

The Big Fix

APCC & others seek overhaul of flawed state land use laws

by Don Keeran

For the past two years, APCC has participated in the Zoning Reform Working Group, a committee of professional planners, land use attorneys, government officials and environmentalists from across the state who are advocating that Massachusetts' antiquated zoning and land use statutes be updated.

After identifying aspects of state law that consistently impede the ability of communities in Massachusetts to manage growth, the working group drafted 16 amendments to the state's Zoning Act, Subdivision Control Law and other state statutes. Those amendments were recently introduced in the state legislature for consideration in the 2003 session.

APCC recognizes that state and local land use laws play a pivotal role in determining how Cape Cod communities are able to respond to many critical issues, including open space and wetland protection, the health of our coastal embayments, affordable housing and the preservation of community character.

Unfortunately, Massachusetts has the unenviable reputation of possessing some of the worst land use laws in the nation. Municipal officials, environmentalists and community preservationists are continually frustrated by their inability to effectively address growth issues due to the limitations imposed by existing state laws.



A textbook example of "ANR" lots.

Current state law allows developers to subdivide property along existing roads without being subject to local subdivision review – one of many sprawl-friendly laws that APCC is working to change.

On Cape Cod, the effect on towns from years of attempting to manage growth under the restrictions of state law is apparent. Sprawl has left its mark in every community. Often, local officials can only stand by and watch as uncontrolled development threatens natural resources and community character, and outpaces a town's ability to provide adequate infrastructure.

Although the working group drafted amendments addressing a broad spectrum of Massachusetts land use law, the following three issue areas are seen by many as foremost in influencing how a community grows, and therefore, are in greatest need of reform:

Approval Not Required (ANR) Plans. Massachusetts is the only state that allows the unlimited creation or division of building lots without first

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It's time for Cape Cod to look beyond Title V

Lately, it's almost impossible to read a newspaper without some mention of failing infrastructure. From across the country come tales of crumbling bridges, vehicle-swollen highways, and leaky water mains.

On Cape Cod, the kind of infrastructure we notice most involves transportation. The burgeoning population has put pressure on our roadways; inadequate public transportation exacerbates the problem. Traffic is highly visible, and vexing.

Much less visible, but more damaging by far,

is the lack of adequate wastewater infrastructure. Although there have been hundreds of discussions about wastewater over the years, the same questions crop up over and over, underscoring the complexity and confusion of this problem!

There are now some encouraging developments about wastewater treatment and management; thus, it is timely to review the issue and try to sort out the numerous misunderstandings.

Historically, on-site wastewater treatment (meaning a wastewater treatment and disposal system for each individual building, such as a septic tank and leaching field, or a cesspool in older homes) was considered a temporary solution in the U.S. When density increased, a sewer line was brought through the neighborhood. Until the early 1980s, central treatment was paid for largely by the federal government, which picked up 75–90 % of the cost of sewage treatment plants and sewer lines. Since that time, the burden of central wastewater treatment has fallen mainly on the individual homeowner. On Cape Cod, only three towns have central treatment, and those systems treat very small areas within each town. Eighty-eight percent of homes on Cape Cod remain connected to on-site septic systems.

According to build-out calculations, an additional 37,000 homes could be built under current zoning, adding to our current year-round population of 232,200. As Cape Cod's population continues to increase, we can no longer safely rely on traditional on-site septic systems. On-site septic systems can cause human health and ecosystem health problems. Even Title V systems do not make our drinking water supply safe for infants, nor our coastal waters a viable environment for scallops, flounder, and other inhabitants (see inset).

If Title V systems are not the answer, what does the future hold?

New wastewater infrastructure on Cape Cod will not include large treatment plants and sewers. These are very costly and displace great volumes of water, which would alter the water table, impacting drinking water supplies as well as pond levels, wetlands, and vernal pools.

The state now permits advanced denitrifying wastewater systems, which as their name suggests,



**NOTES FROM
MAGGIE GEIST,**
Executive Director

Title V Septic Systems: Facts and Fallacies

FALLACY: Title V septic systems protect coastal water quality.

FACT: Title V systems were not designed to remove nitrogen. When too much nitrogen enters our estuaries it causes an overgrowth of opportunistic algae and a decline in valuable fish and shellfish. Many coastal bays are already severely degraded due to an over supply of nitrogen.

FALLACY: Title V septic systems make drinking water supplies safe.

FACT: Title V septic systems were designed to remove pathogens, but if a septic system fails, pathogens can enter the drinking water supply and cause human illness. Pathogens in surface waters from failed systems can also lead to shellfish bed and beach closures. Since Title V systems do not remove nitrogen, they are also a source of nitrate-nitrogen, which can cause methoglobinemia (blue baby syndrome).

FALLACY: I don't live on the water, so my septic system doesn't contribute to nitrogen problems in coastal waters.

FACT: You don't have to live near the water to contribute to the nitrogen load on an estuary. Watersheds feeding our coastal embayments can extend miles inland. Because groundwater within the watershed travels 1–3 feet per day on Cape Cod, nitrogen traveling in groundwater from many houses has yet to reach the coast.

FALLACY: I do my share to protect the environment by regularly pumping my septic system.

FACT: Pumping a septic system does not remove much nitrogen. Most of the nitrogen is in the effluent, not the sludge.

remove more nitrogen. These systems will play a role in the future, but there are three problems associated with their use in single-family homes. First, they don't always remove enough nitrogen to be worth the added cost. Second, these systems have moving parts and must be maintained regularly. Third, these systems cannot be used for seasonal homes, as it takes time for the bacteria upon which the system depends to grow to sufficient numbers.

As opposed to single-family installations, advanced denitrifying systems that treat wastewater from many homes in a subdivision or neighborhood do a very good job of removing nitrogen, and also eliminate the problem of seasonal use. Wastewater management on Cape Cod will certainly involve use of these small neighborhood or cluster treatment plants.

These systems may be part of wastewater management districts. In such a district, a combination of on-site, neighborhood and small central treatment plants may be designed so that effluent from all of the systems added together does not reach a predetermined maximum load of nitrogen-containing compounds that would impair water quality.

Currently, there are three exciting efforts underway that will advance the management of wastewater on Cape Cod.

The Estuaries Project is a multi-million dollar research and monitoring program to help determine what nitrogen levels in embayments will not cause their impairment. Cape embayments are among the first in the state to be targeted for assessment through this project.

The Cape Cod Commission and Barnstable County Health Department are working to develop a regional wastewater management strategy that includes wastewater facility planning in Cape towns and development of a model wastewater management district. The Commission is also working on a Regional Infrastructure Facilities project to identify infrastructure needs for the next 20 years.

APCC, on behalf of the Business Roundtable, has received a grant and hired consultants to evaluate what our options are to finance needed wastewater infrastructure on Cape Cod. We hope to have a document outlining our options in early spring of 2003.

In the past, uncertain science, inadequate technology, management questions, and very high costs have precluded meaningful attempts to address the lack of adequate wastewater infrastructure. With these three complementary initiatives, Cape Cod can begin to make progress toward a solution to the enormously challenging problem of protecting our water quality.

“There are three exciting efforts underway that will advance the management of wastewater on Cape Cod.”

Tara Nye joins APCC

APCC welcomes Tara Nye, who has joined the organization as Staff Biologist.

Tara's strong science background will be of great benefit to APCC as we evaluate risks to natural resources from development, work to preserve critically important open space parcels, and educate the public and policy makers about threats to water resources.

Although coming most recently from North Carolina, Tara is quite familiar with Cape Cod and the region's environmental issues. From 1998 to 2000, she was the Water Quality Monitoring Coordinator at the Waquoit Bay National Estuarine Research Reserve in Falmouth. Her duties there consisted of assisting local citizen groups with developing a water monitoring program by writing quality assurance

project plans, designing a sampling regime, and training volunteers in the proper sampling technique, standard operating protocols and data management.

Prior to joining APCC, Tara worked as a biologist for the North Carolina National Estuarine Research Reserve in Wilmington, NC. There, her research focused on habitat mapping and fish feeding preferences. She was also responsible for the water quality monitoring and weather monitoring at North Carolina Reserve, which is part of a system wide monitoring program within the National Estuarine Research Reserves.



Tara Nye, APCC Staff Biologist

The Big Fix

Continued from cover

meeting a town's standard subdivision review requirements, as long as the lots run along an existing road. The normal local review board process is not necessary for the lot divisions – hence the name “approval not required.” Under current state law, communities have very limited power to deny ANRs, even if the lots are located on roads that fail to meet municipal standards. ANRs are a major contributor to sprawl in our towns, and have become one of the prevailing methods of development that has shaped the look of Massachusetts communities.

The amendment proposed by the Zoning Reform Working Group eliminates the exemption given to ANRs, and defines all land divided into separate lots as “subdivisions.” If passed, this amendment would require that development along existing roadways be held to the same standards of review as any other subdivision.

Zoning Freezes. In Massachusetts, a developer can freeze, or “grandfather,” existing local zoning on a particular property for eight years, merely by submitting a preliminary subdivision plan. This freeze on zoning shields the developer's plans as well as the land itself from subsequent changes to the town's zoning laws. Even after a proposed zoning change has been announced by the town, and all the way up to the point when the proposed zoning is voted upon at town meeting, the developer still has the ability to file a plan and gain grandfathering rights.

Efforts by towns to improve land use laws and enact growth management strategies are often defeated as a consequence of this state statute. Proposals to make zoning improvements are too many times greeted by a flood of building plans submitted by developers for the purpose of locking in existing zoning laws before the proposed zoning changes are enacted. The result is the opposite of the intended effect: a glut of unwanted development occurring under the very same zoning laws the town was attempting to change. The state's grandfathering laws have actually served as a discouragement to towns to pursue meaningful growth management initiatives.

The working group's amendment scales back the unprecedented length of time that grandfathering rights are attached to subdivision plans, bringing land developers' rights in Massachusetts more in alignment with rights provided by other states. Instead of the eight years currently stipulated, grandfathered zoning for subdivision plans under the proposed amendment would be a more reasonable three years.

The point in the process where grandfathering is

awarded has also been changed. Rather than gaining grandfathering rights by simply filing a preliminary plan, grandfathering of a developer's subdivision plan would only go into effect at the point when the plan has been officially approved by the town.

Consistency Between Zoning and Local Comprehensive Plans. As is the case on Cape Cod, the zoning ordinances and bylaws of a community are often inconsistent with a town's adopted local comprehensive plan. A great deal of time, thought and energy on the part of town planners and citizens goes into creating a vision for the community in the form of a local plan, only for the effort to fall short of its goals because local bylaws fail to reflect – and often contradict – the guidelines of the plan. Local comprehensive plans have no teeth in Massachusetts because state law makes no requirement that local zoning be consistent with the plan. Again, Massachusetts is out of step with most other states.

An amendment drafted by the working group would require that all zoning ordinances and bylaws be consistent with an adopted local plan. Successful passage of this amendment would place greater weight on the local plan as a central document for the community, one that serves as a true blueprint for how a town manages growth and protects its resources.

The Coalition for Zoning Reform

As a means to build political momentum for the zoning reform movement, the working group created the Coalition for Zoning Reform in 2001. Made up of land use professionals, independent organizations, town boards and even whole municipalities, the 140 coalition members will be called upon to express support of the reform movement to their legislators, as well as help generate local participation in the state-wide effort.

Cape Cod town boards, local officials, environmental organizations, community groups and others interested in advocating for change in Massachusetts land use laws are encouraged to join the Coalition for Zoning Reform. For more information, please contact Don Keeran at APCC toll free at 1-877-955-4142 or at info@apcc.org.

Summaries of the proposed amendments may be viewed on APCC's Web site, www.apcc.org.

“The state's grandfathering laws have actually served as a discouragement to towns to pursue meaningful growth management initiatives.”

APCC participates in Stellwagen Sanctuary review

The management plan for Stellwagen Bank National Marine Sanctuary (SBNMS) is currently undergoing review for the first time since it was established. APCC is participating in the review, and has submitted suggestions to help improve the management of the natural resources of Stellwagen Bank.

Stellwagen Bank National Marine Sanctuary stretches between Cape Ann and Cape Cod, and includes within its boundaries the submerged islands of Stellwagen Bank, Tillies Bank and Basin, and the southern portions of Jeffrey's Ledge. The Sanctuary preserves 842 square miles of ocean rich with marine life.

The ability of the Sanctuary to protect and sustain its natural resources is of primary importance. Limits set in place now to protect the Sanctuary's resources from overuse will likely prevent the need for more severe restrictions later. APCC proposed that the following suggestions be adopted in the updated management plan:

- Ensure that adequate funding be available for rigorous water quality monitoring and research of habitats, and habitat use by invertebrates, fish and marine mammals.
- Balance commercial and recreational uses, as mandated by federal law, while protecting and preserving resources more rigorously than is being done at present.
- Promote increased collaboration and cooperation among other agencies conducting research and monitoring in the marine sanctuary.
- Monitor the whalewatching industry to verify if complaints concerning the aggressive approach of whalewatching boats are valid, and if so, to rectify the situation.
- Increase public awareness of the Sanctuary and its work; for example, improve and regularly update the Sanctuary's web site.
- Encourage SBNMS to stop all discharging from vessels in the Sanctuary.
- Evaluate tighter controls on commercial travel through the Sanctuary.

Comments submitted by APCC and others will ultimately help form the foundation of the revised management plan.

APCC remembers Kate Davis

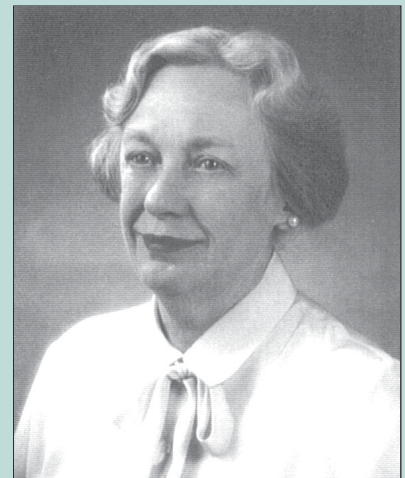
It is with a mixture of sadness and fond memories that APCC notes the passing of former board member and Cape Cod leader, Kate Davis.

Kate retired from APCC's Board of Directors in 1999 after having served for 14 years, but her connection to the organization as a member and volunteer reached back into the 1970s. During her time on the board, she held the position of Vice President and then Clerk, and was chair of several committees. In 1999, Kate's name was placed on the APCC Honor Roll for her outstanding contribution to the organization and its goals.

Cape Cod and the preservation of its environment were certainly her passions, but her involvement in the League of Women Voters of Cape Cod, the Cape Symphony Orchestra, and particularly in issues associated with the town of Orleans, where she resided, spoke to her broad talents and boundless energy.

Susan Kadar, a former APCC President who served on the Board of Directors with Kate, remembers her as a colleague and a friend. "She was committed, caring and, at least seemingly, very tough. When she allowed one to see under the shield of toughness, there was a warm hearted, soft, teddy bear of a person. The environment and all of Cape Cod lost a truly unique voice. We shall all miss her."

APCC wishes to thank those who sent donations to us in memory of Kate Davis.



*Kate Davis
1917-2002*

Three parcels are among the top open space preservation goals for 2003



Photo: Mike Lach

Part of the Pleasant Bay Area of Critical Environmental Concern, this 42-acre parcel along the Monomoy River in Harwich is a preservation priority.

With a new year just around the corner, APCC wishes to spotlight several land parcels that are high preservation priorities for 2003. Whether for watershed protection, the presence of rare plant and animal species, significant upland or wetland habitat value, land contiguous with other protected open space, or a combination of the above, each of the following parcels is critically important to Cape Cod as a region.

Crowes Pasture, Dennis. Known by many as one of the “last great places,” this 300-acre mix of upland, beach, marsh and pond habitats, bordered by Cape Cod Bay and Quivett Creek in North Dennis, was designated as a District of Critical Planning Concern earlier this year. A proposal for a 19-lot subdivision near some of the most sensitive areas within the DCPC has spawned a movement by the community to protect the ecological value and character of Crowes Pasture. Acquisition of 37 acres of privately owned land would prevent the unwanted development, plus the town has an option to purchase an additional 22 acres of abutting land. APCC has earmarked funds it pays for membership in the The Compact of Cape Cod Conservation Trusts to help sponsor efforts to permanently protect this special corner of Cape Cod.

Monomoy River, Harwich. Stretching for approximately one-half mile along the Harwich side of Monomoy River, this 42-acre jewel tops the Harwich Conservation Trust’s list of priority parcels. The gently rolling terrain consists of mixed upland woods dropping down to tidal riverfront, providing an important and diverse habitat for many amphibian, mammalian, avian and fish species. Monomoy River empties into Pleasant Bay, and is part of the state-designated Pleasant Bay Area of Critical Environmental Concern. The property serves as an upland buffer to the river, helping protect nearby shellfish beds and the water quality of Pleasant Bay. The land abuts 34 acres of town conservation land and 30 acres of land containing two town drinking water supply wells, further enhancing its environmental value. A subdivision of up to 30 lots or a golf course are two potential development threats to this particularly scenic parcel, which is one of the largest undeveloped shorefront properties in the Pleasant Bay watershed.

Dennis Pond, Yarmouth. Efforts are ongoing to preserve 7.5 acres of pond shore on the north side of Dennis Pond in Yarmouth. The 50-acre pond is a major coastal plain pond that is home to 12 rare plant species. Coastal plain ponds are fed directly by groundwater, and characterized by water levels that correspond to the rise and fall of the water table. Dennis Pond and other coastal plain ponds provide necessary habitat for unique plant species that are dependent on these fluctuating shoreline conditions. Small in size but great in habitat value, the 7.5 acres of preserved pond front would connect to 400 acres of conservation land found to the east and north.

For more information about these and other important parcels worth saving, please contact APCC toll free at 1-877-955-4242, The Compact of Cape Cod Conservation Trusts at (508) 362-2565, your local town Land Bank committee or private conservation trust.

Some information in this article was supplied by The Compact of Cape Cod Conservation Trusts.

APCC voices concern over MMR lease extension

As *Shore Lines* goes to press, Cape Cod awaits a decision from the state over whether a request by the Massachusetts National Guard to extend leases for the Massachusetts Military Reservation will be granted. Requests were made to the governor by the Army Guard, the Air Force and the Coast Guard to extend the existing leases up to the year 2051 for the areas of the MMR they each utilize.

APCC submitted comments to Gov. Jane Swift, Senators Edward Kennedy and John Kerry, U.S. Rep. William Delahunt, Environmental Affairs Secretary Bob Durand and the Cape's state legislators expressing concern over the Guard's proposal to extend its lease on the northern 15,000 acres of the MMR.

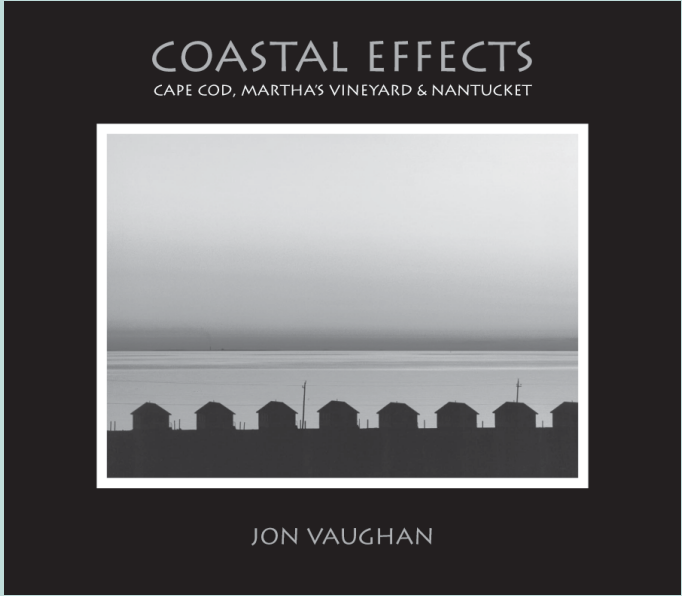
While APCC, in principle, supports a lease extension on the southern 5,000 acres of the MMR, we strongly believe a lease extension at this time for the northern 15,000 acres, land encompassing the Upper Cape Water Supply Reserve, is premature. Any discussion regarding long-term military activity on the 15,000 acres should occur only after unresolved issues concerning past contamination are addressed, and the impacts from current levels of military training are more fully understood.

The law signed by the governor in March, 2002 that codifies the agreement between the state, the Massachusetts National Guard and the Pentagon to turn over management of the northern 15,000 acres to a state environmental commission has only been in effect for less than a year, an insufficient time to satisfactorily test the effectiveness of the new system.

Current military activity on the water supply reserve has yet to be scientifically assessed to determine compatibility with protection of the aquifer, and so it is impossible to predict what future activity would be allowable under a new lease extension.

There are also several critical unresolved issues concerning groundwater contamination associated with the 15,000 acres. In July, new contamination in the form of perchlorate closed two public water supply wells in Bourne. More recently, RDX, an ingredient found in explosives, was detected in a private Bourne well. Other cleanup projects on the 15,000 acres are still ongoing. Additionally, the military has yet to discuss their fair share of the costs associated with

A Special Offer



Just in time for the holiday gift-giving season, APCC and Cape photographer Jon Vaughan announce a unique opportunity to own a breathtakingly beautiful memento of Cape Cod, Nantucket and Martha's Vineyard, while at the same time contributing to APCC's ongoing efforts.

For every copy of Vaughan's new photography book, "Coastal Effects," purchased at its normal retail price of \$50.00, a portion of the proceeds will go directly to APCC.

To take advantage of this very generous offer, "Coastal Effects" may be purchased at APCC's office at 3010 Main Street in Barnstable Village. For more information, please contact APCC toll free at 1-877-955-4142 or at info@apcc.org.

supplying clean water to Upper Cape communities.

Also of great significance is the lack of sufficient public input in the lease extension process thus far. To date, the citizens of the Upper Cape have not been afforded much opportunity to comment on the Guard's extension request, nor has adequate information been made available about the differentiation between the proposed lease extension for the northern 15,000 acres and lease extensions for uses on the southern 5,000 acres of the base.



An APCC membership makes a great gift!

A gift membership to APCC makes a thoughtful holiday gift for a loved one, friend or colleague, and also benefits Cape Cod's environment.

Please contact APCC toll free at 1-877-955-4142 or at info@apcc.org to find out just how easy it is to give a \$30.00 or higher APCC membership in someone's name.



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The Association to Preserve Cape Cod is a non-profit corporation founded in 1968 "to foster policies and programs that promote the preservation of natural resources on Cape Cod."

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