The effect of New Residential Development on Cranbury's Agricultural Zone, prepared by Linda Bentz

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The Effect of New Residential Development on Cranbury's Agricultural Zone

Linda K. Bentz, PP, AICP

Prepared for: Cranbury Township July, 1985

PROPESSIONAL PLANNING

July 21, 1985

William C. Moran, Jr., Esq. Cranbury-South River Road Cranbury, NJ 08512

RE: Urban League vs. Cranbury Township

Dear Mr. Moran:

Attached is my report on "The Effect of New Residential Development on Cranbury's Agricultural Zone." The report evaluates the consequences of the development of three tracts currently under Mt. Laurel II litigation and specifically addresses critical issues raised in the June, 1985, report prepared for Cranbury Land Company by Professor John M. Hunter.

Sincerely,

Linda K. Bentz, PP, AICP

The Effect of New Residential Development on Cranbury's Agricultural Zone

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The Effect of New Residential Development on Cranbury's Agricultural Zone

<u>Overview</u>

Only a handful of municipalities in central New Jersey are fortunate enough to have several thousand acres of essentially uninterrupted prime agricultural soil. Cranbury is one of them. The farmland west of the village joins with that of Plainsboro and West Windsor to form the single most significant agricultural center in the middle of our State. This land, among the most productive in the world, has been farmed and well-husbanded for several hundred years. The history of agricultural production shows the resourcefulness of the area's farmers in responding to changing market conditions. In fact, the average value of agricultural production per acre for this area is more than four times higher than the national average and significantly greater than that of the State.

Even in the midst of the enormous development pressures of the 1980s, farming continues within this agricultural enclave without serious interference from non-agricultural traffic, nuisance complaints, and the other conflicts that inevitably result from the intermingling of agriculture and other users of land. In fact, farmers are willing to pay premium rent for the opportunity to farm in this area.

Only the Shadow Oaks development provides visible evidence of the growth pressures that threaten farmland within the Township. In an effort to halt further loss of farmland, in 1983 the Township adopted a farmland preservation program, which included an agricultural zone, to minimize future development of this area.* The zone, rooted in a thorough analysis of the intrinsic qualities of the soil as well as a variety of land use considerations, represents one of the best examples in the State of the application of sound planning principles to the protection of farmland. Many communities have wrestled with techniques to retain farmland. Few have acted as responsibly and decisively as Cranbury.

Nevertheless, the zone is not secure. New threats have emerged. Of most immediate concern are legal challenges to develop two critical parcels within Cranbury's agricultural zone, specifically the tract owned by Cranbury Land Company, known as Site Number 9 in the Mt. Laurel litigation, and the tract owned by Toll Brothers, known as Site Number 7. In addition,

^{*}The history of Cranbury's agricultural zone is included in "Cranbury Township's Response (Partial) to Comments on its Mount Laurel II Compliance Program submitted by: Garfield & Company, Lawrence Zirinski, Cranbury Land Company" by George M. Raymond, Chairman, Raymond, Parish, Pine & Weiner, Inc., p. 19.

development of Site Number 6, the Zirinsky property, will have negative consequences on the zone and the future of agriculture unless special precautions are taken.

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Under ordinary circumstances, the Township would likely be able to withstand with ease the legal challenges that often accommodate agricultural zoning.* But for Cranbury the issue is complicated by the existence of an unmet Mt. Laurel housing obligation. Consequently, the burden now rests with the Township to establish that, because of "substantial planning concerns, the plaintiff's proposed project is clearly contrary to sound land use planning." (Mt. Laurel II, p. 130.)

It is, therefore, the purpose of this report to demonstrate that the development of the Cranbury Land Company and Toll Brothers properties would violate the sound planning principles represented by the Township's aricultural zone. In so doing, the long-term continuation of agriculture in Cranbury will be jeopardized. This report will also show that development of the Zrinsky property should be handled with utmost care and sensitivity to agriculture.

^{*} In a recent analysis of legal challenges to agricultural zoning, Professor Sarah Redfield of the Franklin Pierce Law School, concludes that, in most litigation, agricultural zoning has been found constitutionally defensible. [Redfield, Sarah. <u>Vanishins Farmland: A Legal Solution for the States</u> (Lexington, 1984, p. 41.)]

This document contains five parts. The first states the qualifications and experience of the author. Second is an analysis of agricultural viability in New Jersey and Cranbury. Third is the establishment of modern agriculture's incompatibility with residential users. This part is followed by the introduction of agriculture's peculiar planning needs. The final section is an analysis and conclusion of the specific short-term and long-term effects of developing the Toll Brothers and Cranbury Land Company parcels as well as the potential negative consequences of developing the Zirinsky tract.

I. The Author

Linda K. Bentz has professional and personal qualifications that uniquely qualify her to evaluate public efforts to save farmland in New Jersey. Her background blends a working knowledge of agriculture with ten years combined academic training and experience in growth management for the conservation of natural resources.

She is a licensed professional planner in the State of New Jersey and a member in good standing of the American Institute of Certified Planners and the American Planning Association, including the New Jersey Chapter. She received a Master of Regional Planning from the University of North Carolina at Chapel Hill and a B. A. from the Liberal Arts College of the Pennsylvania State University.

She is also a farmer. She was born and raised on a farm in York County, Pennsylvania. She married a farmer. She and her husband now farm more than 200 acres in Hunterdon County. They own 70 acres and rent the remainder. Their operation includes fruits, vegetables, nursery stock, soybeans, and hay. Consequently, they are intimately familiar with the economics of a variety of agricultural commodities.

Ms. Bentz moved to New Jersey in 1980 to become Associate Director to the Middlesex Somerset Mercer Regional Study Council, Inc., a private non-profit planning research group in Princeton. Her primary responsibility was to direct the Council's three-year farmland retention program. Under her direction, MSM quickly became a respected source of information and advocacy for municipal, county, and state efforts to retain farmland. an active participant in the drafting of both the New Jersey Agriculture Retention and Development Act of 1983 and the Right to Farm Act. She instituted and edited MSM's Garden State Agland Reporter, the State's first newsletter to keep interested citizens and government officials alerted to one another's She also authored farmland retention studies for Hunterdon County and Cranbury and Washington Townships. instance, the respective governments have used her work as the backbone of their public policies to retain agricultural land.

She has spoken to numerous townships and civic groups, including the Association of New Jersey Environmental Commission the League of Women Voters, and the American Association of University Women, on her work and the development of a planning framework for use in farmland retention. Her influence and

experience in this topic has extended beyond New Jersey. She has participated in several regional conferences regarding farmland retention. She also wrote a paper and conducted a seminar on "The Economic Prospects of Northeastern Agriculture." The seminar, which was held at the Old School in Cranbury in Spring, 1981, was attended by nationally-renowned agricultural and land economists.

In November, 1984, Ms. Bentz formed her own planning consulting business. Although she has expanded her workload to include comprehensive growth management, she has maintained her involvement in farmland retention and the needs of agriculture. Her current clients include two municipalities who have asked her to aid them in developing farmland retention plans and ordinances and the New Jersey Department of Agriculture, which has asked her to investigate the future water availability for agriculture.

She has also become actively involved as a private citizen both in organizations concerned exclusively with farmland retention and organizations concerned with broader agricultural issues. She is a member of the Hunterdon County Agriculture Development Board and an advisor to the State Agriculture Development Committee. Additionally, she is a member of the Hunterdon County Board of Agriculture, who elected her to serve as their alternate director to the New Jersey Farm Bureau for 1985.

II. Agricultural Viability in New Jersey, Middlesex County, and Cranbury Township

Since the late 1970s, when farmland preservation surfaced as a significant issue in municipal planning and zoning throughout the eastern United States, public policymakers have wrestled with the issue of fairness to the current owners of farmland. Fairness in the exercise of land use policies and regulations involves a complex analysis beyond the scope of this paper. One component, however, the question of reasonableness, must be addressed. Is agriculture a reasonable and profitable short-term and long-term use of land within Cranbury's agricultural zone? Can the public, in good conscience, expect the land to be farmed by an entrepreneur? In short, is agriculture viable in Cranbury Township?

The Court has received expert testimony from Professor John Hunter portraying a bleak present and future economy for agriculture in Cranbury in general and for the Grand Land Company parcel in particular. * As evidence of the improbable survival of most of Cranbury's agricultural industry, Mr. Hunter points to stiff competition from the "national agricultural industry" (p. 5), the decline of the white potato industry (p. 8) and

^{*&}quot;The Impact of a Selected Residential Development on Agriculture in Cranbury Township" by John M. Hunter, Professor Emeritus in Agricultural Policy, Rutgers University, for Cranbury Land Company, June, 1985, pp. 1 - 13.

a subsequent failure by the area's farmers to adapt to new market conditions (p. 10), the rapid aging of existing farmers (p. 10), and the preponderance of non-farmer owners of much of Cranbury's land. Upon completion of his analysis, Mr. Hunter reasons that the impact of the development of his client's tract is all the more insignificant because of the weakened agricultural economy that pervades the Township (p. 21).

This report, which finds Mr. Hunter's analysis incomplete, offers, instead, evidence that Cranbury's future agricultural prospects are filled with potential, if the Township's agricultural zone is respected and upheld.

New Jersey's Agriculture in Perspective

Without doubt, the nation's agricultural industry is in an economic slump. Low soybean, wheat, and corn prices have hurt growers nationwide. Recent changes in federal agricultural policy have sent waves of uncertainty through many agricultural circles. New Jersey's farmers have, of course, been affected by these conditions.

But New Jersey's farmers are in a position of relative strength. In the most recent (1982) U. S. Census of Agriculture, the national average value of production per acre for agricultural

commodities was \$191. For New Jersey the average value of production per acre was \$565, the eighth highest average in the nation.

New Jersey's farmers draw their economic strength from several sources. Foremost is the quality of the State's soils and a high level of natural rainfall, usually well dispersed throughout the growing season.

Second is proximity to a large domestic market. The State has insufficient land to meet the food needs of its own population, let alone the nearby metropolitan markets of New York and Philadelphia. Table I places food production in regional perspective and shows that, as of 1980, New Jersey's population relied on roughly 10,825,000 acres to feed itself. However, only 1,232,000 acres was available for production within the State, much of which was, and still is, used to grow grain for export This pattern runs throughout the Northeastern region so markets. that, when totaling for the ten states on the table, a 50,000,000 acre "deficit" of farmland emerges. These statistics confirm that, out of necessity, New Jersey, along with the rest of the Northeast, imports the majority of its food. The statistics also demonstrate the marketing opportunities available to the State's farmers.

Third, New Jersey's proximity to foreign export markets in

Table 1

Supply and Demand
for Food Production in the Northeast

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(Acres)

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	Supply	2	
	(Existing &	Demand for	
State	Potential)	1980 Pop.	Difference
	*		
Connecticut	418,000	4,568,137	-4, 150, 137
Delaware	662,000	874,981	- 212,981
Maine	1,356,000	1,653,250	- 297,250
Massachusetts	515,000	8,433,444	-7, 918, 444
New Hampshire	535,000	1, 353, 297	- 818, 297
New Jersey	1, 232, 000	10,825,312	-9,593,312
New York	9,308,000	25, 809, 213	-16,501,213
Pennsylvania	8,529,000	17,444,090	-8,915,090
Rhode Island	63,000	1, 392, 316	-1, 219, 316
Vermont	1, 226, 000	751,840	474, 160
TOTAL:	23,844,000	73, 105, 880	-49, 261, 880

National Agricultural Lands Study, `Interim Report Number Two: Agricultural Land Data Sheet.'' June, 1980.

The figure for demand is arrived at through multiplication of each state's 1980 pulation (U.S. Census) by 1.47, the number of acres necessary to feed one person (exclusive of the kinds of commodities that cannot be grown in the region). The figureas derived from averaging the per capita figures determined for the states of Maine and Pennsylvania by Rodale Press. See chart on `Maine Food Impts' in The Cornucopia Project, `The Maine Food System: A Time forhange,' Emmaus, Pennsylvania: Rodale Press, and the chart on `Pennsylvania Food Imports' in The Cornucopia Project, `The Pennsylvania Food System: Crash or Self-Reliance?' Emmaus, Pennsylvania: Rodale Press.

Source: MSM Regional Study Council, `The Economic Prospects of Northeastern Agriculture,' Princeton, N. J., 1981, p. 12.

Philadelphia, Maryland, Delaware and New Jersey's own shore often give farmers a competitive edge in grain prices. For example, on July 11, 1985, New Jersey farmers could sell their soybeans for up to \$5.84 per bushel in the Maryland/Delaware markets. On July 12, 1985, farmers in central Illinois could sell soybeans for \$5.625, \$.215 per bushel less than New Jersey's farmers.*

These two marketing factors highlight the flexibility available to New Jersey's farmers. When wheat and soybean prices skyrocketed in the mid-1970s, many of New Jersey's farmers, on the advice of the federal government through the U.S. Department of Agriculture, were quick to make major investments in a shift away from fruit and vegetable production. Although many of these farmers have been discouraged by the recent downturn in prices, others have begun to respond by shifting back to or starting with vegetable production to take advantage of the large market for fresh produce. This trend is being encouraged by the New Jersey Department of Agriculture's ongoing

Finally, New Jersey's farmers have one operating advantage of great significance: proximity to numerous agricultural support

^{*} New Jersey prices were reported in "Market News" by the New Jersey Department of Agriculture, Division of Markets, July 11, 1985. Central Illinois prices for July 12, 1985, were reported in "Cash Prices," The Wall Street Journal, July 16, 1985, p. 48.

services.* Although it is true that the number of suppliers has diminished and that services are more concentrated than they were ten years ago, it is also true that, compared to their midwestern counterparts, (many of whom are several hundred miles away from critical supplies) New Jersey's farmers can get supplies and parts fast. At critical moments, the speed with which supplies and parts can be attained can make a several thousand dollar difference in a farm's income.

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<u>Middlesex County and Cranbury Township's Agriculture in</u> Perspective

Farmers in the Cranbury area have a particularly strong comparative economic position. The 1982 Census of Agriculture showed Middlesex County to have an average value of production per acre of \$825, which is 400 percent greater than the national average and 150 percent greater than the State average. The Census does not take its survey to the Township level. Nevertheless, it is clear that Cranbury Township's farmland shares the wealth of Middlesex, since Cranbury's land, which consists predominately of prime agricultural soils,

^{*} A list of 172 agricultural support services was prepared by central New Jersey's farmers. A summary and map locating these businesses appears in "Agriculture Retention in Hunterdon County," produced by the Middlesex Somerset Mercer Regional Study Council, Inc. for the Hunterdon County Agriculture Development Board and the Hunterdon County Planning Board, July, 1983, pp. 53-54.

represents twenty percent of the County's total. This suggests that, if agriculture can survive anywhere in the nation, it can survive in Cranbury Township, provided that the land base remains available to agriculture.

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This report would be remiss if it did not counter Mr. Hunter's specific evidence showing the decline of Cranbury's agriculture.* By using the N.J. Motor Vehicle data, the only statistical information available at the Township level, Mr. Hunter describes a decade of decline between 1974 and 1984. He specifically refers to reduced potato acreage, the reduced use of irrigation, and rapidly aging farmers. As discussed below, a closer examination of the Motor Vehicle Data does not support the trends he cites.

The potato situation will be examined first. It is true that Cranbury is part of an historic potato producing region, but actual numbers on potato acreages are not available prior to the early 1970s, when the Motor Vehicle Data was first tabulated. Consequently, it is difficult to assess how much of a decline in potato acreage, or net potato production for that matter, actually

^{*&}quot;The Impact of a Selected Residential Development on Agriculture in Cranbury Township" by John M. Hunter, Professor Emeritus in Agricultural Policy, Rutgers University, for Cranbury Land Company, June, 1985, pp. 1 - 13.

has occurred. To make his point, therefore, Mr. Hunter compares 1984 and 1974 Motor Vehicle Data to show a "trend" in the decline of potato acreage: "Competition, cost and changes in the national marketing pattern contributed to the decline of the white potato acreage.

Table 1 demonstrates how this decline persisted through the last decade with acreage dedicated to wheat and white potatoes virtually being cut in half." (p. 8.) He included the wheat acreage because wheat is used in rotation with potatoes.

A review of Table 2 of this report, which includes the Motor Vehicle Data for the interim years between 1974 and 1984, does not, however, reveal a consistent trend in the decline of potato production. It does show a consistent decline in wheat production, possibly reflecting the interchangeability of equipment in the production of wheat or soybeans. But Table 2 also shows 1983 as the year of peak potato production for the decade. Perhaps most important, however, Table 2 illustrates wide variability in reporting, with the total number of acres accounted for in any given year ranging from 3,709 to 5,545. Therefore, the Motor Vehicle Data, even though it is the only township level data available, is not a valid source of information for trend analysis.

Another piece of evidence used by Mr. Hunter to assert that Cranbury's farmers are not moving to increased fruit and vegetable

Table 2

New Jersey Motor Vehicle Data

Reported Potato, Wheat, & Total Acreage

1974 through 1984

<u>Year</u>	Reported <u>Potato Acreage</u>	Reported Wheat Acreage	Reported <u>Total Acreage</u>
1974	880	1609	5329
1975	757	1662	4944
1976	727	1480	4133
1977	748	1448	4128
1978	671	1156	5204
1979	629	846	3790
1980	393	571	3709
1981	930	780	5545
1982	380	771	3900
1983	1045	722	5135
1984	621	729	4488

production is a showing of a reduced amount of land under irrigation. Again relying on Motor Vehicle Data he finds: ". . . the lesser amount of irrigated acres as a result of fewer potato acres being irrigated is notable. This lesser acreage of irrigation would also reflect the growing of fewer vegetables which has taken place over this same time period." (pp. 11-12.).

As shown in Table 3 of this report, a more in-depth analysis of the Motor Vehicle Data shows no such trend. In fact, Table 3 shows that, in 1981, 341 more acres were irrigated than in 1974. The most striking finding of Table 3 is the highly fluctuating number of acres irrigated from year to year. This is probably indicative of both weather conditions and discrepancies in reporting. Even though this data is invalid for trend analysis, it is useful for assessing the magnitude of the factors studied. For example, the 1981 records tell us that 2142, or 42 percent, of the 5146 acres of cropland accounted for in the 1981 report was This means that a substantial amount of Cranbury's irrigated. farmland has access to irrigation for the production of fruit, vegetable, or ornamental production, commodities which Mr. Hunter acknowledges to be profitable.

Unfortunately, there is no valid or reliable statistical evidence to determine how well or how quickly Cranbury's farmers

Table 3
New Jersey Motor Vehicle Data

Reported Irrigated Acres

1974 through 1984

<u>Year</u>	Reported <u>Irrigated Acreage</u>
1974	1801
1975	1736
1976	1221
1977	1384
1978	1156
1979	846
1980	610
1981	2142
1982	495
1983	321
1984	1228

are responding to current market conditions by moving to the production of higher valued crops. There is some anecdotal information available from the County Agent and other agricultural observers that suggests perceptible increases in the production of higher valued crops. And the Motor Vehicle Data does reflect a slight, steady increase in fruit vegetable, and ornamental production between 1980 and 1983, but the 1984 figures for this type of production are slightly lower than those of 1983.

It should be noted that a shift from soybeans or grains to fruit, vegetables, or ornamentals should not be expected to occur overnight. The grain and bean market did not take a consistent downturn until 1982. Farmers with outstanding loans on grain equipment may be forced to continue in grain production for several years, simply to maintain adequate cash flow. It should also be noted that a large-scale widespread interest in investing in the production of higher valued crops, either by existing farmers or newcomers, is unlikely so long as the long-term future of farmland within the Township remains uncertain.

Cranbury's Farmers

To support the scenario of a deteriorating condition of farming, Mr. Hunter also cites an alarming increase in the age of Cranbury's farmers: "In 1974, it (the average age of farmers) was

52 years of age, and in 1984, was 58 years of age, a six-year increase in one decade."(p. 10). Table 4 of this report shows the misleading nature of these figures. First, the age information is not based on 100 percent response. In 1974, 77 percent of the people reporting responded to the question. In 1984, only 57 percent of the farmers responded. Second, the question is asked only of the people who apply for the farmer's license. The age of other family members or partners is not asked and, therefore, not included, in the calculations. Third, the average ages for each year do not reflect a trend but rather a seasaw. In 1974, for example, the Motor Vehicle Data calculates the average age at 52.8. Five years later, in 1979 the average age was up more than 7 years, to 60.2. Two years later, the calculated average age dropped by six years, only to rise again, to 58.1 by 1984.

Furthermore, the Motor Vehicle Data conflicts with the U.S. Census of Agriculture age figures. The Census reported an average age of farmers for Middlesex County of 54.8 years in 1974. The figure dropped to 53.9 years in 1978. In 1982, the average age for the County's farmers was listed at 54.7, slightly less than the figure for 1974. Admittedly this is County, not Township, data, but there is no evidence that Cranbury's farmers are significantly older than those of the rest of the County.

This is not to say that the Township's current farmers are

Table 4

New Jersey Motor Vehicle Data

Reported Farmer's Average Age and Number Reporting

1974 through 1984

<u>Year</u>	Number of Farms	Average <u>Age</u>	Number Farmers Answering Age Question
1974	35	52.8	27
1975	33	56.3	24
1976	35	52.8	27
1977	38	56.5	27
1978	34	57.0	26
1979	35	60.2	25
1980	31	55.0	20
1981	34	54.1	25
1982	29	54.3	21
1983	31	55. 7	19
1984	30	58.1	17

not aging; obviously, they are. But new generation farmers exist as well.

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Working with the County Agent and local farmers, MSM, in its study of agriculture for Cranbury Township in 1982, found that approximately one-third of the current 31 farmers have relatives who are interested in continuing farming operations and that all but one of these families had made recent, major investments in their farm operation.*

Behind the concern about the age of farmers is the fear, or contention, that no one will be left to farm the land that public policy has protected. First, however, must come the question of how many farmers are needed. If, in fact there are only ten farmers remaining in Cranbury in 20 years, will there be an excess of farmland? Likely not. Cranbury's agricultural zone contains roughly 3,000 acres. If the land were evenly divided among the ten remaining farmers, each would farm 300 acres. This is a very healthy sized farm for nearly any kind of agricultural activity. It is more likely, however, that there will be strong competition for land between future farmers of this area. In fact, this is the current situation. Based on rental rates for farmland in and

^{*} Middlesex Somerset Mercer Regional Study Council, Inc.
"Agricultural Retention in Cranbury Township: A Report to the
Cranbury Township Committee," Princeton, N. J., March, 1982, p. 8.

around Cranbury, there appears to be a shortage of land for the existing number of farmers. Competition for land among farmers is at an all-time high.

Table 5 illustrates this point. In 1981, based on reports by the County Extension Agents, farm rental rates in Middlesex County were among the highest in the State. In 1984, rents in Cranbury continue at a premium, running, according to one farmer in the Township, from \$100 for non-irrigated land to \$150 for land with irrigation, quite in keeping with the estimates for Middlesex County in 1981 This compares to rents of \$30 or \$50 per acre (\$100 for irrigated land) in most other parts of the State.

Land Ownership Patterns

Mr. Hunter's final evidence denoting the deterioration of agriculture is the farmland ownership pattern (p. 9). He is correct in his assumption that more than 50 percent of Cranbury's farmland is owned by non-farmers. MSM's 1981 survey found that only 33 percent of the land is owned by those who farm it. In other works in central New Jersey, MSM found 33 percent to be a representative proportion of farmer-owned land.* The problem, in

^{*} See Middlesex Somerset Mercer Regional Study Council, Inc.
"Agriculture Retention in Hunterdon County," Princeton, N. J. July,
1983, pp. 24-38 and "Agriculture Retention in Washington
Township," Princeton, May, 1984, pp. 10-12.

Table 5

Comparative Farm Rental Rates by New Jersey County

1981

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	Estimated Average
County	Farm Rent (Per Acre)
Atlantic	\$ 30 - 75
Bergen	
Burlington	25 - 50
Camden	30 - 100
Cape May	20
Cumberland	40 - 100
Essex	
Gloucester	0 - 100
Hunterdon	35
Mercer	N. A.
Middlesex	75 - 200
Monmouth	80 - 90
Morris	0 - 25
Ocean	
Passaic	
Salem	35 - 150
Somerset	20 - 40
Sussex	6 - 20
Union	
Warren	30 - 35

Source: Jones, Anne. Interviews with County Agents for MSM Regional Study Council, Inc., Princeton,

N. J., Unpublished Data.

Mr. Hunter's words, "presents a planning dilemma: the agricultural and ownership purposes are in conflict." (p. 20). This is an accurate assessment. It is also the precise reason for the need to adjust planning and zoning regulations for the survival of agriculture. If the free market is permitted to mingle with land use regulations that favor non-agricultural development, farmland will continue to disappear.

In terms of agricultural viability, however, there is only one critical component to the land ownership pattern — the effect on farm management. If landowners in Cranbury behave as landowners elsewhere in the State, the majority refuse to consent to long-term leases with farmers. The consequences to agricultural viability are obvious. No smart businessman will place long-term investments on land which he may not have access to next year. Stewardship, including fertilization, liming, and soil and water conservation efforts, is neglected; consequently, profitability suffers. Perennial (and highly profitable) crops, such as strawberries, brambles, and peaches are not an alternative. Again, profitability is diminished.

A landowner's refusal to enter into long-term lease agreements with farmers is, typically, the outgrowth of uncertainty about when, not if, the land can be developed. To turn this situation to the benefit of agriculture, non-farm

turn this situation to the benefit of agriculture, non-farm landowners must believe that agriculture is the primary, or even sole, use to which their land may be put. Herein lies the role of planning and zoning, as discussed in a subsequent section. When landowner's expectations have been changed, non-farmers may be willing to sell their land to farmers or to enter into farm management arrangements that emphasize farm profitability.

Conclusion

Agriculture continues to be a reasonable, profitable use of the land included in Cranbury's agricultural zone. The preceding analysis demonstrated that Cranbury's agricultural conditions rival those of any farming areas in the nation. This is reflected in extraordinarily high average values of production per acre, which, in turn, reflects the area's combination of excellent natural growing conditions and proximity to large, active domestic and export markets. The potential for increased agricultural vitality is great. The area is well-supplied with current and new generation farmers. The one cloud hanging over an otherwise bright future is the uncertainty of whether or not Cranbury will be successful in defending its agricultural zone, thereby insuring an adequate land base for future farmers.

III. Agriculture's Incompatibility with Residential Users

Romantic remembrances of our agricultural heritage shade public perception of modern agriculture as an industrial user of chemicals and heavy equipment. Consequently, most land use regulations repeat the centuries old land use patterns of indiscriminately permitting residential and agricultural users to occupy the same zone. Cranbury's own Shadow Oaks development is an example.

In the last five years, however, conflicts between agriculture and other users have attracted attention -- and calls for change in public policy. For example, several municipalities, including Lawrence Township (Mercer County) and Readington Township (Hunterdon County) have considered ordinances requiring buffering between residential and agricultural use.

The Right to Farm

The State's farmers were the first initiators of major changes in public policy. Coincident with the New Jersey Department of Agriculture's "Grassroots" campaign to develop a statewide farmland preservation program was a campaign by farmers to have the State adopt what has come to be known as "right-to-farm" legislation. In an uncommon show of unity, in meetings throughout the State, the farmers made their plea for protection from non-farm residents who appreciated the form but

not the function of rural New Jersey. All too often, they reported, non-farmers were moving into the countryside only to object, sometimes vehemently and with the threat of a lawsuit, to the noise, dust, smell, and chemical applications of farming. Other common complaints included slow-moving farm vehicles and, occasionally, disagreements over aesthetic issues. A popular (and true) story in Hunterdon County is that of a woman who went to the Township with the request that the Township's public officials order her neighbor (a farmer) to chop down his corn because it obstructed her view.

In 1983, the Right to Farm Act became law. Its purpose was to discourage nuisance suits brought by neighbors against farmers and to shift the burden of proof, away from the farmer, in the event of litigation. Today, many municipalities, including Cranbury Township, have adopted "Right to Farm" ordinances, ostensibly to place non-farmers on notice that noise, dust, and odors are a permissible common byproduct of farming.

Even though these new statutes limit farmer liability if he or she is using "recommended agricultural management practices," State and local statutes do not give farmers blanket protection. According to a recent law review article, courts will continue to consider the land use context when reviewing nuisance complaints against farmers:

"Some types of pollution or other activities constitute nuisances regardless of the predominant land use or the mixture of land uses in the surrounding area. In other situations, however, the predominant land use or the mixture of agricultural and nonagricultural land uses in the surrounding area determines whether a particular activity or side effect constitutes a nuisance. Although courts balance the nature of the wrong against other factors in determining whether any interference constitutes a nuisance, in some cases the surrounding land use patterns shift the weight accorded to different factors in the balancing process.*

From this analysis it appears that the more development surrounding the farm operation in question, the greater the likelihood that a nuisance challenge will be won by the plaintiff.

Protection from Pesticides

The newest legislative forum for resolving conflicts between farmers and non-farmers is the proposed Senate Committee Substitue (September 14, 1984) for S. 1342, amendments to the <u>Pesticide</u>

<u>Control Act of 1971</u>. Included in the amendments is one provision of major importance to agriculture. The amendment would require farmers who apply pesticides by airblast sprayer or aerially, to

^{*}Grossman, Margaret Rosso and Thomas G. Fischer. "Protecting the Right to Farm: Statutory Limits on Nuisance Actions Against the Farmer" in <u>Wisconsin Law Review</u> 1983: 95, p. 105.

notify "persons residing within 500 feet of the proposed target site by first class mail or by hand delivery at least 14 days but no more than 45 days prior to the first application of the calendar year" (p. 6). Additional notifications would be required by mail or hand delivery or telephone no more than 24 hours prior to application to residents within 400 feet (if a buffer no less than 100 feet is maintained) and 300 feet (if a buffer no less than 200 feet is maintained).

As the testimony presented at the State House on September 24, 1984, shows, there are, at least, two respectable viewpoints on this issue. One is the concern of the non-farmer home owner. One such homeowner testifies to her fears of agricultural pesticides and to the ways she would make use of the information on pesticide application:

"Some of the measures I would take are as follows:

- Take my clothes off the line I am afraid to hang out my clothes because I never know when they will come down and spray their crops and I don't want my clothes sprayed.
- 2. Put my children's toys away.
- 3. Close my windows and door in the house.
- 4. Keep my children inside. "*

The other side, of course, is that of the farmer. The

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^{*} Full letter included as Appendix A.

farmer has a difficult task in explaining his viewpoint because it is necessary to introduce the listener to a series of steps that are involved in plant culture and to the complicated nature of integrated pest management. At the September, 1984, hearings, a Cumberland County farmer explained the impossibility and potential negative consequences of the requirement to notify neighbors within 24 hours:

"Integrated pest management is a program whereby we use varieties of a particular vegetable which have been bred to be resistant to disease and insect pests common to that crop. We also use cultural practices such as crop rotation . . . (and) biological controls such as introducing parasitic wasps, viruses and sterilants are used to break the life cycle of pests. The key to I. P. M. is an intensive scouting program where the fields are closely monitored. Egg masses and larvae are counted and their stage of development noted. Moth traps are checked and the fields are monitored for disease pressures. As a last resort when the economic threshhold is reached and all else has failed, we must spray. In most cases we don't spray until the last minute in hopes that we can save that great expense often as high as \$50 per acre. But when we do spray it is almost always URGENT and the crop could be ruined in the time it takes to notify the neighbors. * (Emphasis added.)

Paradoxically, public pressure to increase regulations on pesticide usage is mounting at the same time that state and local efforts to save farmland have increased and farmers are being encouraged to shift to the production of more fresh fruits and

^{*} Full testimony included as Appendix B. The above quote is from pages 2 and 3.

application than soybeans and grain. In testifying on S.1342, the President of the New Jersey Farm Bureau noted the irony:
"This type of legislation flies in the face of the state right to farm and farmland preservation programs, which ask farmers to hang in there — there is a future for agriculture in this state."*

An Opportunity in Cranbury

It has been noted before that it is rare for a Township in central New Jersey to have thousands of acres of essentially uninterrupted prime agricultural soils. Fortunate, too, is the desire of the two key neighboring townships, Plainsboro and West Windsor, to keep their portions of this area open.

Neighboring East Windsor Township's plans for intense development of some nearby land will not affect the agricultural enclave, for it is isolated by wide, thick woods. In terms of agriculture, only Shadow Oaks appears as a blemish in what could, for years to come, be a major, extraordinarily profitable, agricultural center in the middle of New Jerey.

This agricultural ideal can only be met if only extremely modest non-agricultural development is permitted within the

^{*} Full testimony included as Appendix C. The above quote is taken from page 2.

agricultural zone. Were Cranbury to have a different topological

agricultural zone. Were Cranbury to have a different topological makeup it might be possible to "tuck" away some developments within the agricultural zone without impairing the future of agriculture. However, Cranbury, typical of the coastal plains, is essentially flat. To permit any major development within the zone is to court conflicts between farmers and non-farmers and make it all the more difficult for farm production, particularly if the future of Cranbury's agriculture is to lie with horticultural products that require constant protection from pests.

IV. Agriculture's Need for Planning

Agriculture cannot survive in central New Jersey unless it is expressly provided for in planning policies and regulations.

Without specific policies, in times of strong development pressure, farmland will be consumed in a piecemeal, scattered fashion with the development of each tract making it all the more difficult for neighboring tracts to remain in agricultural use.

Some will argue that the marketplace should determine which land is farmed and which developed. This viewpoint carries an inherent opposition to community planning and an overly simplistic model of the forces at work in the conversion of farmland and the concomitant demise of agriculture. Agriculture has special needs, some obvious, some subtle, that are deeply affected by land use policies.

Protection from Incompatible Uses

One of agriculture's needs, protection from incompatible land uses, is a typical function of planning. As discussed at length in the previous section, planning policies typically overlook the incompatibility of agricultural and residential uses, to the detriment of agriculture. The best cure, from an agricultural standpoint, is an ounce of prevention, that is, to exclude, or at least substantially diminish, residential development from agricultural areas. A barely adequate alternative, particularly

in areas of flat, open terrain, is to insist on buffers between the two uses.

Protection from Land Conversion

All of agriculture's other land-use related needs concern the future availability of a stable base of farmland. This need for a stable land base can only be accommodated through regulations that exclude, or substantially diminish, future non-agricultural development in those areas slated for long-term agricultural use. In an unstable land use environment, farmers fall subject to the "impermanence syndrome," a term coined to explain a manager's resistance to investments and decisions for the long-term because of the belief that agriculture is "on its way out." The "impermanence syndrome" becomes a self-fulfilling prophecy, for failure to update the farm operation ultimately results in failure of the farm itself.

Affordable Farmland

Related to the existence of a stable land base is the affordability of farmland. The agricultural industry would be greatly aided by land use policies that discourage non-agriculturally related land speculation. Without speculation fueled by the expectation of eventual development of the land,

land prices would reflect the agricultural value. This is particularly important if a farmer is to remain or become the owner of the land, a management arrangement that farmers tend to prefer -- so long as land prices are reasonable and interest rates are sufficiently low.

Planning for Agriculture

The challenge for communities in central New Jersey is to balance the needs of agriculture against those of other users. In communities where development pressure is strong, it is neither desirable nor possible to protect all farmland. All projected land uses should be accommodated. But the farmland to be retained for long-term agricultural use must be specifically identified and protected. In this process, communities can rely on the most basic principle of land use planning. Based on community goals, the intrinsic suitability of land, present development patterns, and the availability of utilities, communities can determine the best places to build, to retain farms, and to conserve other natural resources. Subsequently, regulations enforcing the plan should be adopted and vigilantly enforced. This approach is the essence of sound planning.

Cranbury's Agricultural Zone

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In 1981, MSM studied Cranbury's land resources and identified two areas that were suitable for long-term agricultural production.* The identification was based on the application of traditional planning criteria to an agricultural evaluation: the best agricultural soil, access to water (through non-public systems), minimal land use conflicts, and an absence of development-leading public investments. The study identified two areas within the Township that would be suitable for long-term agricultural use. The Township elected, in its master plan and subsequent zoning ordinance, to place one of the areas into an agricultural zone. The other area was not selected for farmland retention because that land was needed to meet other objectives.

The techniques and process used by Cranbury Township to develop the current agricultural zone is an exemplary application of sound technical planning principles. The zone addresses all the basic long-term land use-related needs of the area's agriculture.

As discussed in the subsequent section, however, the zone's strengths will be severely eroded if the Township is forced to permit development on two critical tracts therein.

^{*} Middlesex Somerset Mercer Regional Study Council, Inc.
"Agriculture Retention in Cranbury Township," Princeton, N. J.,
1982, Fig. 11.

V. The Effects of Specific Pending Development Proposals on the Future of Agriculture in Cranbury

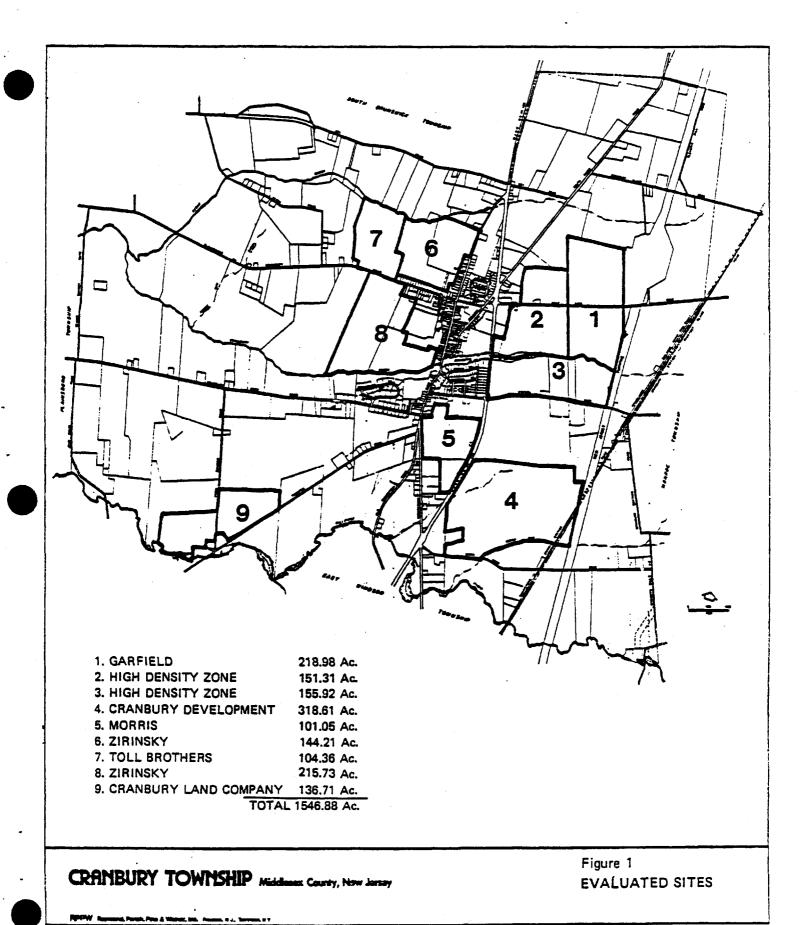
of the pending development proposals before the Township, two would be especially injurious to the future of Cranbury's agriculture: the 104.36 acre tract owned by the Toll Brothers (referred to as Site Number 7 in the Mt. Laurel II litigation) and the 136.71 acre tract owned by Cranbury Land Company (referred to as Site Number 9 in the Mt. Laurel II litigation). "Figure 1" shows the location of these sites. Aside from the actual loss of 150 or more acres of prime farmland in one of central New Jersey's premier agricultural areas, the development of these sites would violate every sound planning principle that is critical to the long-term future of agriculture in this region.

Immediate Impacts

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As Figure 1 shows, both these sites are noncontiguous to the primary built area of the Township. With two minor exceptions, agriculture is in view for as far as the eye can see. Site Number 7 is completely isolated from existing development. A portion of Site Number 9 is contiguous to a small recreational facility and the Shadow Oaks development, a low density residential subdivision of approximately 100 houses. From the viewpoint of farmland preservation, the Shadow Oaks development is a mistake.

Fortunately, it is a relatively small mistake. One that should



not be repeated and certainly should not be magnified, as proposed by Cranbury Land Company.

As mentioned before, the development of these sites would result in the loss of more than 100 acres of prime agricultural land. By way of example, Site Number 9 contains (within five percent error) 79 acres of prime soils and an additional 21 acres of soils that are classified by the Soil Conservation Service as "prime when drained." Together these represent 73.2 percent of the tract. Most of the rest of the land is part of the floodplain and woods that serve as a critical buffer between Cranbury's agricultural zone and the development plans in East Windsor.

Mr. Hunter, in his report for Cranbury Land Company, underplays the loss represented by the development of this land.*
How significant can the loss of 136 acres be? Very. Particularly when both the Cranbury Land and Toll Brothers applications are considered jointly. Both applications involve less than 140 acres apiece. But added together they represent approximately 8 percent of the agricultural zone. In other words, it would take only 12 more applications of similar size before the entire zone would disappear.

Of equal, if not greater, significance is the number of new

^{*} Hunter, John M. "The Impact of a Selected Residential Development on Agriculture in Cranbury Township," June, 1985.

residents that would be placed in the agricultural zone. For the Toll Brother Tract is a proposal to develop 500 dwelling units, 400 single family patios and 100 apartment/condominia. Depending on household size, this development will bring as few as 1,000 and as many as 1,330 new residents into the agricultural zone. constitutes a development of village proportion, and, as discussed at length earlier, one that virtually guarantees friction between the new residents and neighboring farm operators. The figures for the Cranbury Land Company tract are even more alarming. Here, the development would bring up to 1,800 new residents into the agricultural zone. The Cranbury Land application is also of village-proportion. Only 2,000 people currently reside in the entire Township (no more than 300 of them within the Shadow Oaks development). And now Cranbury Land is seeking approval to nearly double the township's population in one of the outposts of the agricultural zone. Together these two developments would bring close to 3,000 people into a current agricultural enclave. damage done would be irreversible, and the Township would be well on its way to complete buildout of the agricultural zone, partly because of the increased difficulty in farming that has been brought about by the presence of so many newcomers.

Long-Term Effects

There are other agricultural and non-agricultural impacts that will be permanently, but not immediately, affected if the Toll Brothers and Cranbury land tracts are developed. First, the developments would extend the periphery of non-agricultural development, making it easier for other landowners to justify development of their land because other development is already there. This circular argument, with specific reference to Shadow Oaks, has already been used by Mr. Hunter to justify the Cranbury Land Company development (p. 4).

Second, the "impermanence syndrome" described earlier will be exacerbated. The development of these tracts will reinforce the suspicion that regardless of the so-called agricultural zone, the development of this area is a matter of when, not if. So long as development pressure within central New Jersey remains strong, most farm operators will assume that "when" will be soon.

Consequently, investment in agriculture will diminish. So will profitability. And strong proof will be available to show that agriculture is no longer viable in Cranbury.

A related effect will be the consequence on land values.

Owners of land within the agricultural zone will have good reason to maintain their expectation that, sooner or later, their land

will be developed. Stability in land prices will be impossible to achieve. A handful of landowers will benefit enormously. The eventual demise of agriculture is certain.

Finally, the development of these two parcels violates several fundamental land use principles. Foremost, is the casual abandonment of the need to match the change in use of land with community goals, intrinsic qualities of the land, existing land development patterns, and existing public investments in infrastructure. There are other areas of the Township that are better suited to accommodate development, but none as well suited for long-term agricultural production. Second, is the negative precedent set. Owners within an agricultural zone, well-founded in traditional planning principles, have been given a variance with major consequences. Others will now feel justified -- and with good reason -- in asking for similar variances. Third, approval of the applications places the speculative financial interests of a handful of present-day landowners over the natural resource needs of current and future generations.

Conclusion

Although the development of the Toll Brothers and Cranbury

Land tract would result in several hundred low and moderate income housing units, it will do so at the expense of the future of

agriculture in Cranbury. So long as other means for meeting the Township's Mt. Laurel II obligation are available, these two tracts should be dropped from consideration. If they are not, Cranbury's agricultural zone will be impaired beyond recovery.

A Special Note on Site Number 6

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The opening statement of this report noted the need to proceed with caution in the development the Zirinsky property, labeled Site Number 6 on the preceding Map. Ideally, this tract would remain in long-term agricultural use, for it, too, consists of a sizable chunk of very valuable farmland within the Township's agricultural zone. This parcel's location, at the end of the Village and the beginning of the agricultural zone, does, however, make its conversion sensible and less critical to the protection of Cranbury's agricultural zone than the development of Sites 7 and 9.

Nevertheless, if the Zirinsky property is necessary to meet the Township's Mt. Laurel II obligation, the development should not take place without special precautions to diminish the effects on the remainder of the agricultural zone. The scale of development should be relatively small, certainly nothing of "village-proportion," such as the original proposal to build 1,142 units at eight units to the acre. Special care should also be

taken regarding proposals to construct a new road through or near this site.* The construction of a new road will increase development pressure on the farmland that lies to the west and south. Special steps should be taken, therefore, to design the road, to the maximum extent possible, to channel access away from the agricultural zone. In addition, the development closest to the agricultural zone should be sparsely populated, with a large, natural buffer between the houses and the farmland. The lower density, combined with the buffer, will minimize friction between the new residents and farm operators. Finally, the Township will have to utilize the strongest planning and zoning tools within its powers to make landowners realize that development of the Zirinsky tract does not make the remainder of the agricultural zone fair game for development.

^{*} Both Cranbury's Compliance Plan and the Master's review of the Compliance Plan discuss the value of removing traffic from the village by constructing a new road in or close to Site Number 6. See the "Mount Laurel II Compliance Program for Cranbury Township" by the Township Committee and Planning Board, December, 1984, and "Cranbury Township's Mount Laurel II Compliance Program: Review and Recommendations" by Clarke & Caton, April, 1985.

Appendix A

Letter from Michelle Chiosso, Maple Shade, New Jersey

in Testimony regarding S. 1342
before the
Senate Energy and Environment Committee
September 24, 1984
Rm. 114, State House Annex
Trenton, N. J.

52 LANC, ROAD
MAPLE SHADE, NJ DBOSS
SEPT. 10, 1984

Dear Senator Dalton and Committee Members,

I AM writing in regard to the S1342 Lesnier Bill I CANNOT be present on September 24 because I have small children at home, but I do want or Opinions Know as to why I Amin favor of this but

I live in Maple Shade and the Area directly or a my home is used as farm kind. I realize that the farmer has to spray his crops I am not asknow that he stop, but I am asking for a warning a when he is going to spray the crops, so fact I can take some prevention. Some of the measure I would take are as follows:

itake my clothes of the line - I am Afra. of The hang out my clothes because I never know when they will come down And spray the incrops and I don't want my clothes spray

2. put my childrens to ys AWAY

3. close my windows And door in the house 4. Keep my children inside.

I don't feel that this is to much to ASK AND this bill will give me peace of mine AND I don't think that it will hart the farmer 147x Thank-Youvery much michelle Chiosson

Appendix B

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Memorandum from Joseph C. Shoemaker, Cumberland County Farmer

in Testimony regarding S. 1342
before the
Senate Energy and Environment Committee
September 24, 1984
Rm. 114, State House Annex
Trenton, N. J.

TO: . "EMBERS OF THE SENATE EMERGY AND EMMIRCHMENT COMMITTEE

FROM: JOSEPH C. SHOEMAKER, JR, CUMBERLAND COUNTY FARMER AND AGRI-RUSINESSIA

DATE: SEPTEMBER 24, 1984

SUBJECT: PUBLIC HEARING ON S-1342 ON SEPTEMBER 24, 1984

MY NAME IS JOE SHOEMAKER AND I REPRESENT THE THIRD GENERATION OF MY FAMILY LUVOLVED IN AGRICULTURE IN SOUTH JERSEY AND, IF REASON PREVAILS HERE TODAY, IN TWO CHILDREN MAY BE FREE TO ALSO CHOOSE AGRICULTURE CAREERS IN SOUTH JERSEY.

I DIFFERENTIATE PETTEEN WORTH AND SOUTH JERSEY PECAUSE WE DO LIVE IN 2

DIFFERENT VORLOS. WE ARE CONSTANTLY REMINDED BY THE MORTHERN MAJORITY THAT WE IN THE SOUTH EXIST AS A GRADY SOURCE OF TAX DOLLARS TO BE DUMBED ON OF JOINTH THE MORTH WHILE THE MORTH PROVIDES A PEADY SOURCE OF REFUSE TO BE DUMBED ON PROJECTS IN THE SOUTH.

SHOW TOTAL CROP ACREAGE IN NEW JERSEY TO BE 576,650 WITH A TOTAL PRODUCTION VALUE OF OVER \$400 MILLION AND A HIRED FARM LABOR PAYROLL OF \$100 MILLION.

BESIDES FARMING 160 ACRES MYSELF 1 ALSO OWN AND OPERATE A CUSTOM APPLICATION PRISINESS APPLYING AGRICULTURAL MATERIALS BOTH BY AIR AND GROUND ON APPROXIMATELY 30,000 FARM ACRES A YEAR. IN OUR 8 YEARS OF CUSTOM FARM SER ICE, I HAVE GOTTEN TO KNOW THE IMIQUE CHARACTER WHO IS OUR SOUTH JERSEY FAMILY FARMSER.

MUMBER ONE, HE AND HIS FAMILY ARE WORKAHOLICS, HARD AT THEIR LABORS FROM WELL REFORE DAWN TO WELL AFTER DARK 7 DAYS A WEEK. NO - NOT OFFTE SEVEN CAYS -SINCE FOR THE MOST PART, THEY ARE FIRM IN THEIR RELIGIOUS RELIEFS AND TAKE TIME, MHEN THERE ISN'T ANY, TO GIVE THANKS TO THEIR OPEATOR FOR THE PLESSINGS OF THE SUM, THE RAIN AND THE LAND THEY ARE PRIVILINGED TO MORK. THEY ARE TRUE ENVIRONMENTALISTS AND HAVE BEEN SO, LONG BEFORE IT PECAME SUCH A POPULAR AND FASHIONAPLE MOVEMENT. TOPAYS FARMER IS AN ENTOMOLOGIST - HE MUST BE ABLE TO PECOGNIZE THE LIFE CYCLES OF THE INSECTS ON HIS FARM SO HE CAM PROTECT THE PEMERICIALS AND ATTACK THE PESTS AS METDED. HE IS A FLANT PATHOLOGIST - HE MUSTINE APLE TO RECOGNIZE THE DISEASES PARTICULAR TO HIS GROPS AND KNOW THEIR REPRODUCTIVE CYCLES SO HE CAN APPLY CONTROL MEASURES WHEN THEY ARE MEEDED. THE IS AN AGROMOMIST - HE MUST KNOW HOW AND WHEN TO TILL THE LAND TO PRESERVE THE SOIL FROM EROSION: THEN AND THAT TO PLANT: FOW DEEP AND HOW WIDE AND WHAT POPULATION DENSITY TO FLANT: HOW AND WHEN TO FERTILIZE AND LINE AND WHAT AMALYSIS TO USE INCLUDING TRACE FLEMENTS: HOW, WHEN AND WHAT "EED CONTROL METHODS TO USE: HOW AND MHEN TO CHUTIMATE AND ARRIGATE: WHAT IS THE BEST TWO

FOR EACH JOB. HE MAKES THESE DECISIONS DAILEY, ALL DIFFERENT, FOR A VARIETY OF GROPS FROM APPLES TO ZUCHINI, AND ANY ONE DECISION COULD MEAN THE LIFE OR DEATH OF THE GROP. HE IS AN ENGINEER AND INVENTOR - GROWING SUCH A VARIETY OF GROPS THAT THE PROPER TOOL TO DO THE JOB IS CETEN NOT AVAILABLE FROM THE MAJOR MANUFACTURES SO HE OFTEN DESIGNS AND RULLDS HIS OWN. HE IS A MARKETING EXPERT AND CLMANGIER - HE MUST KNOW WHEN AND WHERE TO SELL TO SET THE BEST PRICE AND HOW TO LOCK IN AN ACCEPTABLE PRICE THROUGH HEDCING, FOREWARD PRICING AND OTHER CONTRACTS. AND IF THE DECENT ATTACKS ON HIS PEACEFUL ACRARIAM EXISTANCE FROM THE PURPAHORATIC MOMOTERS ON THE STATE.

IN 1980 THE DECRLE OF THIS COUNTRY MADE AN IMPORTANT STATEMENT WHEN THEY ELECTED RONALD REAGAN PRESIDENT. WE SAID ME WANTED LESS COMPRIMENT INTERFERENCE IN OUR LIVES AND RELIEF FROM THE DUREAUDRATIO MOMSTER THAT IS STRANGLING US. IT WAS A CLEAR MANDATE TO DO AWAY WITH PAD LEGISLATION AND STREAMLINE THE SYSTEM.

THE N.J. PESTICIPE CONTROL CODE (M.J. ADMINISTRATIVE CODE TITLE?)
CHAPTER 30) WAS EXTENSIVELY REVISED IN 1982 AND IS CHRRENTLY IN THE PROCESS
OF FURTHER REVISION. AT HAS SECTIONS WHICH CORRESPOND TO AND ADDRESS THE
PROPLET'S COVERED IN EVERY SECTION OF THE PROPOSED BILL. USE THE CODE!
REVISE IT AS MEEDED AND EMPORCE IT: WE SHOULD NOT AND INDEED CANNOT
TOLERATE THE ARUSE OF PESTICIDES ANY MORE THAN HE CAN TOLERATE THE ARUSE
OF LEGISLATIVE POWERS FOR PERSONAL GAIN AT THE EXPENSE OF THE PUBLIC.

THIS BILL AS INITIALLY DRAFTED SHOWED A REMARKABLE IGNORANCE OF THE VERY INDUSTRY IT IS SEEKING TO REGULATE: IT WOULD COMPLETELY WIFE OUT THE EFFORTS MADE OVER THE LAST FEW YEARS BY BUTCERS AND OTHER RESEARCH EFFORTS TO LIMIT PESTICIPE USE. Mr. LESMIAK AND THE DRAFTERS OF THIS BILL HAD MEYER HEARD OF 1.P.M.

PARTICULAR VEGETABLE WHICH HAVE BEEN TRED TO BE RESISTANT TO DISEASE AND INSECT PESTS COMMON TO THAT CROP. WE ALSO USE CULTURAL BRACTICES SUCH AS CROP ROTATION AND CULTIVATION TO MINIMIZE PEST PRESSURES. BIOLOGICAL CONTROLS SUCH AS INTRODUCING PARASITIC WASPS, VIRUSES AND STERILANTS ARE USED TO BREAK THE LIFE CYCLE OF PESTS. THE KEY TO 1.P.M. IS AN INTENSIVE SCOUTING PROGRAM WHERE THE FIELDS ARE CLOSELY MONITORED. EGG MASSES AND LARVAE ARE COUNTED AND THEIR STAGE OF DEVELOPMENT NOTED. MOTH TRAPS AGE CHECKED AND THE FIELDS ARE MONITORED FOR PISEASE PRESCURES. AS A LAST BESORT WHEN THE ECONOMIC THRESHHOLD IS REACHED AND ALL FLSE HAS FAILED.

HOPES THAT WE CAN SAVE THAT GREAT EXPENSE OFTEN AS HIGH AS \$50 PEP ACRE.
BUT WHEN WE DO SPRAY IT IS ALMOST ALWAYS URBENT AND THE CROP COULD BE
RUINED IN THE TIME IT TAKES TO NOTIFY THE NEIGHBORS. IN THIS NEW
FROFOSAL, I.P.M. IS MENTIONED FREQUENTLY BUT MR. LESNIAK STILL SHOWS HE
IS IGNORANT OF ITS WORKINGS.

WHILE GIVING LIE SERVICE TO 1.P.M., HE IS EFFECTIVELY DENYING THE USE OF THE MERY TOOL THAT MAKE I.P.M. POSSIDLE - THE ACCIONATIONAL ALBORAGE. ST THE ARE WAITING TILL THE ARSOLUTE LAST MIMUTE TO SPRAY IN HOPES OF AVOIDING IT ALTOGETHER THE OFTEN DON'T HAVE TIME TO COVER THE THREATENED ACRES BY GROUND SPRAYING. THE AIRCRAFT AT OFTEN A FEW MINUTES NOTICE CAN SUCCE. DOWN OVER THOSE FIELDS AT 100 MPH AND GET THE JOR DOME WITH ITS MORE EFFECTIVE SPRAY DISTRIBUTION GIVING THOROUGH COVERAGE TO EVEY THE AND SECTION OF THE LEAVES WHICH IS NECESSARY TO CONTROL MANY PESTS SUCH AS APPLIES AND "OST DISEASES. AM AIRCRAFT AT 100 MPH USING A 401 SWATH WIDTH GAT SPREY A 30 ACRES FIELD IN 15 MINUTES WHILE THE LOW PRESSURE ROOM SPRAYER WHICH AVERAGES 6 MPH MITH A 201 4 301 SWATH WILL TAKE OVER 5 HOURS TO SPPAY THE SAME FIELD. COMMON SENSE WOULD SHOW THAT THE ENVIRONMENT IN AND ARCUND THAT FIELD AND CERTAINLY THE APPLICATOR WOULD BE SHBUECTED TO THAT PESTICIDS FOR 5 HOURS MHILE THE EXPOSURE TO THE EMVIRONMENT WITH THE APPIAL APPLICATION IS ONLY 15 MINUTES AND THE APPLICATORS EXPOSURE IS MINUTED SITTE HE IS DEAMING THE SPRAY RELOW AND REHIND HIM AT THE RATE OF 100 MPH. 147 IS ALSO A FACT THAT OPTIMUM COMOLTIONS FOR SPRAYING EXIST FOR A VERY SMORT THE ON ANY CLUEN DAY AND IT IS MORE PROPABLE THAT GROWN APPLICATORS WOLLD BE FORCED TO SPRAY UNDER LESS THAN OPTIMUM CONDITIONS. HARER EXTREMELY MED CHELD CONDITIONS, HE MIGHT NOT BE ABLE TO SPRAY AT ALL. I BAYE USED A 30-ACRE FEGURE IN THIS EXAMPLE BUT FOR THE MOST PART IF OUR GROWERS HAVE A PEST: EMERGENCY THEY WOULD NEED SEVERAL TIMES THAT ACREAGE SPRAYED AND, IS REGITTED TO DO IT BY GROUND, WOULD MEED A FLEET OF SPRAYERS OR LOCKE A LIBER PORTION OF THE CROP. IT IS A SIMPLE MATTER OF LOGISTIES! ONCE ACAIM THE GROWER WOULD BE FORCED TO SPPAY ON A FIXED SCHEDULE INCURRING UNDEEDED EXPENSES AND DUMPING EXCESS PESTICIDES IN THE EMPIROPMENT. AND THE LAST ITEM IN THE PROPOSED BILL, A ONE TIME "TOKEN" SWEETMER OF \$75,000 FOR I.F.". WOULDWIT EVEN COVER THE EXPENSES OF INGREASING THE PROGRAM BY 2 YOPE FIELD

TAM NOT SAYING THERE ISN'T ROOM FOR IMPROVEMENT IN THE MOE OF PESTICIDES. BUT A RADICAL FEW AND A MISINFORMED MEDIA ARE TRYING TO CONVINCE THE PUBLIC THAT WE ARE POISONING THE PEOPLE OF THIS STATE IN EPIDEMIC PROPORTIONS.

KNOWS THAT THE FIELDS WILL BE SPRAYED FROM TIME TO TIME. THEY BONIT MEED A LETTER TO TELL THEM THAT. A MERY SMALL MINISTER OF PEOPLE PROMEST TO BE NOTIFIED AND WE HONOR THAT PEOPLEST. IF A CROWER MEETINGS TO SIME MOTIFICATION OR PESTICIDE INFORMATION PEOPLESTED, A SIMPLE SALE TO YOUR LOCAL BOARD OF HEALTH AND THE DEP MILL BET SHIRL HOME, PLACE OF PUSINESS, AND RECORDS. YOU DON'T MEED THE LESMIAN PILL: AND AS FOR SIMILS THEM ALL THE KNOWN AND MECONDS. WHEN INFORMATION ON THE MATERIALS TO BE USED, IT THEY READ THE DAPER, WATCH T.V., OR LISTEN TO THE MADERS KNOW THEY ARE DOOMED!

AS I SEC IT THE MEY TO THE WHOLE PROBLET IS EDUCATION. STATE OF BLESCED LITH A STABLE SHEELES OF BURNES, I SURGEST THEY BE USED FOR THIS PURPOSE. DOINT GIVE ME A TOKEN RECEIVED FOR SHORTLY ACTED RECEIVING IT I WOU'T KNOW WHERE IT WENT. ALTHOUGH I KNOW YOU WOULD REMIND WE ACCOUNT ELECTION.

THE THAT I RECEIVED IT. TAKE SOME OF THOSE FUNDS AND GIVE THEN TO THE DEP AND BOARD OF HEALTH EARMARKED FOR AGRICULTURAL PESTICIDE (DUCATION IN THE SCHOOLS AND LABOR CAMPS. AND BY ALL MEANS EDUCATE THE MEDIA. A DOLLAR SPENION EDUCATION WILL COME MACK TO YOU MANY-FOLD IN THE ENTURE. ALSO A LARGE PORTION SHOULD GO TO RUTCEDS RESEARCH AND DEVELOPMENT TO DURSUE RETTER ALTERNATIVES TO RESTICIDES AND CAFER USES OF MECESSARY AGRICULTURAL CHEMICALS. ALSO GIVE THE CHEMICAL COMPANIES ENCOURAGEMENT TO CREATE SAFER MORE SPECIFIC PESTICIDES FOR USE THEM THEY ARE MEDDED. YOU HAVE THE OPPOPHINITY TO CONTRIBUTE SOMETHING LASTING TO THE STATE OF MEW JEDSEY. SELTE IT:

IN CLOSING, AND LIKE TO INVITE OUR MODTHERM COURING TO COME TO COMBINE OF COMMITY AND VICIT OUR LUSH AND REAUTIFUL FARMINGS AND YOUR MUTCHES RESEARCH.

CENTER. VISIT OUR BEAUTIFUL LAKES, STOCAMS AND MODELANDS FILLED SITH.

WILDLIFE OF ALL KINDS. AND MAYNE, JUST MAYNE, WE ALL MIGHT BE LUCKY AND YOU MIGHT GET TO WITNESS THE GRACE AND REQUITY OF AN AERIAL APPLICATOR.

SWOOPING LOW OVER THE FIELDS SO ME ALL CAM ENJOY A ROUNTIFUL HARMEST AND HAVE FRESH OUALITY PRODUCE TO GRACE OUR TARLES.

COME SEE US. WE HAVE A LOT TO OFFER AMP WITH ANY LUCK WE'LL BE ABLE TO OFFER IT FOR A LONG TIME TO COME.

Greek C. Shoemaker, JP.

RD 1, PCX 444

BRIDGETON, N. J. 08302

Appendix C

Statement of Walter Ellis, President, New Jersey Farm Bureau

in Testimony regarding S. 1342
before the
Senate Energy and Environment Committee
September 24, 1984
Rm. 114, State House Annex
Trenton, N.J.



168 West State St., Trenton, New Jersey, 08608 tel. (609) 393-7163

TESTIMONY

OF

WALTER ELLIS, PRESIDENT

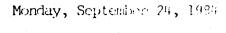
NEW JERSEY FARM BUREAU

ON ·

S-1342 - PROPOSED AMENDMENTS TO THE PESTICIDE CONTROL ACT

to

SENATE COMMITTEE ON ENERGY AND THE ENVIRONMENT





OVERVIEW

This legislation would dictate a series of changes to the state pesticide code that will directly and indirectly affect the practice of farming in the state. Farmers throughout the state have been greatly concerned since the bill was first introduced last fall and re-introduced in February. The sponsor released an amended version on September 14, just a few days ago, which changed some of the specific details. We have reviewed the proposed committee substitute, and remain opposed to the bill's passage for a variety of reasons. We believe the changes being proposed for the pesticide code in this bill are prompted by fears and suspicions rather than documented evidence. The existing regulatory process is, in our opinion, flexible and responsive enough to address questions about pesticide use in New Jersey. As an example of this, both the DEP and EFA are developing regulations regarding further precautions for farmworker safety. This illustrates how the current process can address changing circumstances and why this bill is not needed.

We are greatly concerned about the prenotification section of the hill because of the burden it will impose on growers and the likelihood that such notices will create a sense of danger where none exists. Direct contact on people or property of posticide material is presently prohibited by state regulations. Most if not all the persons to be notified under this section of the bill are not affected by the farm use of pesticides. Thorough and vigorous enforcement of existing regulations should be the means of isolating target areas from any undesired misapplication of pesticide material.

Furthermore, we believe that we in agriculture have a good track record with the use of these materials when all things are considered. Only 5 percent of the complaints of code violations received by the Bureau of Pesticide Control last year half with agriculture, and most of those were rectified quickly. There is

OVERVIEW (Continued)

always room for improvement and we support the efforts of the Extension Service in promoting the safe use of these products which are vital to produce high quality crops for a very competitive marketplace. This bill, by proposing new controls, would in effect be penalizing all farmers who apply pesticides by air or airblast sprayer regardless of their experience. This also shows how the existing rules are more equitable, since they investigate complaints to hear both sides of the argument before recommending fines or license suspension.

In addition to what we see in this bill as unnecessary duplication and a lack of justification, we urgently petition this committee to consider how these new requirements would be interpreted by the farming community. Now is not the time to heap regulations on New Jersey farmers. Agriculture in the state and throughout the nation is facing a crisis of declining not income. Many good farmers are struggling to make ends meet, because of poor commodity prices and high interest rates. What kind of a future do they face in New Jersey, if they see more and more controls being instituted as they work long hours just to pay their bills. This type of legislation flies in the face of the state right to farm and farmland preservation programs, which ask farmers to hang in there - there is a future for agriculture in this state. We are not suggesting that pesticide rules should be reviewed because of this or that farming will cease if this bill passes, although to some degree that may happen. Rather, it is a matter of sending the wrong signal at the wrong time.

Let me close these opening remarks by stating we support the regulation of pesticides and pesticide use. We agree with research and development of biological controls and are proud of the state's Integrated Pest Management program.

I have been a participant myself for the past seven years. Farmers know the cost and toxicity of these materials. Discussion of "alternatives to pesticides" is fine - a laudable goal - but please bear in mind that abrupt changes in either the availability of certain products or the manner in which they are used can have adverse economic consequences in farming. We sincerely believe the proponents of this bill have not made their case and suggest that their energies be channelled into this existing regulatory structure.

PESTICION USE IN AGRICULTURE

Permit me please to offer a few comments from my perspective about pesticide use in farming, as I am sure others will speak from their particular point of view. Pesticides, which can also be termed crop protection chemicals, are to agriculture what medicines are to human health. Used according to prescription they cure or control, used to excess they may cause injury.

Every aspect of pesticide use and regulation has changed significantly in the past 30 years. By comparison to the 1950's today's pesticides are:

- less persistent, breaking down into non-toxic substances more quickly
- more effective in smaller quantities, products are used by the ounce now where they once were used by the gallon
- applied with more diligence and concern for safety
- more strictly regulated by federal and state laws.

A number of the positive changes are the result of constant research and a desire to improve the risk/benefit relationship of all agricultural chemicals. There are risks to those who handle these materials, as farmers well know because he or she and some family members often are directly involved with them.

PESTICIDE USE IN AGRICULTURE (Continued)

The decision to use crop protection chemicals to control insects, disease, and weeds is not made by the farmer alone. Probably the most significant single factor is consumer demand. Growers must meet the standards of the marketplace at competitive prices, or risk letting the crop go to waste without being paid. The profit margin for farmers today is so slim they cannot afford to apply pesticides unless they are certain the increased productivity or quality of produce will pay for the costs. A farmer has no control over weather or the market but technology has provided a tool that can be useful in curtailing crop loss and hence helps to improve his profitability.

REVIEW OF THE BILL

We are concerned about a number of areas in the bill, some of which we would call your attention to:

SEC. 7a. - PRENOTIFICATION: The sponsor shocked the farming community with the original terms of the prenotification section (7 day minimum, all persons within 1,000 feet for each application, etc.). The revised version remains objectionable for a variety of reasons. Currently, it is a violation to encore any non-target site property and certainly any person to a pesticide spray. The farm use of pesticides do not affect these residents. Receiving a notice of appraying may unnecessarily arouse fears, rather than promote understanding.

Notifying surrounding residents may be costly and impractical as well. Furthermore, rural area residents are familiar with farm practices. A serious drawback to this requirement is that it represents a new chore for questionable benefit that may itself become the basis of a lawsuit against the farmer, with associated costs of legal defense and so forth.

REVIEW OF THE BILL (Continued)

The posting responsibility has similar defects. Beyond those draw-backs, we do not want people near farm fields anyway! Farmers in New Jersey already face serious problems from farm trespass and vandalism. Legislation was approved cardier this year which makes it unlawful for anyone to be present in farm fields, orchards, bogs, or fenced pasture. Any obligation to have a sign posted, at the pain of a \$500 fine per day, suffers from the problem of having the signs deliberately torn down. Since this bill makes the fines payable to the complainant, real incentive would exist to remove these signs. Our experience with "no trespassing" signs proved this.

SEC. 6 - AERIAL APPLICATION: Subsection 6a(4) would ban the aerial application of pesticides in areas having less than 10 contiguous acres, which we have to assume includes farm fields. This would cause a real hardship for certain vegetable fields or other small, non-contiguous fields that may be using helicopter for example. We do not see any justification for this and further demonstrates the interference this bill could create for current farm practices.

In addition, the other restrictions on aerial applicators appear to be an overlap with FAA regulations. Further, farmers utilize the services of aerial applicators who may no longer continue doing business in the state because of the "hassle factor". Increased costs and a loss in application efficiency would result in that event.

SEC. 13L - CONTAINER DISPOSAL: We understand that representatives from the D.E.P., Extension Service, Department of Agriculture and others have already developed draft rules for the safe disposal of pesticide containers. Once again, another example of how this bill is not needed.

SEC. 14 - AGRICULTURAL WORKER SAFETY: Both the D.E.P. and representatives of farmworker organizations have been advised of the farm community's interest in developing an information disclosure and education program for farm workers. The D.E.P. draft revised rules, released several months ago and to be made the subject of public hearings in a few weeks, address several components that we can support. Also, the E.P.A. has announced an advance rule-making notice in this same area. Clearly, this is an area where rules are in the making that preclude the need for this bill.

Further, this type of effort should involve the existing intergovernmental migrant education task force. Farmers will do their part and cooperate with practical, meaningful steps. We are surprised to see the adversarial nature in the way this section is being promoted and the exaggerated claims of farmworker exposure. A good program to help educate and inform workers upon request can result only if it is the product of input from all sides and a spirit of cooperation.

SEC. 3 - PRODUCT REGISTRATION: The D.E.P. already has the power under subchapter 1 cf its regulations (N.J.A.C. Title 7, Chapter 30) to deny, cancel, or suspend the registration of existing labelled products beyond the criteria in the federal FIFRA program. The content of this section of the bill also addresses desertification. We fear that vague language like "reasonably effective and practical alternative" may lead to decertification of products that are being used safely now but if lost would cause decreased effectiveness and hence economic loss to the farmer.

SEC. 8 - ACCIDENT REPORTING: The D.E.P. Bureau of Pesticide Control currently has a system in place for reporting pesticide accidents. Involving the Department of Health in the manner prescribed by this section of the bill seems like it could be achieved by administration directive.

SEC. 10 - PESTICIDE CONTROL COUNCIL: It is interesting to note that the language for designating a farmer member stipulates that the person "have training and experience in farming" rather than actually say he or she "shall be a farmer", as is the case under the present law.

SECS. 18819 - PENALTY SECTIONS: Many farmers are most concerned about the harsh terms in this section. We believe section 18 may open the door to a rash of threatening lawsuits as a means of achieving ends unrelated to posticide control. Section 19 has aptly been described as establishing a "bounty hunter" system. Farmers justifiably fear the liability being created by these sections in the bill. Neighbor harassment is already a big problem for farmers in New Jersey.

CONCLUSION:

We believe the bill is weak and lacks justification. There is no supporting documentation or analysis of pesticide use in New Jersey to accompany this bill. We recognize that some people have concerns about pesticide use, but any change to current regulations must be based on fact and experience. The D.E.P. considered many of the points in this bill when it revised the pesticide code, but opted to make several selective changes instead. They have asked and we appear that the present code should be given a chance to work, and then evaluated at a later date. They have the technical expertise and code enforcement experience to make these lecisions carefully.

We are not closed to this discussion of pesticide use, although farmers were not consulted when this bill was drafted. There is a benefit for greater public awareness and understanding of the benefits and potential risks associated with pesticides in the state. From agriculture's standpoint, however, we encourage

CONCLUSION (Continued)

this committee to refer this bill to the existing administrative review paccedures of the D.E.P. and other state agencies, where a mechanism already is in place to respond to these questions.

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Thank you for your attention.