maintain your anonymity any reports or documents produced from this research will not contain your name or any identifying information about yourself. Information gathered during the interview, including all audio recordings and notes, will be kept in a secure location and destroyed after a five year storage period. No changes to these arrangements will occur without your voluntary and informed consent.

We ask that you respond to this invitation within two weeks. If we don't hear from you, Stephen will follow-up with an email or telephone call to discuss your interest in, and availability for, participating in this project. If you have any questions or desire further information regarding the objectives and methodology for this study please do not hesitate to contact Paul Wood at , by email at, or contact Stephen Baumber at 604-633-4381 or by email at .

Thank you for considering to participate in this research project.

Sincerely,

Dr. Paul M. Wood, RPF, RPBio  
Associate Professor

Stephen Baumber, RPF  
MSc (Forestry) Candidate



**Consent Form**  
**Ethical Dimensions of the Practice of Professional Forestry**  
**in the Southern Interior of British Columbia**

**Principal Investigator:** Dr. Paul M. Wood, RPF, RPBio  
Associate Professor  
UBC Forest Resources Management

**Research Assistant:** Stephen Baumber, RPF  
MSc Candidate  
UBC Forest Resources Management

**Funding:** This research project is self-funded

**Purpose:**

The central aim of this research is to develop an understanding of how registered professional foresters (RPFs) participate in ethical decision-making in the course of their professional practice. You have been invited to participate in this study as a randomly selected RPF practising in the Southern Interior of British Columbia.

**Study Procedures:**

Participation in this study will involve a one- to two-hour interview. This interview will be semi-structured and involve questions relating to a complex or difficult decision that you have made in the course of your professional practice. More specifically, you will be encouraged to discuss your process of deliberating a decision and consider how it might have involved balancing multiple values or involved resolving ethical considerations. The interview will be conducted in person by Stephen Baumber and will be audio recorded.

**Confidentiality:**

Your participation in this research is voluntary. You will not be identified in any reports that make up the completed study and all documents and electronic files related to your interview will be identified only by a code number. Access to all electronic records will be restricted by computer password and all information gathered during the interview, including audio recordings and notes, will be kept in a secure location and destroyed after a five year storage period. No change to these arrangements will occur without your voluntary and informed consent.

**Contact for information about the study:**

If you have any questions or desire further information with respect to this study, you may contact Paul Wood at or Stephen Baumber at .

**Contact for concerns about the rights of research subjects:**

If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at .

**Consent:**

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without jeopardy to your employment, reputation as a professional, or relationship with the researchers, or with the University of British Columbia.

Would you like to review the transcripts of your interview to ensure that confidential information has been sufficiently censored?

Yes

No

Your signature below indicates that you consent to participate in this study, and that you have received a copy of this consent form for your own records.

---

Participant Signature

---

Date

---

Printed Name of the Participant signing above

## **Appendix II: Case Study Summaries**

The following case summaries describe the specific decisions or situations that the participants presented during their interviews. They are provided here in generic terms without offering the participant's resolution in order to stimulate discussion and reflection. Each case summary was reviewed by the participant and where necessary they clarified pertinent details, increasing the construct validity of the study (Yin 2003).

### **Government Participants**

#### Water Quality versus Forest Health

A professional forester was responsible for reviewing a Forest Development Plan (FDP) amendment from a tenure holder. The amendment was to establish a series of cut blocks to harvest stands that had been affected by the mountain pine beetle. One of the areas that was included in the plan was contentious due to its location in a domestic watershed and the forester had concerns regarding terrain stability and water quality. However, the tenure holder did not need to provide proof of hydrological or geotechnical studies in order to receive approval for the amendment. There was also a significant time pressure to begin harvesting the area as soon as possible because of the effects of the beetle. The forester was concerned that the FDP amendment covered a mix of areas, some which had no immediate concerns and others which had significant public values involved. They felt that the community whose watershed was affected had the right to have more background information regarding the risks of the proposed development and an extended opportunity to comment before the amendment was approved. The forester felt caught between their professional responsibility to uphold the public interests in the watershed and delaying forest health operations in the non-contentious areas.

### Rehabilitation (for the Right Reasons)

A professional forester was responsible for the allocation of funds through a provincial program intended to offset costs for 'extraordinary' silvicultural obligations. The forester reviewed funding requests submitted by licensees and decided if a request qualified under the standards of the program and for what amount. Several applications had insufficient background information, procedural errors, or involved areas that did not truly qualify for funding. The forester felt that because the applications were prepared by fellow professional foresters they were in a position of disagreeing with a fellow member's professional opinion. The forester felt caught between meeting the intent of the program, which was to help improve the productivity of public forests, and entering into professional disagreements to maintain the integrity of the program.

### Honouring Agreements

A professional forester was assigned to facilitate discussions between a First Nations band (FN), the government, and licensees regarding the status of a Non-renewable Forest Licence (NRFL) granted to the FN. The central issue was that the volume allocated to the NRFL would have to be met by one or more local licensees allowing access to a portion of their licensed operating areas. Despite the relatively small volume involved, and the fact that the harvest was a one-time only event, after many months there was still no agreement as to where the harvest could occur. The forester identified the most logical geographical location for the NRFL cut block considering the location of the FN but the licensee involved was unreceptive and the location also had several provincial restrictions over its use. Both the licensee and the government were resisting discussions regarding the use of the area. The forester felt caught between the facilitating role of their job and feeling that the other professionals involved were in breach of their professional responsibility to resolve the matter. The forester also felt that the social values of honouring the

legal agreement with the FN band and delivering on the provincial government's "New Relationship" mandate were being significantly ignored.

### Professional Reliance

A professional forester was responsible for reviewing and recommending approval or refusal of a Cutting Permit (CP) to the District Manager during the transition period from the *Forest Practices Code* to the *Forest and Range Practices Act*. The CP was located within a community watershed containing a fish-bearing stream down-slope from the proposed cut block. After conducting a site visit with a fellow staff member who was a geotechnical engineer the forester established that the CP contained incorrect information and understated the potential risk of the area to natural and disturbance-caused landslides. They therefore felt that the CP also insufficiently dealt with the potential harm to the fishery and water quality values of the area from a landslide. The licensee provided an amendment to their CP but stood by the work of the original geotechnical engineer's report. The forester was caught between feeling that the CP was not sufficient and therefore it should not be approved under the legislation of the time, or, having expressed their concerns, they should recommend that the CP be approved under the terms of professional reliance outlined in the new legislation.

### Oversight versus Collaboration

A professional forester expressed their concerns regarding the adjustment of government foresters from working under the *Forest Practices Code* to working under the *Forest and Range Practices Act*. The shift in legislation changed the basis of government oversight by removing several requirements for approval during the management planning process (which on occasion was interpreted as a 'command and control' style of oversight). The change placed greater responsibility and accountability on those RPFs working for industry employers. They felt that

there is an ongoing cultural shift for all RPFs as professionals reconcile questions of the authority and responsibility they possess in their employment roles against the more common standard of sound forest stewardship.

### Due Diligence versus Forest Stewardship

A professional forester was in charge of reviewing a ‘free growing’ declaration submitted by a licensee forester. The free to grow declaration was based on a calculation of the stocking level as an average of the entire cut block. The government’s accepted interpretation of free growing at the time was that the stocking level had to be met in each hectare of the block, not as an overall average. The conflict between the two interpretations created two dilemmas for the forester, one legal and one ethical. First, they questioned whether the legislation was legally open to more than one interpretation, and second, they questioned whether the lack of reporting details from the licensee forester constituted an ethical breach. Neither the government nor the licensee were willing to adjust their respective legal interpretations and the case was brought to the Forest Appeals Commission. The Commission decided that the licensee's legal interpretation was acceptable. The forester still felt that the free growing declaration needed to provide sufficient information to understand the condition of the entire cut block. The forester felt caught between accepting that the free growing declaration was legally acceptable and the feeling that the licensee forester was still professionally responsible to openly disclose areas of the cut block that were poorly stocked in the interests of good forest management.

## **Industry Participants**

### Economic Pressure from the Appraisal System (1)

A professional forester discussed the appraisal system which calculates the stumpage tax payable to the provincial government for timber harvested from Crown land. The forester gave an example of how the system negatively influenced management decisions for a cut block that required the use of a cable harvesting system. A long-line cable harvesting system requires less road to be built than a grapple-yarding system, resulting in less soil disturbance from roads within a cut block, and was preferred by the forester for harvesting steep slopes. However, because the appraisal system allows road costs to be factored in as deductions to the overall stumpage calculation, an increase in the amount of road built within the block can reduce the overall cost of stumpage to the licensee. Hence, the forester felt that the appraisal system introduced pressure on a forester to use the grapple-yarding system that may create more environmental disturbance but created a better economic return to their employer. The forester also felt a sense of obligation to contractors in the local community who needed grapple-yarding contracts to recoup their investment in the expensive equipment. The forester felt caught between making a decision based on their professional responsibility to forest stewardship and improving the economic return to their employer and the community by damaging the environment.

### Economic Pressure from the Appraisal System (2)

A professional forester discussed two issues related to the appraisal system which calculates the stumpage tax payable to the provincial government for timber harvested from Crown land. They felt the system placed professional foresters in ethically ambiguous situations by making economic values more important than environmental concerns in a forest management decision. The first example considered conventional roadside logging where a longer skidding distance increased the harvesting costs. By constructing more roads within the block the skidding

distances could be reduced, thereby decreasing logging costs. Environmentally and silviculturally site degradation should be kept to a minimum so a balance must be found between the logging costs and the best treatment of the site. The limits of this balance are set by a legislated allowable amount of site degradation, so in reality only a certain amount of road is ultimately permissible. Because the cost of road construction is a deduction in the calculation of overall stumpage, the appraisal system adds an economic incentive to maximize the allowable site degradation. A forester may therefore need to choose between minimizing site disturbance or minimizing the stumpage cost to their employer. The second example was the practice of 'block-blending' after a timber cruise has been conducted to assess the quality of the timber for the various cut blocks within a development plan area. The appraisal system allows for stumpage to be decreased if the piece size of a particular cutting permit is below a specific threshold average size. 'Block-blending' meant combining the cruise information for blocks that contain wood larger than the appraisal threshold and blocks that have lower quality wood. By manipulating the combination of blocks under a cutting permit one could maximize the amount of 'good' wood included in a permit that averages out as under the appraisal threshold (thereby lowering the overall stumpage payable for all of the wood within the cutting permit). A forester can be caught between choosing to maximize the economic return to their employer or ensuring that the government, and therefore the public, receives stumpage based on the true value of every tree.

### The Infraction and the Fault

A professional forester was given the task of responding to the charge of an environmental infraction brought forward by the government against their employer. It was alleged that a culvert along a cut block road had been improperly blocked and that during a heavy rain the ditch downhill from the culvert could not handle the increased volume and water subsequently overflowed across the road causing an erosion event. The licensee hired a geo-engineer to study



the incident. The engineer produced a report stating that the erosion event was not caused by the blocked culvert but rather it had resulted from a slump into the ditch that had diverted water onto the road. The engineer's report suggested that the slump may have been a result of incorrect road drainage upslope of the slump event. Hence, although the report clearly indicated that the blocked culvert was not at fault it suggested that the licensee was still potentially liable for the slump into the ditch that ultimately caused the erosion event. In subsequent discussions, however, the government did not pursue this other possibility. The licensee forester felt caught between correcting the government to pursue the slump as the most likely cause of the erosion event (putting their employer at risk of fault) or arguing that they were not at fault based on the allegation that the blocked culvert was the cause.

### Safety and the Operator

A professional forester discussed decisions involving the safety of harvesting plans. For example the right to refuse work protects machine operators who feel that working in an area with a certain degree of side slope puts them at risk. However, if a cut block contained a small, steep area, the safety regulation only deals in an absolute measure of maximum slope but does not define what might constitute a 'slope', such as whether it means the average of a varied slope or an area of continuous slope that exceeds the maximum. The ambiguity in the regulation leads a forester to rely, within reason, on the expertise of the machine operator to judge their ability to safely work within a cut block. The forester felt that the ambiguity of some safety regulations meant that their professional responsibility to ensure a safe worksite becomes partially dependent on the judgment of the machine operator.

## Forest Health versus Other Values (1)

A professional forester gave two examples of difficult decisions that arose from the response to the mountain pine beetle epidemic by the Ministry of Forests and Range (MFR) in their district. The first example was an MFR policy to reserve healthy or 'green' stands for future harvest. The MFR asked licensees to source one fifth of the timber supply area's annual cut volume from 'beetle blocks'. A beetle block was defined as a stand that contained a certain threshold of beetle-affected trees. The mills owned by the forester's employer could accept beetle-affected trees, but they also required a steady component of green wood as the beetle trees were not usable for certain wood products. The forester submitted a cutting permit for a stand that had a mix of green wood and beetle-affected trees. However, the MFR decided that the stand did not qualify as a beetle block. The forester needed to decide if they should proceed with harvesting the block, using up a portion of their green wood allowance on the beetle-affected stand, or if it would be more advantageous to pursue a different area that maximized the amount of green wood. The forester felt caught between meeting the needs of the mills that provided economic benefit to their community and a professional responsibility to regenerate beetle-affected stands and preserve unaffected (green wood) areas for future harvest. The second example resulted from a general increase by the MFR in the allowable annual cut for the timber supply area within which the licensee operated. The MFR issued Non-replaceable Forest Licenses to new licensees within the forester's employer's historic operating area. The result was an increase in harvesting at a rate higher than the previously accepted sustainable level. This impacted the forester's ability to accommodate higher-level social objectives such as visual quality and wildlife habitat within their development area. The forester felt caught between supporting the MFR's objective of extending the harvesting uplift to new licensees and being unable to meet the higher-level social objectives for which they were responsible.

### Forest Health versus Other Values (2)

A professional forester discussed the pressure from the Ministry of Forests and Range (MFR) to direct their harvesting activities towards salvaging stands affected by the mountain pine beetle. The mills owned by the forester's employer required a variety of species and a steady component of green wood as the beetle-affected trees were not usable for certain wood products. An additional complication was the need to assess the long-term worth of harvesting a beetle affected stand. If it had a low component of pine it may be best to leave the stand for a future harvest. If it was on a site that would be difficult to regenerate the licensee would be responsible for a lengthy and expensive period of reforestation. The forester felt caught between the need to actively return beetle-killed stands to productivity for the future and addressing the economic needs of their employer and ensuring their mill continued to provide an economic benefit to their community.

### The Status-quo and Stewardship

A professional forester discussed a situation that arose from a plan being developed to manage caribou habitat in their region. A series of management recommendations had been developed to address the needs of caribou without considering their effect on other resource values. The forester was aware that although the proposed guidelines would benefit local caribou herds they would also complicate their current management strategies. However, unless the guidelines were adopted by government there was no legal obligation for the forester to accommodate them in their management practices. The forester felt caught between maintaining a less complicated status-quo management regime for their employer and their professional responsibility to promote the stewardship of caribou habitat in the forest using the latest techniques.

### Unresolved Public Acceptance

A professional forester discussed the development of an area adjacent to a large community. Although the area was designated as part of the timber harvesting land base the forester began encountering strong community resistance to the proposed harvesting activities. Over the course of four or five years the forester investigated numerous ecological and social values and made adjustments to their management plans. They conducted numerous field trips, held public meetings and invested in resource inventories and studies. A review conducted by the Ministry of Environment reported that no special values were present and the area should remain as part of the timber harvesting land base. Community resistance was reduced but still existed amongst a small group. The forester felt caught between implementing a development plan that seemed to address all possible social and environmental concerns and having local public acceptance for the development remain unresolved.

### Stakeholder Impasse

A professional forester discussed an issue arising from developing access to a pine stand that had become infested with mountain pine beetle. The area was important to a local First Nations (FN) band and several cattle ranchers who held grazing tenures for the area. The forester and their staff designed an access plan that involved building a new main road. The ranchers preferred that an old existing road into the area be upgraded instead. The FN band preferred a third option that crossed through their reservation, allowing them to control access into the area. The forester felt that the old road suggested by the ranchers was costly and unsafe to develop and was operationally in a poor location. The old road also went through a portion of sheep winter range which the forester was not permitted to disturb. The location of the route preferred by the FN band would also impact sheep winter range. Developing an access agreement with the FN band would also further delay the harvest of the beetle infested timber, resulting in economic impacts

to the licensee and the government as the wood quality in the trees degenerated. The forester felt caught between accessing the beetle infested timber as soon as possible and compromising their professional recommendation by fully addressing the local interests.

## **Consulting Participants**

### Between the Profession and the Client

A professional forester was under contract to a group of non-profit organizations to raise public awareness about local caribou herds and to resolve concerns about caribou habitat in a way that was mutually agreeable to the organizations the forester was working with and the local forest industry. After a year and a half of studying the issue, and numerous consultations with associated experts, the forester had developed a working knowledge of much of the academic research related to caribou. Having met previously with representatives from local communities and licensees the forester attended a presentation to municipal councils and regional government given by representatives of a local forest industry group. A few members of the public and the local media were also present. During the presentation the forester noted that some of the information being given misrepresented research findings. The forester felt that these inaccuracies misled the local government representatives and the public with respect to forestry matters, constituting a professional ethical breach. The forester approached the industry group directly to request that they publicly correct the inaccuracies but failed to receive a satisfactory response. The forester was uncertain as to whether they were professionally obliged to pursue the matter through the ABCFP. They were concerned that bringing a complaint against the industry group might compromise the positive relationship they had cultivated for their client. The forester felt caught between their professional obligations under the ABCFP bylaws and their desire to maintain a constructive dialogue between their clients and the industry representatives.

### Between Stewardship and the Client

A professional forester was hired as a consultant to the Ministry of Forests and Range (MFR) to complete a regularly scheduled silvicultural survey of a regenerating post-harvest stand. The stand had previously been surveyed by a non-professional forest technologist who had declared it to be severely damaged by disease. The MFR had therefore planned a heavy sanitization treatment for the block to restart the plantation. After completing the scheduled survey of the block the consulting forester found that the extent of the disease did not exceed the allowable limits set out in currently accepted treatment standards and hence the technologist had erred and the sanitization treatment was not warranted. In support of their position the forester drew attention to a second block where a similar diagnosis had led to a similar sanitization treatment which had subsequently resulted in an even more problematic regenerating stand. The forester not only disagreed with the non-professional technologist's assessment but was also placed into a disagreement with the MFR professionals and by default the District Manager who had ultimately approved the sanitization treatment. The forester felt caught between an escalating professional disagreement with their client and a responsibility to stewardship and what was best for the stand.

### Personal Values and Professional Objectivity

A professional forester discussed the difficulty in reconciling personal values with both their professional consulting work and their position as a teacher in a college forestry program. The forester felt a strong spiritual and emotional connection to forest ecosystems. They recognized that many of the forestry workers in their community did not necessarily share this connection and they were hesitant to allow their personal values to be evident in their work. They felt that in a limited job market if they were seen as 'alternative' they could potentially lose clients. The forester felt caught between arguing to preserve areas they encountered in a work setting that

contained spiritual or ecological values and the rights of their client to development. In the context of their teaching responsibilities the forester felt that information regarding ecology and forest practices need to be delivered in an unbiased manner and therefore they did not include their own personal views as part of their teaching. However, the forester felt that their personal values regarding the forest were a great strength to their own understanding of forest ecosystems and sense of stewardship, and that an unbiased teaching environment prevented them from sharing this with the students. The forester felt caught between maintaining a professional distance from their personal values while teaching and failing to demonstrate a personal ethic of forest stewardship to their students.

#### The Public Comes Second

A professional forester discussed their role in managing a large portion of private property that was designated as a 'managed forest' under the *Private Managed Forest Land Act (PMFLA)*. Under the PMFLA the forester was obligated to manage for four specific public values; habitat, reforestation, soil conservation and water. The forester felt that due to the nature of private ownership the interests of the private land owner superseded those of the public in all other respects. However, the ABCFP Code of Ethics states that a member has a primary ethical responsibility to the public as well as their employer. The forester felt that they were caught between their responsibility to place the private land owner's interests first and violating their professional Code of Ethics.

#### Terminating Staff

A professional forester discussed their experience when dealing with a staff member as the manager of a multi-faceted forest estate operation. It became apparent to the forester that the staff member was not generating enough revenue from their activities in their aspect of the

operation to balance the cost of keeping them employed. In the course of discussing the matter with the staff member to find solutions that would improve the economic balance the staff member became defensive and aggressive towards the forester. The forester made the decision that the best option was to terminate the staff member's employment. However, the forester was also aware that the staff member was not highly employable elsewhere and had very little resources to support themselves if they lost their employment. The forester felt caught between the professional need to manage the estate in the best interests of their employer and the impact on the life of the staff member by being dismissed.

### The Assumptions of Sustainable Harvest Levels

A professional forester discussed two examples of ethical issues in the calculation of sustainable harvest levels. The first example was the calculation of a long-term (150 to 200-year) harvest flow projection. Sometimes a "pinch point" occurred within the projected time period where the projected harvest level became equivalent to the projected amount of total available volume. The forester felt that it was highly unlikely that a licensee would be able to achieve a harvest level that required every single cubic metre of available timber to be located and harvested. Hence the forester felt that a pinch point represented an unsustainable harvest level. However, because of future tenure uncertainty clients often did not view a future pinch point as a risk worth addressing. The forester felt caught between a professional responsibility to develop a more conservative harvest level and the client's right to assume the risk of a future pinch point. The second example had to do with completing research contracts intended to improve the harvest flow modeling process. The calculation of available timber volumes over time is based on hundreds of assumptions about the effects of harvesting and silviculture practices, natural disturbances, and forest productivity. These assumptions affect the calculation of future available volume both negatively (lowering the projected volume level) and positively (increasing



projected the volume level). It is generally accepted by most analysts that the positive and negative affects become more or less balanced during the modeling process. The forester felt that most research to improve the accuracy of the modeling process was focused on making positive assumptions more positive and negative assumptions less negative (or even turning them positive). Hence there was an investment bias towards research that would increase the predicted harvest flow. The forester felt caught between their professional responsibility to provide the best results for their client and knowingly eroding the 'balance' of the assumptions used in the modeling process.

### Appendix III: Codes used in the first pass of analysis of the interview data.

Major Theme	Sub-theme	Modifier	Description	
Decision Making			The participant discusses the specifics of how their decision or situation was approached and considered.	
	Resources		A Participant describes the resources used to assist them in making a decision.	
		Legislation	A Participant refers to legislation or established guidelines as a guide for resolving their decision or situation.	
		Peers	A Participant refers to engaging peer support to assist in resolving their decision or situation.	
		Due Diligence	A Participant refers to due diligence as a guide in resolving their decision or situation.	
		Code	A Participant identifies the ABCFP Code of Ethics as a guide in resolving their decision or situation.	
		Science	A Participant refers to ecological or land-related limitations to their decision or situation.	
		Personal Values	A Participant refers to their own personal values as a guide in resolving their decision or situation.	
		Social Values	A Participant refers to social values as being a guide in resolving their decision or situation.	
		Legal	A Participant discusses using a legal resource as a guide in resolving their decision or situation.	
		ABCFP	A Participant sought clarification or counsel from the ABCFP as a guide in resolving their decision or situation.	
		Non-foresters	A Participant describes getting advice from professionals or laypeople outside of forestry as a guide in resolving their decision or situation.	
		Experience	A Participant describes drawing on their own previous experience as a guide in resolving their decision or situation.	
		Staff	A Participant supervises staff or consultants who provide input into resolving their decision or situation.	
Method	A Participant describes their method of decision-making.			
Resolution	A Participant describes the final resolution to their decision or situation.			
Influences	A Participant identifies what influences the values they consider when resolving a decision or situation.			
Decision	A Participant identifies a specific decision that they had to make.			
Recognition			The Participant describes how they recognize a decision or situation that requires ethical deliberation.	
	Values		A Participant specifically identifies some of the values involved in their decision or situation.	
	Difficulty		A Participant describes the difficulty of their decision or situation.	
	Ethical		A Participant describes their perceptions of the ethical dimensions of a decision or situation.	
	Discretion		A Participant describes the elements of discretion in their decision or situation.	
	Non-ethical		A Participant describes why their example should not be considered an ethical decision.	
Responsibility			The Participant indicates why they feel responsible to resolve a decision or situation.	
	Professional		A Participant comments on their professional obligation.	
	Qualified		A Participant indicates that they felt best qualified or situated to make a decision.	
	Decision Practice			A Participant identifies their level of responsibility during the time of the decision they discuss.
		Independent		A Participant is solely responsible for the decision they describe.
		Deferred		A Participant forms recommendations for a decision-maker.
	Current Practice		A Participant describes the level of responsibility they currently have for making decisions.	
	Ownership		A Participant describes the responsibility for resolving a decision or situation as theirs.	
	Public		A Participant discusses having public values defined for the professional and not by the professional.	
	Substitution		A Participant describes how legislation or guidelines replace professional discretion.	
	Removed		A Participant indicates that the conflicting values of a decision or situation prevent a resolution.	
	Reliance		A Participant comments on professional reliance.	
	Independence		A Participant describes how independence is part of professional practice.	
Registration			The Participant provides their registration date.	
Practice			The Participant identifies their area or scope of practice.	

<b>Major Theme</b>	<b>Sub-theme</b>	<b>Modifier</b>	<b>Description</b>
Stratification			The Participant discusses the stratification of professionals into separate employment groups.
Confidentiality			The Participant addresses the confidentiality of the information they are providing.
Career			The Participant identifies the point in their career at which the decision or situation occurred.
	Early		A Participant's decision or situation took place early on in their professional career.
	Mid		A Participant's decision or situation occurred at a midpoint in their professional career.
	Recent		A Participant's decision or situation occurred recently in their professional career.
	Ongoing		A Participant's decision or situation is recurring and requires constant resolution.
Situation			The Participant describes a complex or difficult decision or situation.
	Legislation		A Participant describes how their decision or situation involved the interpretation of legislation.
	Disagreement		A Participant describes how their decision or situation involved a disagreement with another professional.
	Background		A Participant describes the particulars of a decision or situation (exposition).
	Conflict		A Participant describes how legislation or a legal requirement conflicted with their professional judgment.
	Public		A Participant describes how their decision or situation involved having to address public pressure.
	Stakeholders		A Participant describes how their decision or situation involved having to balance the interests of other stakeholders.
Socio-legislative			A Participant discusses a social, cultural, or legislative shift that affected their decision or situation.

## Appendix IV: Second pass analysis

**Table 0.1 Number of text records by participant and employer category.**

<b>Government</b>	73	<b>Industry</b>	38	<b>Consultant</b>	30
<b>Government</b>	54	<b>Industry</b>	62	<b>Consultant</b>	65
<b>Government</b>	51	<b>Industry</b>	55	<b>Consultant</b>	51
<b>Government</b>	51	<b>Industry</b>	42	<b>Consultant</b>	35
<b>Government</b>	<u>33</u>	<b>Industry</b>	<u>83</u>	<b>Consultant</b>	<u>44</u>
	262		225		280
					767

**Table 0.2 Major themes with their associated modifiers.**

<b>Difficulty</b>	Aligning Priorities	<b>Ethics</b>	Belief	<b>Influence</b>	Balance	<b>Values</b>	Advantage
	Appraisal System		Business Relationship		Community		Artificial
	Assumptions		Code of Ethics		Due-diligence		Balance
	Balance		Complexity		Economic		Commitment
	Bureaucracy		Conscience		Education		Community
	Change		Disclosure		Employer		Confidentiality
	Communication		Discretion		Environment		Defensibility
	Complexity		Ethical Actions		Expediency		Defined Values
	Compromise Required		Ethical Decisions		Experience		Defining Social Values
	Conservatism		Ethical Dilemma		First Nations		Denial
	Coordination		Ethical Fitness		Forest Health		Economic
	Deferred		Ethics and Legislation		Higher Level Plans		Education
	Degree of Implications		Fairness		Ignorance		Employer
	Disagreement		Forced Ethics		Independence		Employment
	Emotion		Hierarchy		Interpersonal		Factual Accuracy
	Ethical Spectrum		Human Rights		Logistics		Fairness
	Experience		Independence		Performance		First Nations
	Higher Level Plans		Interpreting Legislation		Personal		Flexibility
	Imperfect Knowledge		Judgment		Political		Forest
	Incomplete Information		Judging Others		Professional		Future Benefits
	Inflexibility		Land Ethic		Relevance		Green wood
	Inherent		Legal		Risk		Harmony
	Lack of Precedence		Legislation		ROI		Hierarchy
	Legal		Not Ethics		Safety		Influence
	Liability		Participation		Scope of Practice		Integrity
	Micromanaging		Peers		Third-party		Legal Title
	No Definite Answer		Personal Ethics		Tradition		Legislation
	Number of Values		Personal Values				Local Interests

<b>Difficulty (cont.)</b>	Partiality Personal Values Political Professional Risk Social Licence Time Too Many Values Uncertainty
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<b>Legislation</b>	Conflict Legislation Substitution
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<b>Responsibility</b>	Deferred Independent Ownership Qualified
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<b>Decision</b>	Current Practice Deferred Discretion Legislation Method No Resolution
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<b>Ethics (cont.)</b>	Practice Pressure Professional Rare Responsibility Risk Scope of Practice Self-regulation Status-quo Stewardship Define Policy
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<b>Public</b>	Pressure ABCFP
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<b>Resources</b>	Code of Ethics Due-diligence Experience Legal Non-professionals Peers Science Staff
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<b>Shift</b>	Change Legislation Oversight Political Professional Professional Reliance Public Input Public Interest Reduced Information Responsibility Results-based Stewardship Unguided
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<b>Professional</b>	Disagreement Independence Obligation Professional Reliance
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<b>Stratification</b>	Employer
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<b>Values (cont.)</b>	Management Goals Multiple Values Personal Knowledge Personal Relationships Private Land Process Professional Protection Public Approval Public Interest Public Ownership Public Perceptions Realism Resilience Responsibility Safety Scrutiny Self-benefit Social Social Contract Social Status Timber Resource Time Tradeoffs Undermine Relationships
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## Appendix V: Results for Professional Foresters Employed by the Government

The table shows the modifiers used by each participant to describe the major themes. Colour highlighting indicates modifiers that are used by multiple participants.

A	B	C	D	E
<b>Difficulty:</b> The participant discussed why they felt their decision or situation to be difficult.				
Aligning Priorities Balance Communication Professional	Change Compromise Required Incomplete Information Lack of Precedence Political Time	Deferred Disagreement No Definite Answer	Complexity Degree of Implications Experience Risk Too Many Values	Change Conservatism
<b>Ethics:</b> The participant discussed ethics as related to their decision or situation.				
Ethical Decisions Hierarchy Professional	Fairness Practice	Belief Complexity Forced Ethics Interpreting Legislation Stewardship	Ethical Decisions Professional	Participation Peers Personal Values Stewardship
<b>Responsibility:</b> The participant discussed the level of responsibility that they had for the decision they presented or how they felt capable of resolving the decision or situation.				
Deferred	Independent Ownership Qualified	Deferred Ownership Qualified	Deferred	Deferred
<b>Decision:</b> The participant discussed the specifics of how their decision was approached and considered.				
Current Practice Deferred Discretion Legislation Method	Current Practice Deferred Discretion Legislation Method	Current Practice Deferred Discretion Legislation Method	Current Practice Deferred Legislation Method	Current Practice Deferred Discretion Method
<b>Influence:</b> The participant discussed the influences on their decision that affected the values that they considered.				
Community Due-diligence Economic Employer Forest Health Independence Relevance Risk	Expediency Performance  Relevance ROI	Balance  Employer	Community Environment Employer Logistics Political Personal Third-party	Economic  Political Tradition
<b>Values:</b> The participant discussed specific values they recognized as being part of the decision or situation that they presented.				
Forest Influence Management Goals Multiple Values Public Approval Time Tradeoffs	First Nations	Did not discuss.	Education Process Responsibility	Flexibility Legislation Process Professional

A	B	C	D	E
<b>Resources:</b> The participant discussed the resources they drew upon to resolve the decision or situation.				
<p>Peers Science Staff</p>	<p>Due-diligence Experience Legal Peers</p>	<p>ABCFP Code of Ethics Due-diligence Legal Non-professionals Peers</p>	<p>Due-diligence Experience</p>	<p>ABCFP Due-diligence Experience Legal Peers</p>
<b>Legislation:</b> The participant discussed how legislation affected their decision or situation.				
<p>Legislation</p>	<p>Legislation</p>	<p>Conflict Legislation Substitution</p>	<p>Legislation</p>	<p>Legislation</p>
<b>Professional:</b> The participant discussed how being a professional was important in how they regarded their decision or situation.				
<p>Obligation Professional Reliance</p>	<p>Disagreement</p>	<p>Disagreement</p>	<p>Disagreement Independence Professional Reliance</p>	<p>Did not discuss.</p>
<b>Public:</b> The participant discussed how the public affected the way that they regarded their decision or situation.				
<p>Pressure</p>	<p>Did not discuss.</p>	<p>Define Policy</p>	<p>Did not discuss.</p>	<p>Did not discuss.</p>
<b>Shift:</b> The participant discussed how legislation or public perception has shifted and therefore affected an aspect of their professional practice.				
<p>Oversight Political Reduced Information Responsibility</p>	<p>Did not discuss.</p>	<p>Did not discuss.</p>	<p>Stewardship</p>	<p>Professional Results-based Stewardship</p>
<b>Stratification:</b> The participant discussed the stratification of the profession into employer groups.				
<p>Did not discuss.</p>	<p>Did not discuss.</p>	<p>Employer</p>	<p>Employer</p>	<p>Did not discuss.</p>

## Appendix VI: Results for Professional Foresters Employed by Industry

The table shows the modifiers used by each participant to describe the major themes. Colour highlighting indicates modifiers that are used by multiple participants.

A	B	C	D	E
<b>Difficulty:</b> The participant discussed why they felt their decision or situation to be difficult.				
Appraisal System Bureaucracy Complexity	Complexity Legal Liability Micromanaging Number of Values	Uncertainty Change Coordination Disagreement Inflexibility Inherent No Definite Answer	Balance	Balance Deferred Higher Level Plans Social Licence
<b>Ethics:</b> The participant discussed ethics as related to their decision or situation.				
Ethical Actions Ethical Decisions  Not Ethics	Conscience Ethical Decisions Ethical Dilemma Not Ethics Professional Rare	Ethical Decisions  Not Ethics Risk	Discretion Ethical Decisions Ethical Fitness Ethics and Legislation Judging Others Personal Values	Ethical Decisions Pressure Stewardship
<b>Responsibility:</b> The participant discussed the level of responsibility that they had for the decision they presented or how they felt capable of resolving the decision or situation.				
Independent  Qualified	Independent Ownership Qualified	Independent	Independent	Independent Ownership
<b>Decision:</b> The participant discussed the specifics of how their decision was approached and considered.				
Current Practice  Legislation Method No Resolution	Current Practice Discretion Legislation Method	Current Practice  Legislation Method	Current Practice Discretion Legislation	Current Practice Discretion Legislation Method Deferred
<b>Influence:</b> The participant discussed the influences on their decision that affected the values that they considered.				
Economic Interpersonal Logistics  Professional Tradition	Economic Employer Community First Nations Independence Personal Safety Relevance	Economic  Community Environment Forest Health Logistics Political	Environment Forest Health  Safety	Economic Employer Experience Forest Health Logistics Political Professional Relevance
<b>Values:</b> The participant discussed specific values they recognized as being part of the decision or situation that they presented.				
Community Defined Values Economic  Hierarchy Personal Relationships  Timber Resource	Advantage Defensibility Influence Public Perceptions Responsibility Safety Self-benefit Scrutiny Social	Artificial Commitment Economic Employment Factual Accuracy Fairness Green wood Hierarchy Legal Title	Defensibility Defining Social Values Economic  Forest Local Interests Public Perceptions Timber Resource	Balance Defining Social Values Economic First Nations Hierarchy Multiple Values Process Scrutiny Social Contract



A	B	C	D	E
<b>Resources:</b> The participant discussed the resources they drew upon to resolve the decision or situation.				
Did not discuss.	Code of Ethics Experience Peers	Peers Science	Code of Ethics Experience Peers	Due-diligence Experience Peers Science Legal Staff Non-professionals
<b>Legislation:</b> The participant discussed how legislation affected their decision or situation.				
Conflict	Legislation	Conflict	Conflict	Substitution
<b>Professional:</b> The participant discussed how being a professional was important in how they regarded their decision or situation.				
Obligation	Obligation Professional Reliance	Obligation Independence Professional Reliance	Did not discuss.	Obligation
<b>Public:</b> The participant discussed how the public affected the way that they regarded their decision or situation.				
Did not discuss.	Pressure	Did not discuss.	Pressure	Pressure Define Policy
<b>Shift:</b> The participant discussed how legislation or public perception has shifted and therefore affected an aspect of their professional practice.				
Did not discuss.	Unguided	Oversight	Professional Reliance	Professional Reliance Balance Change Legislation Public Interest

## Appendix VII: Results for Professional Foresters Self-Employed or Employed by Consultants

The table shows the modifiers used by each participant to describe the major themes. Colour highlighting indicates modifiers that are used by multiple participants.

A	B	C	D	E
<b>Difficulty:</b> The participant discussed why they felt their decision or situation to be difficult.				
Did not discuss.	Lack of Precedence Experience Personal Values No Definite Answer Partiality	Imperfect Knowledge Experience Personal Values	Emotion Ethical Spectrum	Assumptions Change Complexity No Definite Answer
<b>Ethics:</b> The participant discussed ethics as related to their decision or situation.				
Ethical Decisions	Ethical Fitness Independence Judgment Responsibility Personal Ethics Practice Scope of Practice Self-regulation	Land Ethic	Code of Ethics Ethical Decisions Human Rights Legislation	Business Relationship Ethical Decisions Disclosure Legal Personal Ethics Practice Status-quo Not Ethics
<b>Responsibility:</b> The participant discussed the level of responsibility that they had for the decision they presented or how they felt capable of resolving the decision or situation.				
Independent	Independent Qualified	Independent Qualified	Independent Ownership	Deferred Ownership
<b>Decision:</b> The participant discussed the specifics of how their decision was approached and considered.				
Method Current Practice	Method Current Practice Legislation Deferred	Method Current Practice Legislation Deferred	Method Current Practice Legislation	Method Current Practice Legislation No Resolution
<b>Influence:</b> The participant discussed the influences on their decision that affected the values that they considered.				
Third-party Professional Ignorance Scope of Practice	Third-party Professional Economic Employer Higher Level Plans	Employer Professional Education Environment	Education Professional Economic Political	Employer Independence Economic Political ROI
<b>Values:</b> The participant discussed specific values they recognized as being part of the decision or situation that they presented.				
Confidentiality Education Integrity Protection Public Perceptions Undermine Relationships	Denial Economic Personal Knowledge	Employer Forest Future Benefits Professional Public Ownership Resilience	Harmony Economic Private Land Professional Scrutiny Social Status	Economic Social Public Interest Realism
<b>Resources:</b> The participant discussed the resources they drew upon to resolve the decision or situation.				
ABCFP Code of Ethics Science	ABCFP Code of Ethics Experience Peers Non-professionals	Code of Ethics Experience Peers Science	Peers	Peers

A	B	C	D	E
<b>Legislation:</b> The participant discussed how legislation affected their decision or situation.				
Substitution	Did not discuss.	Did not discuss.	Conflict	Conflict
<b>Professional:</b> The participant discussed how being a professional was important in how they regarded their decision or situation.				
Disagreement	Disagreement Obligation	Obligation	Professional Reliance Obligation	Obligation
<b>Public:</b> The participant discussed how the public affected the way that they regarded their decision or situation.				
Did not discuss.	Did not discuss.	Define Policy	Did not discuss.	Define Policy
<b>Shift:</b> The participant discussed how legislation or public perception has shifted and therefore affected an aspect of their professional practice.				
Did not discuss.	Did not discuss.	Public Input Public Interest	Did not discuss.	Did not discuss.

## Appendix VIII: Frequency of Modifiers in Each Major Theme by Employer

(C = Consultant, G = Government, and I = Industry)

