Sustainable Development – Threatened Species

Case No. 07-6

Facts:

Engineer A is a principal in an environmental engineering firm and is requested by a developer client to prepare an analysis of a piece of property adjacent to a wetlands area for potential development as a residential condominium. During the firm's analysis, one of the engineering firm's biologists reports to Engineer A that in his opinion, the condominium project could threaten a bird species that inhabits the adjacent protected wetlands area. The bird species in not an "endangered species," but it is considered a "threatened species" by federal and state environmental regulators.

In subsequent discussions with the developer client, Engineer A verbally mentions the concern, but Engineer A does not include the information in a written report that will be submitted to a public authority that is considering the developer's proposal.

Question:

Was it ethical for Engineer A not to include the information about the threat to the bird species in a written report that will be submitted to a public authority that is considering the developer's proposal?

References:

Section I.3.	-	*NSPE Code of Ethics:*	*Engineers, in the fulfillment of their professional duties, shall issue public statements only in an objective and truthful manner.*
Section I.5.	-	*NSPE Code of Ethics:*	*Engineers, in the fulfillment of their professional duties, shall avoid deceptive acts.*
Section II.3.a.	-	*NSPE Code of Ethics:*	*Engineers shall be objective and truthful in professional reports, statements, or testimony. They shall include all relevant and pertinent information in such reports, statements, or testimony, which should bear the date indicating when it was current.*
Section III.2.d.	-	*NSPE Code of Ethics:*	*Engineers are encouraged to adhere to the principles of sustainable development[1] in order to protect the environment for future generations. (**Footnote 1**: "Sustainable development" is the challenge of meeting human needs for natural resources, industrial products, energy, food, transportation, shelter, and effective waste management while conserving and protecting environmental quality and the natural resource base essential for future development).*
Section III.4.	-	*NSPE Code of Ethics:*	*Engineers shall not disclose, without consent, confidential information concerning the business affairs or technical processes of any present or former client or employer, or public body on which they serve.*

Discussion:

In January 2006, the NSPE Board of Directors approved a change to the NSPE Code of Ethics to add Section III.2.d. to the NSPE Code. The new section stated that "engineers shall strive to adhere to the principles of sustainable development in order to protect the

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environment for future generations." A footnote (Footnote 1) was also included at the end of the NSPE Code of Ethics. The footnote further clarified and defined the term "sustainable development." It stated that "sustainable development" is "the challenge of meeting human needs for natural resources, industrial products, energy, food, transportation, shelter, and effective waste management while conserving and protecting environmental quality and the natural resources base essential for future development." Thereafter, in July 2007, the NSPE House of Delegates voted to modify the language in NSPE Code Section III.2.d. to state that "engineers are encouraged to adhere to the principles of sustainable development in order to protect the environment for future generations. With this added language a further clarification, the NSPE Board of Ethical Review will review this language as a matter of first impression and in the context of other language in the NSPE Code and earlier NSPE Board of Ethical Review Opinions.

Not unlike earlier NSPE Board of Ethical Review cases of this type, the facts in this case present a situation that often raises very difficult issues for engineers in dealing with clients. Engineering practice sometimes places the engineer in the position where the interests of a client and the interests of the public are in open and serious conflict.

As this Board has noted on several occasions, engineers play an essential role in society by taking steps and actions to see that products, systems, facilities, structures, and the land surrounding them are reasonably safe. Sometimes engineers are placed in situations where they must balance the extent of their obligations to their employer or client with their obligations to protect the public health and safety. NSPE Code Section III.2.d. places some additional responsibilities on engineers for the protection of environment.

At the same time, as noted in BER Case No. 89-7, there are various rationales for the nondisclosure language contained in NSPE Code Section III.4.. Engineers, in the performance of their professional services, act as "agents" or "trustees" to their clients. They and the members of their firms are privy to a great deal of information and background concerning the business affairs of their client. The disclosure of confidential information could be quite detrimental to the interests of their client and, therefore, engineers as "agents" or "trustees" are expected to maintain the confidential nature of the information revealed to them in the course of rendering their professional services.

BER Case No. 97-13 appears to present this ethical dilemma starkly. There, a public agency retained the services of VWX Architects and Engineers to perform a major scheduled overhaul of a bridge. VWX Architects and Engineers retained the services of Engineer A, a civil engineer, as its subconsultant to perform bridge inspection services on the bridge. Engineer A's scope of work was solely to identify any pavement damage on the bridge and report the damage to VWX for further review and repair. Three months prior to the beginning of the scheduled overhaul of the bridge, while traveling

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across the bridge, Police Officer B lost control of his patrol car. The vehicle crashed into the bridge wall. The wall failed to restrain the vehicle, which fell to the river below, killing Police Officer B. While conducting the bridge inspection, and although not part of the scope of services for which he was retained, Engineer A noticed an apparent preexisting defective condition in the wall close to where the accident involving Police Officer B occurred. Engineer A surmised that the defective condition may have been a contributing factor in the wall failure and noted this in his engineering notes. Engineer A verbally reported this information to his client, who then verbally reported the information to the public agency. The public agency contacted VWX Architects and Engineers, who then contacted Engineer A and asked Engineer A not to include this additional information in his final report since it was not part of his scope of work. Engineer A stated that he would retain the information for his engineering notes but not include it in the final report, as requested. Engineer A did not report this information to any other public agency or authority.

In deciding that (1) it was ethical for Engineer A to retain the information in his engineering notes but not include it in the final written report as requested and (2) it was ethical for Engineer A not to report this information to any other public agency or authority as long as corrective action was taken by the public agency within a relatively short period of time, the Board noted that Engineer A acted reasonably under the circumstances by properly balancing the obligation of the engineer to be faithful to the client and not to disclose what might be considered by the client to be confidential information concerning the business affairs of a client without that client's consent and the obligation of the engineer to hold paramount the public health and safety.

The Board said this because there was nothing under the facts to indicate anything more than Engineer A's general surmise and speculation about the cause of the structural failure of the wall. Engineer A's observation appeared to be based upon a visual inspection without anything more, and the facts did not indicate that Engineer A had expertise in structural engineering. While it might have been appropriate for Engineer A to note such information in his field notes, to place this information in a final report would not be responsible and could unnecessarily inflame the situation. However, under no circumstance would it be appropriate for Engineer A to alter his field notes.

Also, while it might be appropriate for Engineer A to verbally report this information to Engineer A's client and for the client to report this information to the public agency, it is clear that Engineer A was retained to perform a specific task for which he was presumably competent. Clearly the prime consultant, who has overall responsibility for the project, was in a far better position than Engineer A to understand the interrelationships between various elements of the projects, including the history of previous work performed on the bridge, prior consultants, contractors, etc., in order to make an informed evaluation.

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Therefore, the Board concluded that Engineer A did the appropriate thing in coming forward to his client with the information and also by documenting the information for possible future reference as appropriate. Under the circumstances, the Board concluded that it would have been improper for Engineer A to include reference to the information in his final report, particularly since it would have been based upon mere speculation and not careful testing or evaluation by a competent individual or firm. At the same time, the Board was of the opinion that Engineer A had an obligation to follow through to see that correct follow-up action was taken by the public agency. Finally, the Board concluded that for Engineer A to have reported this information to a public authority under the circumstances as outlined in the facts, before determining whether corrective action is taken, would have been an overreaction and could easily have risked jeopardizing the professional reputations of his client and the public agency.

More recently in BER Case No. 04-8, Engineer A, an environmental engineer, performed wetland delineation services on the client's wetland site. A few months after Engineer A completed the services, he drove by his client's property and noticed that the client had installed a substantial amount of fill material on more than half an acre across a portion of the wetlands without any permits, variances, or permissions. The installation of the fill material was a substantial violation of the federal and state laws and regulations. In its decision, the Board set forth an appropriate course of action for Engineer A concluding that Engineer A should contact the client and inquire about the actions the client had taken and point out the actions were a violation of the law and that steps needed to be taken to remedy the violation or obtain a variance from the proper authorities. In this connection, the engineer should advise that the remedial actions should be in full compliance with all applicable environmental laws and regulations, which may include review by a licensed engineer. If appropriate steps were not taken by the client, Engineer A had an obligation to bring the matter to the attention of the appropriate authorities.

It should be noted that these cases were decided prior to the addition of the language contained in NSPE Code Section III.2.d. quoted above. Moreover, as the Board noted in its earlier analysis of BER Case Nos. 89-7 and 97-13, in Case No. 89-7, the facts revealed that the client had confided in the engineer and may have relied upon the engineer to maintain the information in confidence. In addition, the engineer in BER Case No. 89-7 did not have any particular expertise in the technical areas (mechanical/electrical) involved in the matter at issue. Taken together, it would be reasonable for an engineer under those circumstances to act in a deliberate and cautious manner before taking any action. Similarly, in BER Case No. 97-13, the engineer's evaluation was based upon general surmise and speculation about the cause of the structural failure of the wall, based entirely upon a visual inspection without anything more. In addition, as in BER Case No. 89-7, there was nothing noted in the facts to indicate that Engineer A had expertise in the specific discipline involved—

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structural engineering. Again, BER Case No. 97-13 indicates some basis for the engineer to be more reflective and careful before making statements or taking actions that could jeopardize the interests of others.

Applying this analysis to the present case and in light of the NSPE Code of Ethics language contained in Section III.2.d., the Board believes that Engineer A's obligations are clear. There does not appear to be any affirmative action on the part of the client to treat the information as confidential, since it appears that the client was not even aware of the situation prior to it being brought to the client's attention and the client never directly requested that Engineer A maintain it as confidential. Under the facts, as an environmental engineer with consultation by an apparently qualified biologist, it appears that Engineer A has technical competence concerning the matter in question. Further, unlike BER Case No. 97-13, there is nothing in the facts that the conclusions reached are based upon surmise or speculation. While further study may be warranted, it appears that the facts are relatively unambiguous and obvious.

Moreover, under NSPE Code Section II.3.a., engineers have an obligation to be objective and truthful in professional reports, statements, or testimony and include all relevant and pertinent information in such reports. It would be reasonable to assume that the public authority approving the development would be interested in this information. There does not appear to be any indication of an effort on the part of the client to treat the information as confidential. Engineer A, therefore, had an obligation to include it in the written report and advise the client of its inclusion.

Conclusion:
It was unethical for Engineer A to not include the information about the threat to the bird species in a written report that will be submitted to a public authority that is considering the developer's proposal. Engineer A should have included it in the written report and advised the client of its inclusion.

Board of Ethical Review:
Mark H. Dubbin, P.E., NSPE
Robert C. Gibson, P.E., F.NSPE
James D. Lesikar II, Ph.D., P.E., F.NSPE
Monte L. Phillips, Ph.D., P.E., F.NSPE
Michael L. Shirley, P.E., F.NSPE
Eric H. Yamashige, P.E., L.S., F.NSPE
Louis L. Guy Jr., P.E., F.NSPE, Chair

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