Received on November 30, 1987.

FINAL REPORT ON THE DEVELOPMENT OF NATURAL GAS IN THE COASTAL REGIONS OF CAYUGA COUNTY AND ASSOCIATED ENVIRONMENTAL, SOCIAL, AND ECONOMIC CONCERNS

APPENDED MATERIALS

TN881.N72C63 1987 Appendices c.1

PREPARED FOR THE NEW YORK STATE DEPARTMENT OF STATE

FEDERAL GRANT # NH-83-AA-D-CZ035
CONTRACT NUMBER D000359
BY THE CAYUGA COUNTY PLANNING BOARD

TN
881
.N72
C63
1987
APPENDICES

OCTOBER,1987

INTRODUCTION

When the concerns surrounding the potential development of natural gas in the Coastal Area of Cayuga County were initially identified, it was assumed that a County posture would evolve which either advocated or opposed such development. The resulting approach was therefore structured to allow the identification of potential environmental impacts as well as the potential social and economic benefits. It was imagined that such a policy concerning development would simply result from a clear picture of benefits and detriments, as a result of "weighing" one side against the other.

The review of environmentnal conditions in the Coastal Area has been far more detailed than was initially thought possible. This was due, in no small part, to the integration of a computerized GIS into County Planning operations during the project. A more detailed analysis of the Coastal area than originally imagined resulted in the molding of a policy that neither advocates nor opposes natural gas development. It became clear that the precise siting of natural gas development facilities within the Coastal Area would determine the scale and significance of resulting environmental impacts. To complicate the situation, the range of benefits from such development is now known to be tied to the precise nature of the development vehicles applied as well as to the production values of the wells.

The impacts associated with the development of a gas well on a 15% slope adjacent to a protected wetland in an aquifer recharge area would be substanially different than those associated with the development of a gas well on a 1% slope in an inactive pasture, without groundwater concerns. Similarly, the economic benefit from the well would be different in a private investor owned utility than those anticipated from a publicly owned gas development and distribution vehicle.

It is also worthy of note that the New York State Department of Environmental Conservation was developing a generic impact statement on gas well development during the development of this report. Yet, this office was unable to secure copies of this document, since it was being circulated internally in draft form. The development of County policy was made somewhat more difficult by the absence of a clear picture of NYSDEC concerns with respect to gas wells. Clearly the relationship between local and state policy is of importance since the primary control over gas development is vested at the state level.

The development of a County perspective on the gas development issue is never-the-less a useful endeavor. The resulting policy recommendations, though not within the black and white arena of advocacy versus opposition that was imagined initially, represent real "position". The following material is intended as a synopsis of that position.

POLICY RECOMMENDATIONS:

*****

The County should neither advocate nor oppose the development of natural gas within the Coastal Area of Cayuga County. The interest in natural gas development is manifest by the finding that an estimated 448 acres of mineral rights (or 5% of the Coastal Area), has been leased. Although no current pressure exists to develop these areas, it follows that attention be given to local controls and activities in in the near term future, while such work can be undertaken in a non-reactionary climate. Although substantial environmental concerns have been identified, current circumstance allows the time to explore mitigation vehicles. Advocating gas development at this time would be counter-productive to this exploration. Such advocacy would also be in conflict with existing state policy in respect to the development of natural gas in the Coastal Area. In the absence of current gas development pressure, an oppositionist policy would divert attention from more constructive mitigation efforts.

*****

A coordinated multi-jurisdictional approach to the development of a facilities transmission corridor should be undertaken, if the development of natural gas in the Coastal Area is to be pursued. Soil mapping units and related characteristics present difficulties for transmission facilities oriented in East-West directions. The area adjacent to Route 104A should be given primary consideration in any effort to establish such a corridor.

*****

Local involvement in the leasing process should be encouraged since economic, land use, and environmental impacts result from the cumulative effect of provisions dealing with these aspects within individual leases.

*****

Local municipalities, working with Sea Grant, New York State Cooperative Extension, Farm Bureau, and the Environmental Management Council should provide information to landowners on property rights as related to the issue of selling or leasing mineral rights. A regular and ongoing program should be considered for this purpose. It is recommended that

a mini-course be developed on this topic with Cooperative Extension, along with associated materials. A video tape should be developed on this topic which could be the cornerstone of the mini-course.

* * * * *

The County should consider the viability and legality of requiring leasing agents to file a certificate for doing business. Such a requirement would provide a mechanism for defining the need for informational programs, and the distribution of educational materials, as recommended above.

* * * * *

A data exchange program should be developed which encourages the exchange of information between gas developers and the local resource agencies with organized natural resource inventories. The integration of detailed resource data on surface and subsurface conditions could help prevent unnecessary risks associated with gas development facilities. Similarly the gradual development of understanding of sub-surface conditions from non-proprietary well logs would be of considerable benefit to the town and County. Both the developer and the community would stand to benefit from such an exchange of information. Primary among the environmental concerns in the Coastal Area are the following conditions:

LAND USE AND LAND COVER

1. Significant portions of the Coastal Area (approximately 28% or 2573 acres) are included in wetland, residential, and surface water categories. Wells, pipelines, and or compression stations would be problematic if placed in inappropriate proximity to such areas.

TOPOGRAPHY

2. Nineteen (19) distinct drumlin type hill formations can be counted within the Coastal area of Cayuga County, along with a profusion of associated wetlands, streams and ponds. Aproximately 36% of the area exceeds 8% in slope, with an additional 33% of the land area lying imediately adjacent to these severe slopes. Only 12% of the land area is in fact more than 750' away from a severe slope.

SURFACE HYDROLOGY

3. **Sixteen (16) percent of the area lies under surface waterbodies, with an additional fifteen (15) percent included within a 100 year flood plain. Eight-four (84) percent of the flood plain is also protected freshwater wetland.**

SOILS

4. High corrosion potential is associated with about 9% of the 53 soil mapping units which exist in the Coastal Region. When depth to bedrock, depth to seasonal high water table, shrink-swell potential, and errodibility are considered equally problematic characteristics, some difficult issues emerge. Forty-three (43) percent of the area exhibits two or more of these problematic characteristics. Thirty-four (34) percent have one of these characteristics, while twenty-one (21) percent exhibit no soil incompatibilities.

* * * * *

The Village, Town, and County should consider the development of discretionary road permit systems and driveway permit systems at the local level. This would provide a mechanism through which potential damage to the structural integrity of County, Town, and Village roads from heavy equipment could be mitigated. The potential costs of damage to transportation infra-structure could exceed the economic capacity of local government. It is recommended that consideration be given to posting roads on a calander basis, such that the weight of the transport vehicle would trigger the permit requirement during critical times of the year. This would be a supplement to existing State requirements covering the movement of heavy equipment on State roads.

The driveway permit system would afford a measure of control over the placement of access roads (ingress and egress) in respect to traffic safety and related issues such as drainage and erosion along roadside ditches.

* * * * *

A better mechanism should be found for coordinating drilling and transmission line permit applications between the State and local governments. Existing rules and regulations seem to discourage this interface, but the need is obvious. The utility and legality of requiring gas drillers to file certificates for doing business should be explored to provide the mechanism for the transfer of information about local conditions to the drillers. (State enabling legislation may be required.)

* * * * *

Assuming that local government notification could occur, an internal routing system should be established between Town, Village, and County agencies to review drilling, transmission facilities, and gas gathering proposals. Such a system would insure the creation of a consensus of local concerns, integrating the review of local data on resource conditions, which is typically more detailed than that which is available from the State. (e.g. local water supplies, land use and land cover, locally significant habitat, wetlands less than 11.4 acres in size.) The Environmental Management and Construction Plan would provide basis for this review. The Planning Board, Highway Department, Soil and Water Conservation District, and Health Department, as well as appropriate representation from the Town and Village level should be incorporated in this review.

* * * * *

The State should be urged to treat the review of applications for drilling permits or transmission and gas gathering systems as incomplete untill local reviews have be done or a prescribed period of time has lapsed, following local notification. (Amendments to State review regulations may be necessary)

* * * * *

Mechanisms for careful scrutiny of potential water contamination should be explored. The economic impact of a lost municipal water supply could overpower the benefit from tax revenues.

* * * * *

Negotiations between the developer of a gas development facility and the body responsible for emergency response capability should be encouraged. Response training and equipment needs should provide the basis for such negotiations, against a backdrop of assigned financial responsibilities for such activities.

NOAA COASTAL SERVICES CENTER LIBRARY
3 6668 14109 2728