WETLANDS "IMAGE MODELS"

by Joe Cascio

I'd like to present to you an attitude that many active environmentalists and agency staffs will encounter in their work. I wish to demonstrate this attitude in the hope that you will get your feathers up now, rather than later, when you hear it again at a public hearing or at an informal review or collaborative session.

I will quote from the beginning of a presentation by Erwin N. Potter and Associates, Environmental Systems Planning, Ltd., of Connecticut, at the recent American Society of Landscape Architects (ASLA) convention in Baltimore. I changed a few words (in parentheses) and omitted a few ( . . . ) in an effort to clarify some points.

"Wetlands which are in contact with major roads, dense development, and other (new construction) invite abuse.

"Fortunately, with . . . protection from state and local laws, wetlands are usually (protected) against filling, draining, and other detrimental activities caused by development and construction. However, incremental abuse from the general public's lack of respect towards wetlands is not mitigated. Indeed, public values are directly related to the way the public treats a landscape.

"As for example, people are much more likely to litter a roadside wetland than a highly valued landscape such as a well-maintained lawn. Landscapes which are well-defined and cared for are less susceptible to abuse by the public. Hence, by maintaining a wetland as a valued element in the landscape, it will be revered more by the general public and in turn it will be less abused.

"As image-makers of the landscape, landscape architects have an opportunity and a responsibility to employ their realistic understanding and sensitivity of the natural environment to create 'image models' of wetlands. Image models may be regarded as aesthetically defined landscapes which are either contrived by humans, such as the English landscape gardens, or occur naturally, such as a climax forest. An image model, or vision of a wetlands, may be a wetland garden.

"Wetland garden should enhance the wetland's functional and aesthetic values, while also satisfying wetland legislation and the property owner's right to develop his/her land. Hopefully, by creating wetland image models, landscape architects may take advantage of the public's social response to aesthetically defined landscapes to the benefit of the wetlands. The following report highlights the functional aspects of wetlands and suggests concepts for revitalizing abused wetlands to create wetland gardens."

To an ardent environmentalist, this may seem unduly intrusive on natural appearance. I suggest that you should reserve judgment on such an attitude, when you encounter it, until actual plans or specific proposals are presented. Landscape architects have to market their services, too. When they see a potential market area, they want to develop what they feel is a sound argument for their services to be used.

There is another explanation for the "wetland garden" attitude, that I encountered back around 1965, when I asked a successful landscape architect why he designed formal placement of trees in rural natural areas. He replied, "There needs to be clear evidence of what I've done, so the client can take pride in what I've done for him and see what he got for his money. If you mimic nature, blend with the existing edge of the woods, soften the edge of a clearing, and so forth, it becomes unclear where nature stopped and you began, and if you are very successful, it doesn't look as if you've been there at all. How are you going to get the next job if you can't show a client what you specifically designed? You'll put yourself out of business if you continue to arrange natural materials in natural patterns."

His comment was probably true, and his attitude is shared by many successful firms. Some of us, however, judge success by the absence of evidence of our intervention. That may be why you don't find a financially successful design firm noted for this natural approach.

To return to Connecticut designer Erwin Potter. In other material made available, he described a project in New York State where they had two wetland ponds acting as stormwater retention basins for run-off from a shopping center. In collaboration with the civil engineer, Bibbo Associates, they left one pond and its 100-foot buffer undisturbed; they brought the main entry road across the other pond, enlarged it, deepened it, regraded the slopes, planted it with native and ornamental herbaceous plants as a wetland garden. The exit road ran through the 100-foot buffer.

It sounds like a great solution — a dramatic entrance across a nine-acre lake and an exit with a different view of the same resource — and not having a big, engineered, grass-lined reservoir occupying the low corner of the site. I suspect there are plenty of native woody plants up in the 100-foot buffer, and not on the slopes where they would interfere with stormwater engineering.

In describing the wetland garden, he 'enhances the wetlands' productivity and longevity' by transplanting preserved, select wetland material from the site and introducing different wetland species to "increase the diversity of vegetation and associated wildlife, and increase stability of the wetland's nutrient level and water level, making the ecosystem less sensitive to outside influence." As a result, he projects that the wetlands will function more efficiently in the environment.

In order to quell the erosive force of incoming stormwater from the developed areas of the shopping center, Bibbo Associates designed what they call a "level spreader below.

Bibbo Associates has provided a detail of spreader below.
Before flowing through pipes to the pond, the stormwater passes through oversized catch basins with sumps to collect debris and sediment for periodic removal by vacuum truck. It is felt that the placement of the level spreaders and catch basins between the source and the wetland garden will maintain the quality of water flowing through the existing undisturbed pond.

Based on what Potter said in introducing his presentation (the “attitude” I warned of), I was concerned about his design. But based on the description of the design, I began to realize that they were considerate of a natural appearance.

In conclusion, environmentalists should not judge a landscape design firm’s prowess in environmental or ecological matters by their rhetoric. Wait until you see their actual proposal or specific site plans; you may be pleased by what you see. If you find their solutions are shortsighted or flawed, try to work with them to provide an ecologically sound solution, respecting natural laws for far-sighted consequences. If you can assist the designers, you should be rewarded by the designer, by his client, but most of all by the enhanced outcome.

WETLANDS

by Susan Herrington

“Wetlands are parcels and which have water at or near a surface. Wetlands often have unique soils that differ from adjacent higher grounds, and vegetation.”

Introduction

Eighty percent of the freshwater wetlands in our country have been drained since the 18th century. The draining and filling of these wetlands has been performed mainly to create more farmland and buildable space. These statistics are alarming because wetlands are bound up in the “health” of our environment. Specifically wetlands perform functions which determine the quality and quantity of our drinking water. When the wetlands are filled or drained these functions cease to exist.

Approximately forty to fifty percent of the remaining wetlands in our country are overlying productive, potable water supplies. These groundwater supplies are a vital provider of water. Wetlands associated with groundwater aquifers play cycle as a groundwater aquifer recharge and water purifier.

Other functions which wetlands perform in our environment are as follows:

Functions of Wetlands

1. Flood and stormwater control: During periods of heavy rains and/or excessive run-off, wetlands act like a sponge, absorbing and retaining water, and eventually releasing it in a slow, steady fashion through streams and/or groundwater aquifers.

2. Wildlife and vegetative habitat: The dense variety of trees, grasses, and shrubs coupled with the presence of water make wetlands an excellent eating, living, and/or hiding place for an array of birds, mammals, reptiles, and fish.

3. Water purifier: Wetlands act like kidneys of the landscape because they purify the water which flows through them.

4. Recreation: Wetlands provide a place for hunting, fishing, boating, bird watching, picture taking, nature walking, and a variety of other activities.

5. Open space and aesthetic appreciation: Wetlands provide visual variety in both the urban and rural environment. Protected wetlands in the urban setting...