

PERSPECTIVES FROM THE FIELD

Why We Need a Codified Code of Ethics

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My first exposure to ethics as a consideration in professional conduct came more than 25 years ago. At the time, I was a recent graduate in a fairly new job and had only recently joined the local chapter of the National Association of Environmental Professionals (NAEP). I was educated, but green. What I had in my favor was a good upbringing, a stint as a naval officer, and a copy of the NAEP Code of Ethics.

The question brought before our small group was to determine whether the actions of a consultant had been ethical. It seems that an environmental consultant was standing out in the field with a truck bed full of wetland plants when the United States (US) Army Corps of Engineers showed up. He had been pulling up the plants to remove the vegetative component of the wetland test. Now, as it turned out, this was a couple of rule iterations back, and the field was agricultural, so what the consultant was doing was perfectly legal. The Corps did not regulate plant material, but only flow and volume under dredge and fill regulations. The area was exempt from state rules because of its size and isolated nature. The Corps inspector was a bit irritated, but there was nothing he could do.

As I was struggling with the question of whether this activity was ethical, even if legal, a second confrontation with ethics arose. It seems that the Corps had taken a particular dislike to someone (a different person) and had actually cited them for removing cattails. I had just been through the examination of the consultant remov-

ing plants and was confused by the action of the Corps in citing the owner who removed the cattails. I am not sure exactly why the Corps was upset with the person, but they won the case in court because they were able to show that the cattail roots had residual mud on them and the action was indeed a dredge and fill violation.

One still has to wonder about the consultant in the first case. What he was doing was perfectly legal, and by doing it he was fulfilling his ethical commitment on the business side of ethics. But was there a commitment on the environmental side?

The second situation is reprehensible. In the first, the consultant followed the rule to the letter. In the second, the attorney for the Corps twisted the letter of the law into that which suited his case so that he could record a win. I have never understood ethics associated with litigation and so cannot offer an opinion on that, but can, as a person, state that rules which are twisted and bent to fit a particular situation are, as I said, reprehensible. Although it is true that the attorney may win his case, the precedent has affects that go far beyond that case and far beyond the intent of the rule and the parent legislation.

Since that first set of experiences, I have become rather deeply involved in ethics within the NAEP structure. As a contributor to the NAEP news for several years, I received numerous stories from other professionals as well. As I relate some of them here, some are my experiences and some are from others, but I have removed as much identifying information as possible. Some of these experiences that I relate are also the result of my being the recipient of ill-prepared documents submitted by consultants when I served as a county employee.

The spectrum of unethical conduct runs from minor errors and omissions that may

or may not have been intentional to actions that were nothing less than fraud. The only one I know of that resulted in a criminal investigation involves a person who actually used an aircraft to chase bald eagles away from a nest site with the intent of improving the possibility of obtaining construction permits.

Early in my career, these flagrant violations were much more common than they are today. One reason they are less common is in the reaction that one government agency had to one of the most frequent violators in the area. This person had adopted the position that he would conduct his construction activities, which in this case were in wetlands, without the benefit of a permit. When, or if, he was caught, he would confess and get a permit after the fact. What he saved was the cost of permitting because he often only needed to submit a surveyed as-built plan and perhaps create some wetlands and pay a fine. The design of the mitigation was often included in a consent order, so he did not even need the services of a consulting ecologist or engineer. He also saved the 18 months it takes to get permits and was able to establish a positive cash flow with earlier sales. Fines were meaningless because he simply distributed the fines to the units sold. He was well known and rather not well liked at the agency.

His error was in giving an interview to a local newsmen. The headline read "Fines are just part of doing business." The order was immediately readdressed by the agency, and his \$10,000 fine was revised to \$250,000 with daily additions until the situation was corrected.

Many readers will now be asking, "So what?" and wondering how this relates to professional ethics. Without making a judgment, I can only ask those readers to consider whether they would accept a contract with

a person who had a flagrant history of such an approach to permits.

The previous example was of a client served by environmental professionals. The next set will be examples of situations in which environmental professionals play the lead role. The following is a *set* of examples because it has many variations, none of which are ethical.

Consider the environmental professional who had been hired to conduct monitoring by which a created wetland would be deemed successful or in need of additional adjustments. The permit required that the biologist collect monthly samples and prepare an annual report. It further required that the biologist remove exotic plants. A determination of success would be granted when the site met certain criteria. Success also meant that the need for further monitoring would be terminated. Therein lies the conflict leading to the ethical problems.

The biologist knows that water data that are good will mean his tenure is ended. That biologist, when collecting a water sample for dissolved oxygen analysis or when using a probe, might then accidentally strike the bottom of the station with his collection gear, stirring up anoxic muds. His sample or probe will register lower values. He gets to return next month.

That same biologist may use herbicide application techniques that would be designed to assure that there would be more exotics during his next visit. Weak solutions, improper applications, and incomplete transects are all techniques that I know have been used. I have also been aware of practitioners who casually overspray the herbicide, leading to a deficiency in the required replants. The client is on the hook for the cost of replacement. The biologist gets a bigger check.

As time passes, the site approaches the standard expected age at which success is common. The biologist now knows that if he extends this job further, it will lag notably behind other projects. His reputation for successful sites might suffer, and his client might grow suspicious. And so the technique shifts.

The biologist now will extend the time he takes to collect water samples and will analyze them on the spot or very quickly in the lab. If the data are not in the range of desired dissolved oxygen (or whatever the parameter is), he simply takes another sample. This is repeated until the “correct” data are acquired.

In a similar manner, the biologist monitoring the plants will conduct a treatment using herbicides to kill the exotic plants and then conduct the monitoring the next week. The technique assures that there will be no exotics and that the determination of success will be granted. There have even been cases where replacement plants are installed one day and the monitoring occurs the next. The most flagrant variant on this theme is one case where the plants were installed in their pots, the monitoring conducted, the agency inspection conducted, and the plants recovered.

When the same cadre of people are working on a lump-sum contract, these same techniques can be used to achieve success in record time, turning the expenses of the outer years of monitoring into profit.

Let us now turn to quirks in the permitting process itself. This technique described next was used on numerous occasions within my experience and, when discovered, was not properly addressed. The technique preys upon two behaviors common in regulatory agencies: The first is that the staff do not communicate well with one another. The second is that the permitting process is front loaded by effort such that applications get a lot of attention, whereas completion reports are often simply filed.

As a tangential aside, I can tell you that, on more than one occasion, I have filed monitoring reports that conclude and document complete failure in a mitigation plan (by others) and have received a determination of success because it was at the end of the standard monitoring period. I questioned an acquaintance about this and was told the reports were simply not read.

Back to the story. The ethical violation taking advantage of poor communication and front loading occurred when the project

team decided to submit different sets of plans to different agencies. While I, as much as anyone else, bemoans the need to obtain four permits for one job, the solution by this team is unacceptable. The team submitted plans to the city, county, state, and federal agencies for four different designs. Each was prepared to highlight the agency rule, but each varied from the others in significant ways. Permits were granted, and the construction completed. The team then submitted the as-built survey replete with *field modifications* that in most cases would not have resulted in a permit denial but did not meet the rule either. The trick was to not deviate to the point that the agency treated it as a violation. The idea was to play upon the fact that the agency had no time to look at as-builts because it was too busy looking at the next application. This worked well until the project team submitted two different as-builts to two different agencies, and the two inspectors happened to be on site on the same day. After comparing plans, the project team was exposed.

Those in private practice are not the only group that has exhibited tendencies to break rules of ethics. In the following example, the rules are different for different people. I was called in on a case that involved a rather long history of interactions with the regulatory agency. At issue was the location of a wetland boundary. The client gave me a signed and sealed survey of a line that had been set three years prior to my arrival on the team. I asked that stakes be set in the field based on the survey so that a proper location could be determined.

My first clue that something was wrong was when I arrived at the site and saw a pin in the middle of the driveway. Challenging the surveyor, I was assured that this was the correct location. Running the line, I noted that sometimes the line would wander into the wetland as I would have judged it and then back into the upland further down. I began to suspect that there were problems beyond the jurisdictional asphalt.

Pursuing the source of the line, I learned that it had been set by a government employee as a result of a violation. The Corps of Engineers has an exact process for set-

ting wetland lines that involves digging and testing and identifying plants and, just as importantly, doing all of this on a transect and recording it all on data sheets. Apparently, though, the method applies only to the consulting biologist and not the staff biologist. As I pursued my inquiry on this line, I asked for the data sheets. I was stonewalled and had to file a formal request. To my dismay, there were no data sheets. The line was set the old-fashioned way in which the biologist stuck a flag in the ground and said, "Thar 'tis," and moved on. In this case, the agent went a bit further and collected global positioning system (GPS) data. Failing to note the accuracy indicator on the unit, the agent relied on the claim on the GPS's package that it collected data at submeter accuracy. Failing to read the manual, the agent also neglected to note the requirement for a surveyed base station to obtain that accuracy. So he went to the office and included the data in the notice of violation.

The ethical violation in the foregoing story goes well beyond the misplaced line. The arrogance of the agent was such that he presumed the rules of data collection and proper survey simply did not apply to him. The repercussions of all this fell on the client, who had to go through all the hassle of having the situation corrected. This situation, as well as the examples of ethical violations during monitoring, are the most heinous because they break the trust between the client and consultant or between the agent and the citizen he is sworn to serve. That they cause monetary losses only serves to worsen the breach.

The previous examples have been of rather blatant violations and are easily discerned. The next set will shed some light on the much more subdued challenges we face. Unfortunately, these all seem to occur within the ranks of the government employee.

Imagine. Jack, the reviewer, walks into his supervisor Ralph's office down at the agency and plops a set of plans on his desk, saying, "You won't believe this." Jack continues, "We gotta stop this and I may need some help." Ralph asks what the applicant wants to do. Jack says, "Well I only looked at the data table so far, but there are impacts to seagrass that we can't tolerate."

Jack had not read the application but noted only that the box was checked for impacts to seagrass. Ralph quickly fell in line and backed up his reviewer. The ethical violation occurs in the prejudice exposed by the decision to kill the project before reading the application. As scientists and professionals, we are taught to make decisions based on facts, not presumptions. In my own role as a supervisor, I have had my run-ins with my own version of Jack. One case in particular stands out in my memory in which we reviewed the plans, which were to be approved as being consistent with the county code, if not Jack's inclinations. Jack actually refused to sign the approval memorandum.

From my later vantage point as the representative of an applicant, I can relate that I have sat in a room with eight people from three agencies listening to why my project was not going to be approved. Of the eight, one supported the approval. After a bit of discussion, my suspicions were aroused, so I asked straight out how many people had actually read the application. The answer was one, and that person was the one recommending approval.

These events are not to be confused with the actions of the agent who intends to deny a project out of a deficiency in his or her depth of understanding of the topic at hand. To highlight the difference, consider the situation in which the applicant is told that the permit will be denied because there is too much copper in the water and sediment. The area was being designated as restricted because of contamination. The regulatory agent needed the applicant to present data showing otherwise. In this case, a scientifically established method referenced in the rule was used to demonstrate that the copper was higher than what the agency would have desired, but was within safety limits and was demonstrated to be there naturally instead of as a result of a polluting event. The agent in this case acted ethically because it is his job to assure that the file contains the data to support the permit. Even though he himself did not have the expertise to evaluate the situation, he placed it on the table with the applicant and had the results reviewed by others who did have the expertise.

In stark contrast to the previous story, while I sat in a room with a regulatory agent as we discussed a marina for a condominium, the agent was placing mitigation requirements on the project when the rule clearly indicated none were necessary. When questioned about this, the answer was that these rich developers can afford it. The blatant arrogance and jealousy of the statement and the complete misunderstanding that the cost is passed on to the residents were stunning.

I could tell many more such stories. I suspect that these may well be sufficient but want to add a story confirming that ethical violations are not recent and not found solely in the private sector.

These events occurred during the formative years of the national environmental movement and predate the formation of the Environmental Protection Agency.

Most of us have heard the story of how the chemical that saved much of the world from Malaria and earned a Nobel Prize for the inventor was later learned to cause thin eggshells in bald eagles. This chemical, DDT, had been the poster chemical for environmental activism for many years and, when the spotlight faded, DDE replaced it as an endocrine mimic. While all that may well be valid cause for concern, the first studies were apparently "cooked" to give the desired result. One of the team of scientists conducting the original study was Joel Bitman, who later learned that the birds in the first study were fed a calcium-deficient (0.56% of normal) diet, and it was the diet that led to the thin eggshells. The original study did not use eagles but used quail as a proxy organism. He replicated the study by using proper diet and the same proxy bird (Cecil, Bitman, and Harris, 1971). The conclusion was that DDT did not cause thinning of eggshells. While this may not exonerate DDT and DDE of all their effects, the popular view remains that banning DDT saved the bald eagle, even though all of this brought about by unethical science.

Some may ask, "So what? DDT is still banned." True, but of all the money and effort spent on research, might it not have

been better directed by original work that had been done properly?

The latter is precisely why we need ethics. Doing things right is better than doing things over.

Reference

Cecil, H.C., J. Bitman, and S.J. Harris. 1971. No Effects on Eggshells, If Adequate Calcium Is in DDT Diet. *Poultry Science* 50:656–659.

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