AN UGLY GHOST OF ENVIRONMENTAL PRESENT

The true purpose of the New Year's holiday is to contemplate the flow of time through our lives.

Charles Dickens captured this theme in "A Christmas Carol," arguably the most beloved story about the winter solstice season. Though the pivotal day in the story is Christmas Eve, the pivotal idea parallels what many people do on New Year's Eve: reflect back on the previous year, examine the present situation, envision a future based on present trends, and, if necessary, correct that future by reframing our thoughts and life patterns.

The protagonist of Dickens' story is a miserly, antisocial curmudgeon named Ebenezer Scrooge. In three vivid dreams, he witnesses the ghosts of Christmas past, present and future. Not liking what he sees in his future, Scrooge resolves to change his ways.

Re-reading this story prompted me to reflect on the ghosts of our environmental past, present and future, and to select an example to share. My true story is set in modern-day Chicago. There, the ghost of the environmental past reveals the arrogance and indifference which we've shown regarding the Mississippi River system, now blighted and diked almost beyond recognition.

There, the ghost of the environmental present reveals five federal agencies, silently spending your tax dollars to correct an invasive species problem, the Asian carp. There, the ghost of the environmental future is a looming economic and ecological disaster for the Great Lakes.

Two species of Asian carp were imported in the 1970s to boost production on catfish farms. They escaped during Mississippi River flooding in the early 1990s. Since then they've expanded their ranges northward, locally dominating native ecosystems.

To prevent them from reaching the Great Lakes, federal, state, international and private agencies are building a permanent electric fish barrier at the watershed divide, determined to electrocute any fish attempting to run the gantlet.

The EPA describes the carp as "a significant threat to the Great Lakes because they are large, extremely prolific, and consume vast amounts of food. They can weigh up to 100 pounds, and can grow to a length of more than four feet. They are well-suited to the climate of the Great Lakes region."

Except for the weight limit, that description fits another vertebrate species that invaded in the opposite direction from the southwestern shore of Lake Michigan.

"There, in 1634, an intrepid and misguided explorer from Normandy named Jean Nicollet de Belleborne stepped out of a canoe fully prepared to greet the mandarins of China" (the quote is from my recent book "Beyond Walden"). Nicollet missed his mark by half a continent and a very wide ocean. And, no doubt, some members of the local Winnebago tribe saw him as an invasive threat.

Later 17th-century explorers - Jacque Marquette, Louis Joliet and Louis Hennepin - crossed the divide between the Great Lakes and Mississippi watersheds, named the Louisiana Territory and set the stage for Chicago's growth. The consequences of that east-west invasion are now being realized, one mistake at a time.

The pathway being used by the carp is an artificial canal created to drain wastewater from intensely urbanized Chicago, and to serve commercial shipping. The permanent commitment of electricity to
kill fish will be generated by non-renewable sources. The floods that released the fish were exacerbated, if not caused, by a misguided system of engineered levees. And the carp were imported with government approval.

Scrooge got his second chance. We can have ours, both in the local case of the carp gantlet and countless other environmental blunders. But it will require a new cohort of young natural scientists to fix out mistakes, an economy where the externalization of costs is transparent, a government less prone to hard engineering, and a democracy that has learned its proper place in nature.

Happy New Year.