

1. Situation: Changing data to make a site compliant

Larry is an agrologist consulting in reclamation. Business has been slow and Larry is one of a few staff left in the consulting firm. One of the firm's few remaining clients is very eager to obtain a reclamation certificate on a wellsite that was challenging to reclaim due to poor soil conservation during construction in the 1990s. The client feels they have spent too much time and money on the site and want the site certified so they no longer have to pay surface lease payments. Larry was not involved in the reclamation of the site and the only staff member who has knowledgeable of the site's history has left the consulting company.

Larry completed the reclamation assessment and entered the data into the Record of Observations (RoO) form, and found the site did not pass the 2010 Wellsite Reclamation Criteria due to insufficient topsoil depths in a two areas. Larry decided to take additional field measurements in the deficient areas to see if the initial measurements were anomalies or representative of that part of the site. The additional measurements revealed the area is topsoil deficient. The vegetation and other assessment parameters passed the criteria. The landowner has expressed vague concerns about the site, possibly due to surface lease payments ending when the reclamation certificate is issued rather than environmental quality issues.

Larry could ask for a justification for the topsoil deficiency from the AER, but he is concerned that might raise flags with the landowner and the AER may refuse to certify the site. Requesting a justification may also slow the certification process. Larry hasn't shared the site failure results with anyone and wonders what to do. As an experiment, he enters false topsoil depth data into the RoO to see what happens and the RoO indicates the site passes. Larry then considers three options:

- a. Tell the client the site doesn't pass the criteria and request more funding and time for the site to be successfully reclaimed?
- b. Request a justification for the topsoil deficiency from the AER and see what happens?
- c. Enter the false topsoil depth data to indicate the site passes criteria, so the reclamation certificate application will be quickly processed as routine and the site certified?

1. Does Larry have any other options?
2. What is the ethically responsible way for Larry to proceed?
3. Which sections, if any, of the Guidelines to the Ethical Responsibilities of Agrologists apply in this situation?

2. Situation: New graduate working in reclamation

Jordan graduated recently with a degree majoring in reclamation and was hired shortly afterward by an environmental consulting firm. All of Jordan's coworkers graduated from a similar college or university program within the last 5 years, including the company's owner. Jordan is planning to obtain a PAg designation in the future.

The consulting firm Jordan works for does reclamation work at a very competitive price as staff like Jordan are just starting out and have low charge-out rates. The company was recently successful in securing a large client with several wellsites that only need a reclamation assessment to determine if they meet the 2010 Wellsite Reclamation Criteria. If the sites meet the criteria, the reclamation certificate applications can be submitted to the AER. The client has indicated their goal is to have every wellsite that only requires an assessment certified this year.

Jordan has never assessed a site, so a colleague with two years of experience provides some training at one site before Jordan is tasked with assessing an additional 10 sites on his own. Initially, Jordan called his colleague or the owner from the field to ask for advice when he was uncertain on how to assess a parameter or when a problem occurred. However, after a few calls, he was told by his colleague and the company owner to "just read the criteria document and figure it out, as it's not difficult." After the assessments were complete, the owner stated that Jordan had to sign the professional declaration form as required by the AER and Alberta Environment and Parks as he did the assessments. Jordan knows he doesn't have five years of experience conducting reclamation assessments or a professional designation as required by Alberta Environment and Parks for professional sign off on the work and he wonders if anyone at the AER will check if he does sign the declaration.

1. Are there any ethical issues that Jordan encountered while he conducted the reclamation assessments?
2. How should Jordan proceed concerning signing the professional declaration?
3. Which sections, if any, of the Guidelines to the Ethical Responsibilities of Agrologists apply in this situation?

3. Situation: Phase 2 environmental site assessment (ESA).

Alexi is a PAg who primarily conducts Phase 2 ESAs for the environmental consulting company she works for. As client's budgets are tight, Alexi and her manager know they have to allocate site budgets wisely for the ESAs and limit sampling to the areas where spills likely occurred, sumps are located and at well center. If the clients sites ever get a sufficient budget to move to reclamation certification, they believe the AER won't likely audit one of their reclamation certified sites for subsurface contamination.

Alexi is conducting a Phase 2 ESA on one of the client's sites. When drilling the first borehole in a reported spill area, she observes the subsoil on the drill stem appears to have hydrocarbon contamination. The contamination appears to extend vertically beyond the planned drill depth of 6.0 meters. Alexi knows the groundwater table is generally shallow in this area, but the budget doesn't include provisions for drilling below 6 meters.

The spill report for this site was submitted to the regulator in 1991 and did not indicate which substances were released. Alexi takes a sample and considers if she should request a lab analyses for hydrocarbons, metals and salts or just hydrocarbons. As tests for metals and salts will add to the costs, she decides to forego those tests and focus on analyzing the concentration of hydrocarbons.

Unable to contact her manager to get advice on the next steps, Alexi decides to allocate the remaining budget to an unplanned borehole in the spill area to determine the horizontal extent of the contamination, instead of drilling deeper to see how deep the hydrocarbon contamination has migrated. After drilling the unplanned borehole, Alexi notes hydrocarbon contamination is likely present at the same depth as at the last borehole. Alexi's manager calls back after the unplanned borehole is completed, and directs her to finish the Phase 2 ESA without further delineation of the spill and limit the lab soil analyses to hydrocarbons as the investigation is probably over budget. Alexi reluctantly complies, hopeful that she can persuade the client to continue the site assessment later this year or that the client will have more money in next year's budget.

1. Are there any ethical issues in the decisions Alexi made while conducting the Phase 2 ESA?
2. Should Alexi talk to her manager about this site if the lab data indicates the hydrocarbon concentrations are noncompliant? If so, what should she say?
3. Which sections, if any, of the Guidelines to the Ethical Responsibilities of Agrologists apply in this situation?

4. Situation: Phase 1 Environmental Site Assessments (ESA)

Sam, a PAg, manages a medium-sized consulting firm that specializes in environmental site assessments for contamination and remediation. Preferring to have control over the site from the initial desktop investigation for spills and releases through to remediation, Sam convinces clients that he cannot rely on a Phase 1 environmental site assessment (ESA) that was signed off by a professional in another company and his staff are the only ones that can do a high quality Phase 1 ESA. Clients may question whether doing 3 or 4 Phase 1 ESAs for one wellsite is useful, but Sam assures them his team does a much more thorough job, which is also why their Phase 1 ESAs are more expensive than their competitors. However, when Sam compares the Phase 1 ESAs done by other companies to the ones his staff prepared, he finds there is little difference in the findings and content. Usually after Sam's clients receive the Phase 1 ESA reports that indicate contamination is likely present at a site, they decide to forgo the Phase 2 ESA until next year or the year after when budgets may be available. Given that consulting companies have short term contracts with clients, by the next year, Sam knows the client may be working with a different consulting firm, unless he can show them it's in their interest to conduct an expensive Phase 2 ESA now.

1. Is Sam's approach to Phase 1 ESAs ethical?
2. What should Sam do regarding the Phase 2 ESA work?
3. Which sections, if any, of the Guidelines to the Ethical Responsibilities of Agrologists apply in this situation?

5. Situation: New fertilizer product

Jan, PAg, works for an international company that develops fertilizer for agronomic crops such as wheat and barley. He meets with landowners to discuss their needs each winter. Lately, Jan has heard of several large farm operations buying a new fertilizer, WorksGreat Nutritional, from a new competitor that has just entered the Canadian market. Landowners have told Jan that WorksGreat Nutritional is half the price of Jan's traditional fertilizer product and that they were assured that it is just as effective. Its aggressive pricing will help the manufacturer gain market share in Canada.

Jan investigates WorksGreat Nutritional to learn about its effectiveness but can't find any scientific research to support the company's claims. He contacts the company and is promised a full package of scientific results from lab and field trials, but Jan never receives it, even after several follow up calls. While investigating the product, Jan also notes there are complaints from a couple of farmers in the US about the product's effectiveness, and there is a threat of lawsuits.

Jan wants to be professional and points out to his customers that there isn't scientific data to support WorksGreat's claims, while his products have several research papers proving their effectiveness. He also tells his customers that there are many landowner complaints about the product in the US, but his customers are focused on WorksGreat's price and Jan can't compete on price. He angrily tells his former customers to "suit yourself, you'll see WorksGreat Nutritional is a poor product and you'll regret not buying my product". Jan's fertilizer sales have fallen significantly, and his boss is unhappy with his sales volume.

Under pressure, Jan goes on his FaceBook account to vent his frustrations with his customers for making such poor choices. He names some customers and makes disparaging comments about them. Jan believes his FB account is private except for a limited number of friends and family who have access, but it turns out one of his named customers can see his FB postings.

1. How should Jan ethically handle his competitor's claims?
2. Should Jan have put his frustrations on FaceBook?
3. Which sections, if any, of the Guidelines to the Ethical Responsibilities of Agrologists apply in this situation?

6. Situation: Alberta's carbon market and feedlot operators

The early days of Alberta's greenhouse gas regulatory market was fraught with unethical players in the carbon offset marketplace. Several aggregators were attempting to bring forward carbon offsets out of the beef sector, using the government approved quantification protocols. Denise, an agrologist consulting in the sustainability field, is aware of the activities of the various project developers and has interacted with them over the years. While working on a beef sustainability pilot for a client, Denise visits a feedlot in central Alberta to discuss the potential of joining the sustainability pilot.

As the meeting with the feedlot operators proceeds, the operators ask Denise if she is aware of the aggregator firm that was working with them in the past. Denise admits she is aware of them and that they were working with several feedlots to generate carbon offsets in Alberta. The feedlot operators then disclose to Denise that the aggregator firm stole their data (with no agreement in place); fabricated their signature and the verifiers' signature (cut and pasted from another feedlot verification report); and proceeded to take the project to a voluntary registry outside of the Alberta offset system. The aggregator firm then serialized the tonnes, and worked with a broker to sell 35,000 tonnes to hotels across the province as part of the hotels' 'green initiatives' programs. Denise said she was unaware of this. The feedlot operators asked for her help and advice on in any avenues they could take to rectify the situation.

Denise agreed to look into it and the feedlot operators sent her a link to the voluntary registry to assist in her assessment. Upon scrutiny, Denise realizes that what they had told her is likely true, when comparing other feedlot verification reports. She was also contacted by someone from the aggregator firm who quit over the situation and went to the RCMP with the allegations. Denise was told by this fellow that the RCMP would not investigate it because of a lack of criminal evidence; this should be taken to the civil courts. She also learned the aggregator firm is now suing its ex-employee, alleging defamation.

Denise consults a lawyer working in the carbon offset field and explains the situation. The lawyer is also aware of this aggregator firm and lays out some options. Denise speaks to the regulators of the carbon offset system at Alberta Environment and Parks and they explain this is out of their jurisdiction since the carbon offsets were sold into the voluntary marketplace. Denise speaks to the Farmer's Advocate office who are investigating a series of related firms established by the principals of this aggregator company. Many farmers have not received promised cheques for the sale of carbon through contractual arrangements with the related companies.

The feedlot operators would like to enlist Denise's services to help them get the monies that are due them.

1. Are there any ethical issues with Denise's role in this scenario?
2. What should Denise do next?
3. Which sections, if any, of the Guidelines to the Ethical Responsibilities of Agrologists apply in this situation?

7. Situation: Omitting important scientific research

Sharon is an agrologist trained in soil science, who is finishing her master's thesis. She is offered employment by an environmental consulting firm, and although she is trying to finish her thesis, she decides to join the firm since the offer was very generous. The firm has been commissioned by the proponents of a new bleached kraft pulp and paper mill to conduct an environmental, social and economic impact assessment (EIA) as part of the regulatory approval process. Although trained in soil science, Sharon finds herself assigned to conduct the chapter on human health. Despite expressing her discomfort, Sharon is told by management to "just compile the chapter and we'll have an M.D. review it and sign off".

Sharon researches the literature on the topic. As the assignment proceeds, Sharon notices sections of the EIA being sent to the mill's proponents who are located in the same office building. Every chapter is carefully reviewed and revised by the mill's proponents and sent back to the consulting staff. This makes Sharon uncomfortable because this is supposed to be an independent assessment.

At one team meeting during the roundtable updates, Sharon explained that the literature on human health impacts was mixed: some studies report a negative affect drinking water quality while others say there is a minimal, insignificant impact. Sharon was told by the EIA Team Lead to ignore the studies that indicate there is a negative impact.

This doesn't sit well with Sharon, and after the meeting, she and a fellow agrologist who is also working on the project share their discomfort with the Team Lead's direction.

When the EIA is submitted to the government for review, the regulator lists over 200 deficiencies in the EIA, leading the project team to hold emergency meetings to determine how to address them. Tensions are high and several of the management team members can be heard shouting behind closed doors. That night, the man leading the air quality chapter has a heart attack and dies, shocking the entire team.

At this stage Sharon is seriously regretting joining the firm.

1. Did Sharon act ethically in this situation?
2. What should Sharon do going forward?
3. Which sections, if any, of the Guidelines to the Ethical Responsibilities of Agrologists apply in this situation?