



## **QROE FARMS - combining open space, farm and residence**

*an overview by Markley Bavinger*

Between 1982 and 1997, approximately 25 million acres of croplands, pasturelands, woodlands, wetlands, and other types of America's open spaces disappeared under the press of urbanization. These 25 million acres represent a 47% increase, or a jump from 51 million acres of urbanized lands in the U.S. in 1982 to 76 million acres in 1997. Recent polls and voters' behavior suggest that there is a willingness among American people to pay to see this explosive land consumption end, or at least controlled to protect non-urban land-uses such as farming and valued environmental resources. However, as of yet, there have been very few market-based solutions to provide the American people with a mechanism by which to actively invest in and directly benefit from conservation activities.

One such market-based solution, developed by Qroe Farm Corporation of New Hampshire, is currently underway in New England. This solution offers an innovative solution from the private sector, a development scheme that allows homeowners to buy their dream house while preserving the working farmlands and open space that brought them there in the first place. The scheme relies upon real buyers in a real, unsubsidized market place. Farmlands and ecologically important landscapes are preserved by those who are living in the midst of them and benefiting daily from them, both financially and psychically.

First tested in the early 1970's at the 100 acre Todd Pond property in Lincoln, MA, the Qroe Farm concept marries residential, farming, and conservation interests with positive results. This development solution has been proven in several different locations throughout New England with

consistently strong returns to investors and support from new and existing residents, area conservationists and farmers, and regulatory agencies. Within the 3320 acres that comprise the Qroe Farm properties, over 780 acres of farmland and 2530 acres of open space have been conserved.

### **How Does It Work?**

The Qroe Farm concept is an ambitious limited development scheme with proven results. It seeks to integrate conservation land and small farming operations into the development profile of rural America. It seeks to do all of this within a free-market model that is being proven capable of absorbing all land-use types into a comprehensive greenbelt system.

Qroe Farm communities are comprised of a limited number of homesites positioned strategically within a larger landscape. Individuals who purchase a lot purchase more than just a homesite on which to build. Each lot owner actually purchases 0.5 to 1.25 acres for the homesite, a portion of the greenbelt equal to 1.0 to over 9.0 acres per unit, and a portion of the farmbelt where applicable.

While each homesite and a portion of the abutting greenbelt remain for the lot owner's sole use, the majority of the greenbelt is given over to the community. Within this community greenbelt, all homeowners and, conditionally, individuals from outside the Qroe Farm development are welcome to travel through and otherwise enjoy the landscape for passive recreational uses. Qroe Farm

consistently conserves between 80% and 95% of the total acreage within its greenbelt and farmbelt. Thus, in a typical 500-acre project, a homeowner may take title to 5 to 20 acres but will have access to more than 400 acres of protected land, all for a relatively small premium on his or her lot.

Private ownership of the greenbelt effectively provides a disciplinary mechanism absent in publicly owned lands. The very presence of the homeowners on sites adjacent to the greenbelts makes it possible to monitor the visitor activities. Significantly, if any abuse of the land does occur, the property owners have the authority to ask the offenders to leave the property or to compensate the owners for damages. To date, such actions have been unnecessary as Qroe Farm visitors have typically been aware of their guest status and have acted respectfully.

This greenbelt also serves to preserve wetlands, streambeds and habitat. Ideally this privately financed greenbelt is then integrated into a larger network of open space thereby enhancing the ecological and social values of such a scheme and creating greater connectivity for its users. The farmbelt, in those properties where one is found, serves to permanently protect and, vitally, to financially underwrite agricultural practices on portions of the landscape. This farmbelt ensures the preservation of the area's rural nature and scenic qualities and also provides a valued mechanism by which to support small farming operations wherever they are found.

## **Two Crucial Elements:**

### **The Marketplace and Easements**

The cornerstones of the Qroe Farm success are the marketplace and the easements. The desire of American individuals to own property within a preserved environment that has the natural amenities of adjacent open space and farmlands creates a market for this product type. Well-structured easements protect this valued commodity and create the social and regulatory norms that define how the community will manage the landscape in the long-term.

**The Marketplace** has proven that it deems the Qroe Farm product of value. Rarely can an individual buy

land on the outer periphery of development and know that the view will be preserved, that the passing stream will remain pristine, or that the neighboring farmlands will remain as such. This is in fact the very product that the Qroe Farm buyer seeks and has proven willing to purchase.

Qroe Farm properties have proven that people are willing to spend relatively more on initial land costs in order to acquire and thereby preserve community-held farmlands and open space. The assurance of continued quality of the landscape is enough to encourage residents to invest more heavily in the cost of acquiring the land than suggested by market norms. In most residential developments, one can reference the lot purchase price to make an assumption regarding the total expected investment in lot development. Not so with Qroe Farm buyers. In Qroe Farm communities, home construction has equaled a value exceeding ten times the investment in the land. In other cases, the lot price has equaled the cost of construction of the house, without diminishing neighboring values at all.

This investment into the property has been shown to pay for itself many times over. The positioning of residential units within greenbelts and farms leverages the significant added value attainable from that open space. As evidenced by sales of existing Qroe Farm homes, unit sale prices increase at a rate higher than unit sales in comparable non-Qroe Farm housing. In one instance a Qroe Farm lot was sold without a house built upon it. Eight years after it was purchased, this lot was sold for a value exactly ten times the original purchase price.

Americans' willingness to commit money to land conservation is reflected at the ballot box where voters have consistently supported ballot measures to fund open space protection. According to the Land Trust Alliance (LTA), voter passage of 173 of 209 referenda in the year 2000 led to the authorization of over \$7.5 billion for land conservation. This followed two years of similar support by voters. Qroe Farm properties now give individuals a more direct means by which to invest in and benefit from conservation.

**Easements** are a crucial element in creating and protecting the value of Qroe Farm properties. The Qroe Farm properties integrate mixed human land uses into the natural environment in such a way that

each user feels fully immersed in the natural environment that surrounds them and in the community it creates. The home environment is forever enhanced and protected within and by easements.

Qroe Farm makes use of private easements to accomplish land protection as an integral element of the living community. These easements, generated with the agreement of all members of the community in addition to an outside regulatory body, preserve agricultural uses, including forestry and environmentally sensitive landscapes, in perpetuity.

The easements are structured to ensure permanent protection and maintenance of the on-site greenbelt and farmbelts. Each easement intends to bind the community members into a shared agreement that will engender a spirit of cooperation with other stakeholders. Ultimately, clauses that specifically outline the expected treatment of the greenbelt and farmbelt can minimize conflict and produce effective tools by which to enforce restrictions.

The specific structure of the easements has evolved over time and each reflects the particularities of the site to which it relates. At one property, Qroe has sought to protect an operating farm. The easement related to this site goes beyond the protection of land for agricultural use to assure the future financial viability of farming operations.

Here, homeowners commit themselves to financially underwrite farming operations and agree to pay the farmer for losses sustained in a one-year period. The size of the potential payment to the farmer is assumed sufficient in size to ensure the farm's continued viability but limited by contract to an amount equal to 0.5% of the current assessed value of the contributing residential properties. This cushion ensures that the farmer will survive even during years of crop failure, market shifts and natural disaster. Farming profits are not shared with the community but are instead held by the farmer to be used at his or her discretion (e.g. for reinvestment into the farm or for personal purchases or investment).

To obtain this unique assurance of continued viability, the farmer agrees to sell the community title to his or her land (sold at fair market value) and to commit to maintain sound farming practice. The farmer's achievement of "sound farming practice"

can come under evaluation only after two years of financial losses. If it is proven that the farmer has acted negligently, the farmer can be replaced.

Possible tensions over the approach to farming operations are minimized within the easement by a statement agreed to by homeowners that they will not interfere in farming operations in any way. This means that homeowners are neither permitted to advise the farmer on his or her farming practices nor physically interrupt farming operations. This implies that the farmer is given full leave to operate the farm as seen fit and within applicable governmental regulations. This presumes acceptance of operations that may be considered by some to be unseemly as regards smells and noises.

### **Does It Work?**

The promise of the Qroe Farm concept when initiated was that, with the better marriage of apparently incompatible land uses, each of those uses significantly benefited. The achievement of that promise within the marketplace has been proven by a number of actual projects, some of which are illuminated below.

**Todd Pond** in Lincoln, MA was the first product by Qroe. Developed in the early 70's, this site served as the test case for the Qroe Farm concept. At this time, developer Bob Baldwin approached this project as the second shift of a career then dominated by the manufacturing industry. To Baldwin, the 100-acre Todd Pond site was vital to the town's environment because of 1.) Its central location in the community, 2.) Its popular pond and associated streams and wetlands, 3.) Beautiful and mature woodlands and topography, and, 4.) Active and diverse wildlife.



*photograph of Todd Pond*

Although the Todd Pond project encountered considerable skepticism from the planning and real estate communities that were unfamiliar with the concept, the project ultimately led to the permanent conservation of 35 acres and the achievement of market premiums of over 50%. Todd Pond's commercial and design success brought it national commendation. Importantly, the lessons learned during the course of this project led to further advances in the technique and laid the framework for future projects.

**Hayden Millpond** in Hollis, NH was developed decades after the Todd Pond project. Here the protected conservation lands at the site total 34 acres or 85% of the total 40 acres. A total of 9 lots were initially sited in an oasis setting of mature woods, two fresh streams and an undisturbed fresh pond. Homesites are located to minimize visibility to other homeowners. Conversely, each home is sited to provide its owner with direct views of the pond, the streams or both.

## Hayden Millpond Masterplan



Total Land Area	40 acres
Lot Size Allowed per Zoning	2 acres
Average Lot Size	4.4 acres (ultimately 5.0)
Land Permanently Conserved In Greenbelt	35 acres (88%)

Created as a conservation plan intending to protect the cultural and natural landscape of this unique site, the Hayden Millpond development has been praised. When the Planning Board approved the final plan, it referred to the developers as "conservationists." The local paper reflected the results with the headline: "New Concept Wows Planning Board." Board Chair stated, "It is the best plan that I have ever seen brought forward. It contains everything the Board has been asking developers to do for years, but rarely saw except through smoke and mirrors."

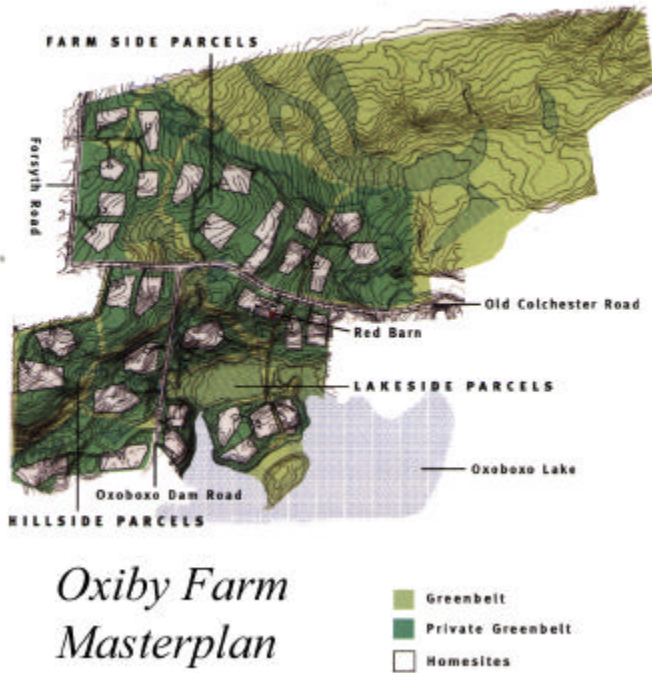
Hayden Millpond lots are 2-9 acres each. However, with designated conservation lands shared among the property owners, each landowner effectively holds 35 acres total. The project's success as well as the developer/investor group's commitment to conservation ultimately led to the placement of a conservation easement on one of the nine approved lots thereby removing it as a buildable lot.

Now with two lots remaining, Hayden Millpond is meeting expectations.



photograph of Hayden Millpond

**Oxiby Farm** in Oakdale, CT was developed in the wake of Hayden Millpond's initial success and is even more ambitious in its conservation goals. Bringing together extensive habitat, mature wooded trails and lakefront, the 241-acre Oxiby Farm site is six times the size of the Hayden Millpond site but allows only 3.8 times the number of lots.



Total Land Area	241 acres
Lot Size Allowed per Zoning	2-4 acres
Average Lot Size	7.1 acres
Land Permanently Conserved	
In Greenbelt	205 acres (85%)

The Oxiby Farm plan was approved only 30 days after submission. This fast approval and documented support of local officials and community members demonstrate the broad acceptance of the project. At the time of approval, Planning Director Martia Vlaun stated, "These people represent the very best in open space planning."

Extra time deliberately taken in design delayed the start of sales and put the program a few months behind pro forma. At issue was the manner in which to approach the open space. The property presented great richness in natural and scenic beauty. Two site features, a small offshore island and the lakeshore itself, became the center of a design discussion as to how to balance community access with homeowner privacy. While community

access to the lakeshore was desirable, such access in the open landscape was likely to infringe upon the privacy of the lakeside homesites. With the one-acre island presenting itself as a potential homesite valued at as much as half a million dollars, financial considerations were also of consequence.

Ultimately, the team comprised of the developer, conservationists and local engineers determined that the best solution was to place both the island and the shoreline within the 205-acre greenbelt system so as to permanently protect their scenic and ecological value. Parts of the shoreline were placed into the private greenbelt system, a small subsection (approximately 5%) of the larger greenbelt system that is not publicly accessible and is positioned so as to preserve the privacy of the homeowners. The island became an important feature to the community greenbelt and could be accessed by all via a small bridge.

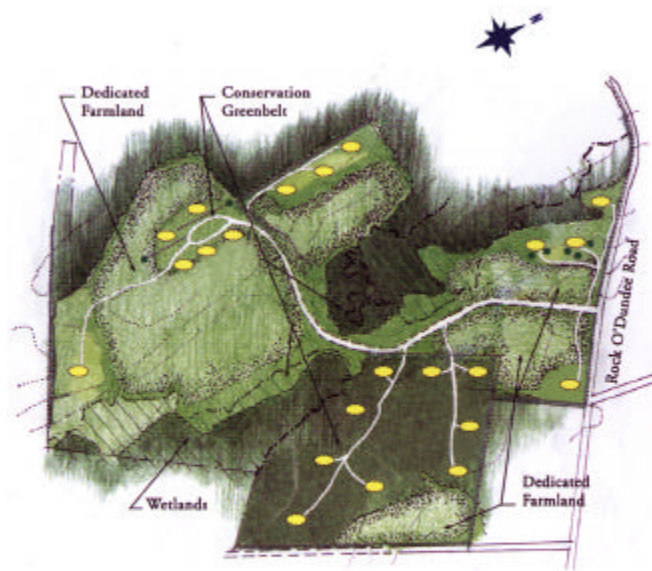
The success of the site's design can be seen in the project's performance. Lot pricing is running well above plan and the absorption rate is as expected. Actual performance to date indicates that the pro forma IRR of 33% will be considerably exceeded as a result of higher prices, lower than expected development costs and an expected acceleration in the absorption rate.



*photograph of the lake at Oxiby Farm*

**Pardon Hill** in Dartmouth, MA reflects the added content of active farming and the underwriting feature of the Qroe Farm concept. Containing 177 acres of rolling field, woodland and wetlands, Pardon Hill contains the rural features and distinct

oceanside landscape of this popular New England community.



## *Pardon Hill Masterplan*

- Farmbelt
- Greenbelt
- Homesites

Total Land Area	177 acres
Lot Size Allowed per Zoning	2 acres
Average Lot Size	7.8 acres
Land Permanently Conserved	
Greenbelt	87 acres (49%)
<u>Farmbelt</u>	<u>60 acres (34%)</u>
Total	147 acres (83%)

In 1999 when the Pardon Hill property came up for sale, it seemed likely that the property would be turned over to advancing residential development. In fact, much of the adjacent landscape had already been subdivided and filled with ranch style homes. At the Pardon Hill property, current zoning allowed for more than 70 lots of 2 acres each. Instead of churning out the 70 lots, Qroe introduced a scheme that would allow only 22 homesites and act to preserve small scale farming operations on-site.

The siting of the 22 lots was intended to provide maximum privacy while immersing families in the agricultural character and the surrounding woods. These homeowners, who are typically moving from higher density urban areas to seek a more rural environment in which eventually to retire, have taken part in the permanent dedication of over 145

acres of open space. The open space approach is designed to protect sensitive wetlands and woodlands while providing homeowners preserved viewsheds and access to trails and conservation lands.

The conservation scheme developed by Qroe Farm enabled the protection of a 147-acre open space system of which 60 acres are permanently dedicated to active farming use. Currently one non-resident farmer harvests corn and hay and grazes dairy cows on the 60 acres within the farmbelt. Slowly, as residents have become more rooted in the site and the community, several have applied to the community to be allowed to utilize portions of the 60 acre farmbelt for smaller scale operations such as horse farming, grape harvesting and hay production. If the community accepts these applications and does not renew the contract with the current farm manager, a community of small, resident farmers will be created. As small farmers, homeowners will tend to the adjacent fields and crops with their individual attention and passion.

Now about two-thirds sold, Pardon Hill is running ahead of projection. Actual performance to date indicates that the pro forma IRR of 27% will be exceeded, primarily because of higher lot prices. Indeed, because of performance and the feelings of the principals toward conservation, an additional conservation easement will be placed on one of the 22 approved lots, thereby reducing the building sites to 21, and adding to the already substantial conservation easement.



lot as well as those of adjoining lots held within the Qroe Farm property.

All of these projects are meeting industry expectations as to financial performance. Without sacrificing that performance, they are surprising the industry by also contributing significantly to the ecological and cultural environment in which they reside. The alternative growth pattern proposed by Qroe intends to maintain significant greenways and farmlands closer into the urban core. The incorporation of an extensive natural environment reside. As these projects attest, the integrated land use approach of the Qroe Farm concept can address several important concerns regarding land abuse. Significantly it does so voluntarily to the ready satisfaction of the real marketplace.

The rolling extension of this concept over a larger area, "Qroelling," can produce a landscape in which farming, the natural environment, and residential users are merged. Non-residential users such as office, industrial and retail users can also enter into the mix. The resulting pattern of land-use would provide a viable rural landscape to counter the now dominant pattern of rural conversion to tract homes. Housing, shopping, working, governing and playing - always with a heavy dose of nature - can be integrated with the land and with each other as inevitable growth occurs.

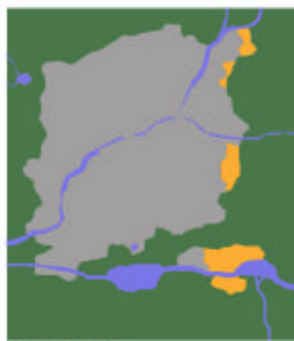
True to this vision, Qroe Farm now seeks to incorporate commercial users into the development mix. Integration of an office/research/industrial park allows for interesting design possibilities to emerge such as the use of the greenbelt as a central locus for social interaction among employees. Placement of a network of commercial entities about a core landscape that provides opportunities for meeting under the canopy of mature trees and lunch-hour walks, runs and bike rides can provide significant benefits in recruiting and employee performance

### Future Implications

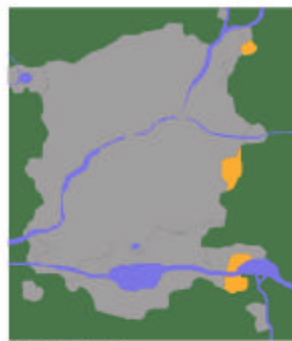
Considered on a one-off basis, the benefits of the Qroe Farm concept are clear. With a marginal up-front investment in the land, the Qroe Farm homebuyer can ensure the continued quality and value of his or her long-term investment. The Qroe Farm buyer can be confident of the preservation of the scenic and ecological values of the buyer's own



existing condition



stage 1 growth



stage 2 growth

**'business as usual' growth pattern**



existing condition



stage 1 growth



stage 2 growth

**Qroe derived growth pattern**



Potential growth scenarios in which Qroe strategies are utilized (below) and in which they are not (above)

and turnover. Office leasing agents are likely to find that such an environment improves the per square foot rent that can be garnered.

The alternative growth pattern proposed by Qroe intends to maintain significant greenways and farmlands closer to the urban core. The incorporation of an extensive natural environment during growth creates valuable and accessible amenities for the community. As stated by Baldwin, "No more driving ever further and further to access a piece of open space or a rural landscape. Instead, open space and farms, with all of their virtues and values, become a consequential part of the growth, not an inconsequential victim of it."

Application of the Qroe Farm technique throughout the rural landscape will generate opportunities to create greater connectivity among landscape elements. The interconnection of the greenbelt and farmbelt systems of several adjacent communities yields a significant open space system to be used by both pedestrians and wildlife. Such a system clearly adds to the scenic quality and recreational benefits of the area. It will also provide greater opportunity to protect ecosystem process by allowing for vital and healthy flows of energy, materials and biota.

With the rural landscape slowly being pushed away from the urban center, the Qroe Farm concept offers a solution by which to fund and maintain meaningful nature preserves and farmlands within the reach of the urban population. Although Qroe Farm property owners are under no obligation to provide public access to their lands, many do. For those who do not, the scenic quality provided to road users is a gift regardless and certainly the ecological and cultural benefits remain evident.

### **Shared Goals, Shared Profits?**

Furthering the positive impacts of the existing Qroe Farm properties would certainly be possible with additional input from other developers and agencies. At present, the concept is relatively unexposed. The proof of the financial viability at Qroe Farm may encourage other developers to market a similar product type. Although Qroe actively seeks and incorporates the opinions of area conservation organizations and farmer associations,

such organizations could further their own goals if they were to become more directly involved with the process or to implement the Qroe strategy on their own.

Significant distinctions between the market-based approach of Qroe and that of conservation organizations do exist. Significantly, the Qroe Farm strategy does not rely upon donations or government subsidies. It is a market-based approach for which changes in political winds have no effect. At this time when resources available to land conservation are somewhat strapped, the Qroe Farm strategy can provide a valuable funding mechanism.

For example, according to the American Farmland Trust, state and local programs such as purchase of agricultural conservation easement (PACE) programs, are currently unable to meet demand for their services. PACE programs, devised to compensate landowners for the development value of the land in exchange for the creation of an easement that permanently protects the land for agricultural uses, have backlogs of thousands of farmers' applications for agricultural conservation easements.

Insufficient funding for farmland conservation is to blame for this backlog. PACE programs are typically state and locally run and rely on a variety of funding sources, including federal funds. With federal funding for such programs being eliminated next year, this mechanism of agricultural conservation will face even greater funding challenges in the future. Ironically, decreasing federal support for farm conservation moves in opposition to voter support of initiatives such as PACE. In a recent national poll, 69 percent of American voters said they were concerned about the loss of farmland to development and the majority, or 53 percent, feels that increasing funds to protect productive farmland from development should be a national priority.

The Qroe Farm product can act as a market-based supplement and/or alternative to PACE programs. The PACE programs, while similar to Qroe Farm in their intention to permanently protect agricultural lands, differ from Qroe in that they do not offer a mechanism by which to protect the long-term financial viability of farm operations. As discussed earlier, Qroe Farm homeowners financially

underwrite farm activities. Additionally, Qroe compensates the farmer for the entire value of the land, not only the lost development value. In this way, Qroe acts in the same way that any potential land buyer would with the important exception that the farm will continue to operate as a farm under the supervision of the existing farmer, if so desired.

Land trusts are another likely partner in Qroe's effort to protect land resources. While most organizations typically identified as being supportive of conservation have not been proactively involved in limited development projects, several have recently begun promoting conservation buyer programs. Conservation buyer programs, a number of which are located in the western United States, list properties that are available for purchase and have been identified as ecologically or culturally valuable to the conservation organization. The conservation organization works with potential buyers to devise a purchase agreement that will involve the placement of a conservation easement on the property as a term of the sale.

Again, the goals of the land trusts that have created conservation buyer programs are similar to those of the Qroe Farm people. However, land trusts involved in limited development of this nature must grapple with the diverse voices of their constituents who are often unsettled by the prospect of positioning homes within currently undeveloped landscapes, even if the homes number far fewer than will be developed if nothing is done.

While Qroe does incorporate such opinions into its design process, execution of land transactions is much less politically charged and as a result, more streamlined. Additionally, the conservation buyer programs are effective in attracting single instead of multiple homebuyers, as is done by Qroe. At Qroe Farm properties, this distinction allows for a merging of the resources of many to achieve conservation objectives thereby lowering the per-unit cost to buyers. As has been proven at Qroe Farms properties, this distinction enables individuals of various income brackets to contribute to conservation.

## **The Team**

The Qroe Farm concept is one that actually does what has been assumed to be impossible – it has

provided an option to the continued sprawl – and the market has responded. As a result, there is now evidence that individuals are willing to invest in quality of life issues at a reasonable price.

Those involved with the Qroe Farm concept are eager to see the concept extended to other properties and through other developers, and, to incorporate other land-use types. Rallying to this opportunity and challenge, the Environmental Design Group, Inc., (EDG), a non-profit based in Somerville, MA, has assembled a strong team of national experts in the related disciplines. EDG is pressing forward with the refinements and development of the new frontiers promised by this concept. Its Environmental Growth initiative congregates a dozen senior professionals with the shared goal of determining better ways to accomplish growth within the absolute reality of a free and independent marketplace.

Additional information about Qroe Farm Corporation and its properties can be found at [www.Qroefarm.com](http://www.Qroefarm.com). To learn more about and to contribute to the Environmental Growth program, contact Jim Batchelor, Chairman of EDG, at 617-623-5555 or at [batchelor@arrowstreet.com](mailto:batchelor@arrowstreet.com).

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