CN – General

Sept. 26, 1984

Conceptual Review Report on Feasibility of Providing Sanitary Sewage and Potable Water Supply Facilities for Colts Neck Village Development and Sea Gull Village Development

Pg. 23

Report Author: Glenn R. Gerken
of Birdsall, Gerken & Dolan

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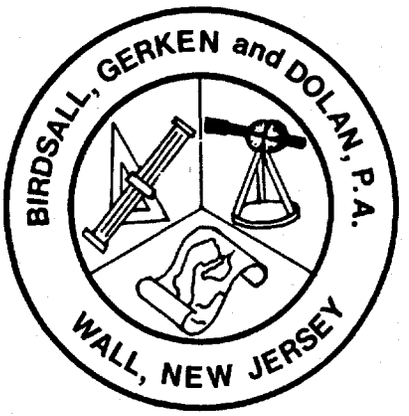
3/19/85 - EBS.

Birdsall, Gerken and Dolan, P.A.

PROFESSIONAL ENGINEERS • LAND SURVEYORS • PROFESSIONAL PLANNERS

CONCEPTUAL REVIEW REPORT
ON FEASIBILITY OF PROVIDING
SANITARY SEWAGE
and
POTABLE WATER SUPPLY FACILITIES
for
COLTS NECK VILLAGE DEVELOPMENT
and
SEA GULL VILLAGE DEVELOPMENT



2807 Hurley Pond Road
P.O. Box 1429
Wall, New Jersey 07719

TOWNSHIP OF COLTS NECK
Monmouth County
New Jersey

CONCEPTUAL REVIEW REPORT ON FEASIBILITY OF PROVIDING SANITARY SEWAGE and POTABLE WATER SUPPLY FACILITIES for COLTS NECK VILLAGE DEVELOPMENT and SEA GULL VILLAGE DEVELOPMENT

SEPTEMBER 26, 1984

BIRDSALL, GERKEN & DOLAN, P.A.
P. O. Box 1429/2807 Hurley Pond Road
Wall, New Jersey 07719

Glenn R. Gerken

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EXISTING WATER AND SEWER UTILITIES

No public water supply system or sanitary sewer system exists within Colts Neck. Therefore, to provide the necessary utility service to either of these two sites will require the extension of these utilities into Colts Neck from adjoining systems or construction of onsite facilities.

Within the municipalities bordering Colts Neck, Monmouth Consolidated Water System exists to the east and north within Tinton Falls Township, Middletown Township and Holmdel Township; Marlboro Township's MUA exists along the northerly border; Gordon's Corner Water Company along the westerly side; and Freehold Township Water System along the southwest portion of the Township.

Public sanitary sewer systems are available within Freehold Township to the southwest of Colts Neck and within Tinton Falls Township to the east of Colts Neck.

REGULATIONS CONTROLLING WATER SUPPLY AND DISTRIBUTION AND SANITARY SEWERAGE COLLECTION AND TREATMENT FACILITIES

Besides approval from local or regional authorities, approval from New Jersey Department of Environmental Protection is required. All construction either new or extension of existing water or sanitary sewerage systems must meet the requirements and comply with the regulations promulgated by the New Jersey Department of Environmental Protection.

Extension of a water distribution system from anyone of the water purveyors outside of Colts Neck to service any development must be reviewed, approved and permit granted from the New Jersey Department of Environmental Protection if the cost thereof exceeds $150,000. The New Jersey Safe Drinking Water Regulations, NJAC 7:10-11.7 governs extension of distribution systems. Subsection 11.7(b) states that "Approval of proposed major extensions to the distribution system shall not be granted where, by reason of inadequate prime source, transmission or storage capacities, the public community water system cannot, in the opinion of the Department, adequately provide for the additional water demand that can be expected". The key to approvals of said distribution systems would be to demonstrate that there exists an adequate source from the water purveyor.

The construction of any onsite water supply and/or water treatment facilities are also controlled by the aforesaid New Jersey Safe Drinking Water Regulations. Diversion rights must be obtained from the New Jersey Department of Environmental Protection for any well or surface water source when 100,000 gallons per day or more will be diverted.

Diversion right permits from groundwater supplies have become extremely difficult to obtain from the New Jersey Department of Environmental Protection due to the over utilization of certain groundwater acquifers. The main acquifers available for water supply within the Township are the Raritan, Englishtown and Mount Laurel-Wenonah. The probability of obtaining diversion rights for a new water system within any of these acquifers is very slight. At meetings and conversations that I have had with Mr. Ernest Hardin of the Water Allocation Section of the New Jersey Department of Environmental Protection he indicated that he cannot think of any mitigating factors at this time that would allow the granting of diversion rights for a new water system within the three above cited acquifers. He indicated that an existing system of inadequate supply would have a substantially better chance of obtaining a grant over a new system but even that would be difficult. As an example, Hardin indicated that Freehold Township received additional diversion rights this year for a new well, but the amount received was far below that requested and extensive conservation measures and program are required. He also indicated that Monmouth Consolidated failed in an attempt to receive additional groundwater diversion permits in their 1983 request.

Any extension of existing sanitary sewerage systems into Colts Neck or the construction of any onsite collection and treatment facilities must comply with applicable regulations from the New Jersey Department of Environmental Protection and the United States Environmental Protection Agency regulations concerning effluent discharge. Review, approval and permits are required by both agencies. Separate regulations exist for onsite discharge of effluent either by direct discharges into a stream or by land application via spray irrigation. Extensive water quality analysis of the stream where discharge is desired, is necessary. If the existing water quality of the stream is below the United States Environmental Protection Agency and the New Jersy Department of Environmental Protection standards, then the possibility of obtaining a permit is remote. If the quality of water in the stream is above the requirements, then based upon the quality, the amount of treatment required is determined.

If connection into existing facilities are proposed where no additonal treatment facilities are necessary, then the main design criteria is to assure that the existing facilities are adequate in capacity to handle the addional flow.

In the 1983 diversion application, future requirements for water demand by Monmouth Consolidated was based upon population projections in these communities that they serve. It did not include expansion outside of their existing service areas. Therefore, any expansion into Colts Neck would only further increase the water source availability deficit which exists within their current serving municipalities.

One point of particular interest which I feel warrants discussion is that of all the municipalities that Monmouth Consolidated supplies with water, only a small portion of Holmdel Township and a part of Tinton Falls lies within the limited growth area. All of the other twenty one municipalities lie within the growth and high growth area as established by the State Development Guide Plan. It is within these areas that the influx of population is planned and projected. Maybe it is coincidental but the areas of existing population growth and the areas of high growth and growth area designations on the State Develpment Guide Plan substantially coincide with areas where public water supply exists. To extend a substantial water main to the Orgo Site would extend public water to the center of the limited growth designated area. This extension could have a resounding repercussion in having readily available public water to a substantial portion of the limited growth area. This eliminates one of the utility problems that has kept the agriculture land viable. I have concern that the extension of this water main could possible open up substantial portions of agricultural land for development which is in conflict with the State Development Guide Plan and the Monmouth County Growth Management Guide.

Another item of major concern involving the extension of a water main to the middle of a limited growth area to service 1200+ units outside of Monmouth Consolidated current franchise area is that such action takes away from Monmouth Consolidated availability to service 1200+ units within their current service area. As touched upon above, about 95% of Monmouth Consolidated service is within the high growth and growth area. Therefore, the elimination of the ability of servicing 1200+ units within the high growth and growth area removes the availability of constructing 240 low and moderate housing units within those areas. In essence what it is doing is removing an availability of providing low and moderate housing units within areas so planned by the State Development Guide Plan and Monmouth County Growth Development Guide and providing them clearly in the middle of designated limited growth areas. This is clearly in conflict with all County and State plans.

In my opinion, the question of inadequate supply by Monmouth Consolidated Water Company to service this area currently exists and is clearly demonstrated by their own reports and data. To allow the extension of new water services to the Orgo Tract clearly removes the potential to service the same number of units within their current service area which is almost entirely in the growth and high growth area.

COLTS NECK VILLAGE (ORGO FARMS) SEWER AVAILABILITY

The Killam Report of January, 1979 proposes an onsite sanitary sewerage system with treatment and effluent discharge into the Hockhockson Brook. One day testing of the water quality in the Hockhockson Brook was performed. In response by the New Jersey Department of Environmental Protection back to Dale Mc Donald, dated March 27, 1979, they clearly indicated that there is insufficient data concerning the stream water quality at this location and further sampling is necessary. This presents the possibility that extensive treatment process may be needed or that effluent discharge may not be allowed. Until sufficient tests are performed, this will not be known.

In summary, I feel the availability to construct and onsite sewerage treatment facility for the Orgo Tract with effluent discharge into the Hockhockson Brook has not been clearly substantiated to be allowable to meet the New Jersey Department of Environmental Protection guidelines.

SEA GULL VILLAGE - WATER AVAILABILITY

Within a few hundred feet of the Sea Gull Site a public water system exists within Freehold Township. As indicated in Philip Caton's report of June 1984 and as I have determined from my discussions with the Township Administrator, Fred Jahn, Freehold Township is not interested and does not have excess capacity to provide water to this site.

Monmouth Consolidated has again indicated their availability to service this site at somewhat over three million dollars which computes to over $5,000. per unit. I feel this is not economically feasible.

There is the availability of another water company being able to provide water for this site, that being Gordon's Corner Water Company, which is located in Marlboro. Their closest facilities being approximately 2.8 miles away, at/or near the intersection of Route 18 and State Highway 79. Although I have not seen any cost estimates to extend a main to the Sea Gull site, utilizing the average cost per foot of $60. derived from Monmouth Consolidated projected cost, connection to Gordon's Corner would be in the range of $900,000. to one million. This converts to a cost per unit of $1,500. to $1,700. which is within a reasonable range.

Gordon's Corner Water Company has the potential of obtaining new sources of surface water from the Matchaponix Water Supply Company. Application was made to the New Jersey Department of Environmental Protection to divert five million gallons per day from the Matchaponix Brook. Attached is a copy of "Exhibit E" which is a letter from Ernest Hardin of the New Jersey Department of Environmental Protection to James Gordon of Sea Gull Ltd. Mr. Hardin's letter indicates that a previous concern of his was that Western Monmouth Utilities Authority would appeal a diversion grant to Matchaponix Water Supply Company, however he cites that Western Monmouth Utilities Authority have indicated that no appeal will be filed. I have checked with Ernest Hardin this week, September 24th, and he advises that the diversion permit was granted to Matchaponix Water Supply Company. Therefore, a strong possibility exists for new water supply which could feasibly be extended to the Sea Gull site.

The construction of onsite water supply for the Sea Gull tract is still a strong possibility. As stated earlier in this report diversion rights are not needed unless withdrawal exceeds 100,000 gallons per day. The method for computing the water demand prior to construction is based upon the estimated number of units multiplied by the estimated number of persons per unit multiplied by the estimated consumption per person per day.

The New Jersey Department of Environmental Protection utilized 100 gallons per person per day. If the units were to average 2.5 persons per unit then 400 units could be built utilizing the 100 gallon rate without the necessity for diversion rights. This would be a reduction of approximately 30% below the number of units currently requested.

There is also a possibility of obtaining more than 400 units. I have spoken with Ernest Hardin about lowering the 100 gallons rate and he has indicated that he would not consider it unless a section of the development was constructed and the amount monitored for a resonable time period. After that time, it may be possible to approve a lower than 100 gallons rate which could enable the construction of additional units. I wish to point out that according to Monmouth Consolidated's records, their per capita use for residential use is 69 gallons per day and the State average is 65 gallons per day see "Exhibit F". If after monitoring water consumption for part of the site, a rate of 75 to 80 gallons per day could be substantiated, then 500 to 530 units could be built without diversion rights which is only a 10 to 15% reduction below the number of units requested.

Another possibility to construct additional units would be to install a dual water system. One system derived from wells for inside use only. Another system derived from surface water for outside use and irrigation. There currently exists an irrigation pond on the property previously used for prior farm crop irrigation and mine brook forms the eastern boundary of the tract. There appears to be more than ample surface water supply to be utilized for the outside use and irrigation. I have discussed this approach with Mr. Hardin and he indicates that if the total water use from both surface and wells exceeds the 100,000 gallons per day a diversion permit would be required. However, he indicated that the conjunctive use of surface and ground water is advocated by the New Jersey Department of Environmental Protection and such an application would definitely have a higher possibility of being approved than if the only service was from wells.

A preliminary cost estimate which I prepared for the construction of two production wells at the site, well house pumps and appurtenances and 200,000 gallons elevated storage tank totals approximately $850,000. which computes to approximately $1,460./unit which I feel is a reasonable cost for water supply.

SEA GULL VILLAGE - SEWER AVAILABILITY

As indicated within Philip Canton's report, Sea Gull has proposed one alternative of connection into Freehold Township's sewer system which is a few hundred feet from the site. Although with certain upgrading of components to handle the additional flow this would be feasible from an engineering standpoint, from indication I received from Freehold Township, as with the water system, they do not want any involvement with this development.

A report by the office of Schoor, De Palma and Gillen, Inc. indicates that a pump station and force main could be constructed to transport the sewarage to the Manasquan Reiver Regional Sewerage Authority Trunk Line. According to my discussions with the M.R.R.S.A. personnel, the trunk line will extend to the Chesterfield Gardens Complex off Monmouth County Route 537. The shortest route via existing roads is approximately 12,000 L.F. for which I estimate the cost for the pump station and force main to be approximately $500,000. to $550,000. which computes to a cost of less than $1,000. per unit which I feel is a very reasonable cost.

As stated in Philip Caton's report there is ample capacity for the M.R.R.S.A. system to accommodate this entire flow and it would require approval by the Authority. I have discussed this aspect with the Attorney for the Authority, and he indicated that probably Colts Neck would not become a member of the Authority. This site would become a customer which would have to pay whatever annual fees are required for treatment and would not have any voting powers with the Authority. This approach has been utilized by several other sewerage authorities.

In general this appears to be a very practical approach to satisfy the sewer needs. This approach does not present any questions as to possibility of treatment. It would only required construction of a force main within Freehold Township which should not be any major obstacle.

MONMOUTH CONSOLIDATED WATER COMPANY

After completion of the basic portion of this report, I have been advised that Monmouth Consolidated Water Company has now made new application to the New Jersey Department of Environmental Protection for additional diversion rights. Part of which is for additional diversion via wells and part for diversion in a three stage step from the Manasquan River. The well diversion request is similar in part to the application which was withdrawn in 1983. The Manasquan River diversion request was not part of the 1983 request. The total amount of request for additional diversion is 3 mgd during the dry season via wells and 5 mgd from the Manasquan River from January 1, 1986 thru December 31, 1988. In studying the graph of "Exhibit C" attached, this additional diversion would basically just raise the diversion rights to the projected dry season on demand in January 1, 1986 with no noticeable surplus of water.

At a meeting held with Ken Critchlow of Monmouth Consolidated Water Company on September 26, 1984 he was asked if the future data projection demand figures submitted with their current application included requirements for supplying water to areas outside of their current service area such as Colts Neck Township. He responded that it did include some consideration to supply water outside of their service area but that these outside areas were coastal communities with their own water systems which have inadequate supply or distribution systems which may have to obtain water from Monmouth Consolidated to provide their future demands. This does not include any part of Colts Neck. So, if service is extended into Colts Neck, it will detract from the source available to the existing Monmouth Consolidated Service Area, the coastal communities with inadequate systems, all of which are within the growth and high growth areas.

The outcome of this current diversion right application will not be known for many months. As stated above part of the request for well diversion is similar to the previous 1983 request which was not granted but the application withdrawn by Monmouth Consolidated Water Company. With regards to the portion requesting diversion from the Manasquan River, I assume that this diversion is not over and above that projected for the Manasquan River Reservoir project, but would be an interim grant until that is constructed at which time any diversion going to Monmouth Consolidated from the Manasquan River would be from the Reservoir Project.

SUMMARY

CONCLUSION:

Based upon my review of all the items cited herein, it is my conclusion of the following:

A. Orgo Tract Water Supply

1. Water supply to the Orgo Tract can only be contemplated via on site system if the total units does not exceed approximately 400 which is about 1/3 of the 1200 units requested.

2. Water supply to Orgo Tract for all 1200 units would have to be supplied by Monmouth Consolidated Water Company. Monmouth Consolidated does not currently have a surplus of water but in fact overdraws their allowable diversion allocation. Projected population and demand figures by Monmouth Consolidated for new diversions does not include Colts Neck Area. To extend service into the limited growth area of Colts Neck will take away from potential servicing of new customers in there current service area or assistance of deficient water purveyors in the coastal communities, predominately all of which are within the growth and high growth area. The new diversion application may or may not be granted in whole or in part. If granted, it will only cover the current deficiency projected as of January 1, 1986.

B. Orgo Tract - Sewerage Treatment

1. The only plausible method appears to be an on site treatment facility with effluent discharge into the Hockhockson Brook. Although this may be feasible, it is not possible to assure this construction without further water quality investigation and study.

C. Sea Gull - Water Supply

1. Supply from Monmouth Consolidated not feasible.

2. Supply from Freehold Township not possible.

3. Supply from Gordon's Corner Water Company is plausible especially with the recent diversion grant to the Matchaponix Water Supply Company.

4. Supply to approximately 400 units via on site system is possible which is about 70% of amount requested. With stage construction and monitoring additional units may be possible. With separate surface water system for outside and irrigation use upwards to 530 units may be possible.

D. Sea Gull - Sewerage Treatment

1. Treatment through the Manasquan River Regional Sewerage Authority via a pump station and force main constructed from the site to the M.R.R.S.A. trunk lines is highly probable and environmentally sound.

SCHEDULE I
MONMOUTH CONSOLIDATED WATER COMPANY
SURFACE - GROUND WATER USE - M.G.
1980 - 1983

	MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTALS	%
1980	Surface	670.117	659.152	726.629	722.555	873.271	1,087.713	1,222.203	1,145.104	995.304	777.469	725.178	769.455	10,374.415	98%
	Ground	56.446	54.588	49.538	27.820	19.093	15.563	0	8.413	11.792	6.842	0	1.350	251.445	2%
													TOTAL	10,625.860	100%
1981	Surface	803.878	685.433	739.085	687.003	860.738	965.212	1,172.598	1,080.363	863.605	679.247	594.431	644.983	9,776.576	95%
	Ground	10.877	0	0	27.245	22.310	23.670	18.339	28.054	70.245	77.035	103.919	102.135	472.952	5%
													TOTAL	10,249.530	100%
1982	Surface	762.218	632.905	705.333	717.270	916.304	882.797	1,033.088	938.702	859.120	758.710	655.446	723.497	9,585.390	90%
	Ground	60.815	89.704	104.666	90.375	107.935	90.497	91.714	93.000	89.800	93.000	90.000	36.992	1,038.498	10%
													TOTAL	10,623.890	100%
1983	Surface	752.403	661.901	715.262	692.710	797.913	979.267	1,171.388	1,023.203	850.398	732.825	584.710	622.255	9,584.235	94%
	Ground	0	0	0	0	40.000	81.699	81.417	92.750	90.000	17.865	85.687	93.000	582.418	6%
													TOTAL	10,166.650	100%

[illegible] surface water diversion

"EXHIBIT A"

[illegible] [illegible]

1980

Quarter Ending

	1st. Month January	2nd. Month February	3rd Mo March
Total Diversion*	733,975	720,949	784,00
Plant Uses	7,352	7,209	7,83
Net Total Diversion (Less Plant Uses)	726,623	713,740	776,16
Delivered to other Water Supply Systems:			
Boro of Allenhurst	--	--	--
Boro of Red Bank	--	--	--
Boro of West Keansburg	179	173	20
Total Delivered to O.W.S.S.	179	173	20
Total Consumption in Respondent's Territory	726,444	713,567	775,96
Surface Diversion:			
Swimming River	550,916	555,168	666,05
Jumping Brook to Jumping Brook Station	--	--	--
Shark River to Jumping Brook Station	31,229	103,984	60,57
" " to Glendola Res. (See Item I)	--	--	--
Glendola Reservoir to Jumping Brook Station	88,032	--	--
Total Surface Diversion	670,177	659,152	726,62
Sub-Surface Diversion:			
Jumping Brook Station	56,446	54,588	49,5[illegible]
Ocean Grove Station	--	--	--
Total Sub-Surface Diversion	56,446	54,588	49,5[illegible]
Total Surface & Sub-Surface Diversion	726,623	713,740	776,16
Shark River Diversion:			
Pumped to Jumping Brook Station	31,229	103,984	60,5[illegible]
Pumped to Glendola Storage Reservoir	51,726	126,892	132,7[illegible]
Total	82,955	230,876	193,3[illegible]

*[Exc]lusive of diversion frum Shark River to Glendola Storage Reservoir (See Item I)

Quarter Ending June 30, 1980

	1st. Month April	2nd. Month May	3rd M June
Total Diversion*	757,099	898,272	1,114,
Plant Uses	6,724	5,908	11,
Net Total Diversion (Less Plant Uses)	750,375	892,364	1,103,
Delivered to other Water Supply Systems:			
Boro of Allenhurst	--	--	--
Boro of Red Bank	--	--	--
Boro of West Keansburg	--	--	
Total Delivered to O.W.S.S.	--	--	
Total Consumption in Respondent's Territory	750,375	892,364	1,103,2
Surface Diversion:			
Swimming River	722,555	803,672	860,9
Jumping Brook to Jumping Brook Station	--		--
Shark River to Jumping Brook Station	--	66,797	119,7
" " to Glendola Res.(See Item I)	--	--	--
Glendola Reservoir to Jumping Brook Station		2,802	107,0
Total Surface Diversion	722,555	873,271	1,087,7
Sub-Surface Diversion:			
Jumping Brook Station	27,820	19,093	15,5
Ocean Grove Station	--		
Total Sub-Surface Diversion	27,820	19,093	15,5
Total Surface & Sub-Surface Diversion	750,375	892,364	1,103,2
Shark River Diversion:			
Pumped to Jumping Brook Station	--	66,797	119,7
Pumped to Glendola Storage Reservoir	298,167	76,688	30,2
Total	298,167	143,485	150,0

*Exclusive of diversion from Shark River to Glendola Storage Reservoir (See Item I)

Exhibit "B"

"EXHIBIT B"

[illegible] Septe[illegible] 1980

	1st. Month July	2nd. Month August	3rd Mo[illegible] Septemb
Total Diversion*	1,234,664	1,165,262	1,017,3
Plant Uses	12,461	11,745	10,2
Net Total Diversion (Less Plant Uses)	total over 1,222,203	over 1,153,517	1,007,0
Delivered to other Water Supply Systems:			
Boro of Allenhurst	---	---	---
Boro of Red Bank	---	---	---
Boro of West Keansburg			
Total Delivered to O.W.S.S.	355	632	--
Total Consumption in Respondent's Territory	1,221,848	1,152,885	1,007,0
Surface Diversion:	over	over	ov[illegible]
Swimming River	942,314	903,965	897,3
Jumping Brook to Jumping Brook Station	---	---	
Shark River to Jumping Brook Station	55,406	97,459 ok	ok 1,2
" " to Glendola Res. (See Item I)	---	---	---
Glendola Reservoir to Jumping Brook Station	224,483 over	143,680	96,7
Total Surface Diversion	over 1,222,203	over 1,145,104	995,3
Sub-Surface Diversion:			
Jumping Brook Station	---	8,413	11,7
Ocean Grove Station	---	---	--
Total Sub-Surface Diversion	---	8,413	11,7
Total Surface & Sub-Surface Diversion	1,222,203	1,153,517	1,007,[illegible]
Shark River Diversion:			
Pumped to Jumping Brook Station	55,406	97,459	1,[illegible]
Pumped to Glendola Storage Reservoir	3,323	--	13,[illegible]
Total	58,729	97,459	14,[illegible]

[E]xclusive of diversion frum Shark River to Glendola Storage Reservoir (See Item I)

Exhibit "B"

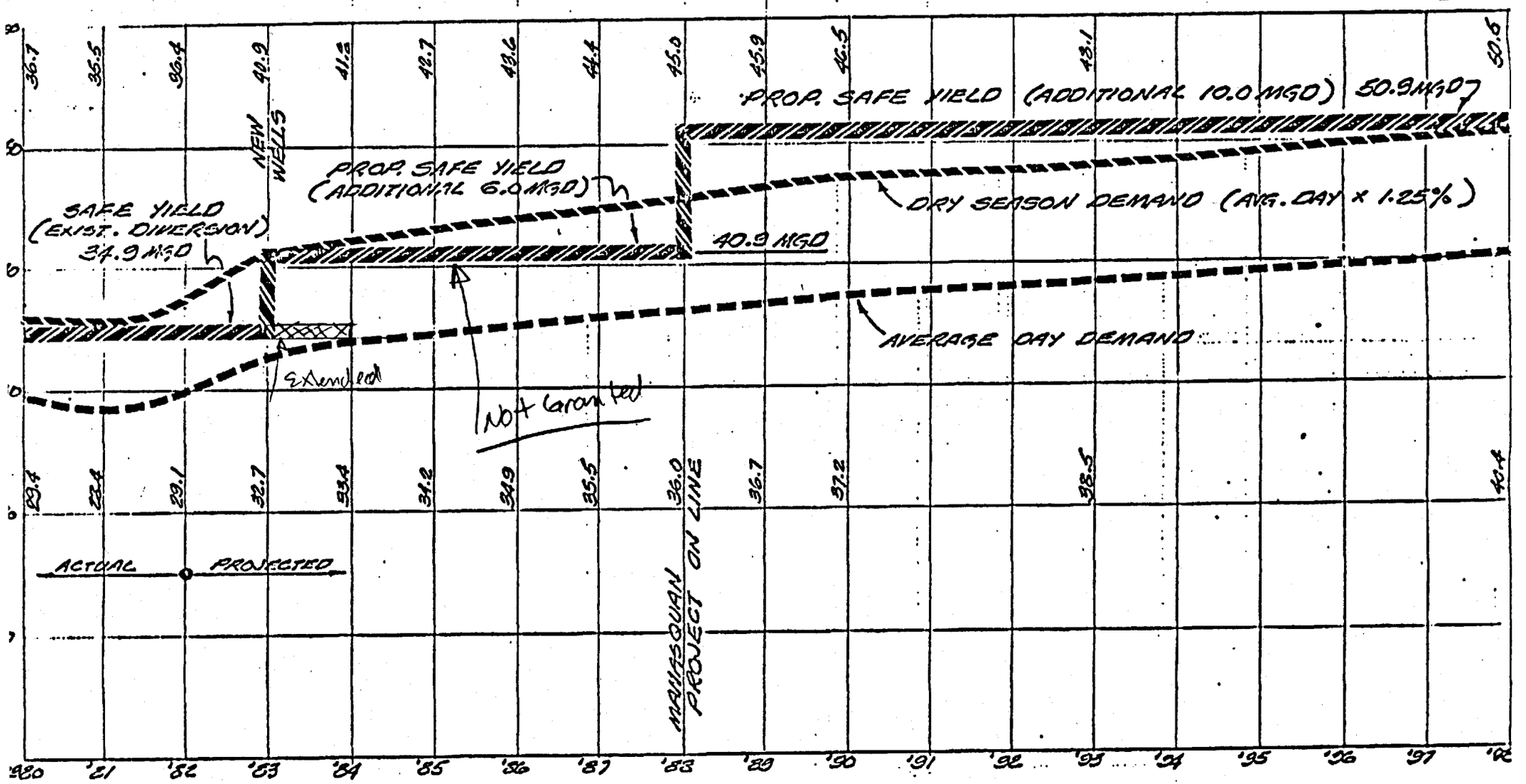
"EXHIBIT B"

Water Diversion by Stations in 1000 Gallons

Quarter Ending December 1960

	1st. Month October	2nd. Month November	3rd Decembe
Total Diversion*	792,241	732,508	778,595
Plant Uses	7,930	7,330	7,790
Net Total Diversion (Less Plant Uses)	784,311	725,178	770,805
Delivered to other Water Supply Systems:			
Boro of Allenhurst	---	---	---
Boro of Red Bank	---	---	---
Boro of West Keansburg	---	10	---
Total Delivered to O.W.S.S.	---	10	---
Total Consumption in Respondent's Territory	784,311	725,168	770,805
Surface Diversion:			
Swimming River	742,927	725,178	765,527
Jumping Brook to Jumping Brook Station	---	---	---
Shark River to Jumping Brook Station	10,868	---	3,928
" " to Glendola Res. (See Item I)	---	---	---
Glendola Reservoir to Jumping Brook Station	23,674	---	---
Total Surface Diversion	777,469	725,178	769,455
Sub-Surface Diversion:			
Jumping Brook Station	6,842	---	1,350
Ocean Grove Station	---	---	---
Total Sub-Surface Diversion	6,842	---	1,350
Total Surface & Sub-Surface Diversion	784,311	725,178	770,805
Shark River Diversion:			
Pumped to Jumping Brook Station	10,868	---	3,928
Pumped to Glendola Storage Reservoir	48,081	136,567	114,104
Total	58,949	136,567	118,032

*Inclusive of diversion from Shark River to Glendola Storage Reservoir (See Item I)



1983 Request

AMERICAN WATER WORKS SERVICE COMPANY, INC.
HADDON HEIGHTS, N. J.

EXHIBIT [redacted] "C"

EXHIBIT "D" 17.

RECEIVED

FEB 7 1983

MONMOUTH COUNTY PLANNING BOARD

D18: Surface water diversion appls.

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WATER RESOURCES

P.O. BOX CN 029
TRENTON, NEW JERSEY 08625

JOHN W. GASTON JR., P.E.
DIRECTOR

In the matter of

Monmouth Consolidated Water Company

Application to modify Permits No. 5018 and 5019 to divert water from the Magothy-Raritan formation in the Townships of Neptune and Middletown in Monmouth County

NOTICE OF PUBLIC HEARING, DIVISION OF WATER RESOURCES OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, TRENTON, NEW JERSEY. Pursuant to provisions of the Water Supply Management Act, N.J.S.A. 58:1A-1 et seq., Monmouth Consolidated Water Company, 661 Shrewsbury Avenue, Shrewsbury, New Jersey, filed application on December 20, 1982 for an additional 1 million gallons of water per day from Wells No. 4 and 6 at Jumping Brook Station; to construct a new well in the Magothy-Raritan formation at the Glendola Reservoir to pump directly into the Reservoir at a 2 million gallon per day rate and to construct 2 new wells in the Magothy-Raritan formation at the Swimming River Reservoir to pump into the existing raw water feed line at a 3 million gallon per day rate. The modification would increase their overall allocation from 1129.02 million gallons per month to 1314.02 million gallons per month. Diversion is to be used for public water supply for the Cities of Long Branch and Asbury Park, Townships of Middletown, Neptune, Ocean and Shrewsbury and a portion of Holmdel; the Boroughs of Bradley Beach, Deal, Eatontown, Fair Haven, Interlaken, Sea Bright, Shrewsbury, Tinton Falls, Little Silver, Monmouth Beach, Neptune City, Oceanport, Rumson, West Long Branch, part of Red Bank and the Village of Loch Arbour.

The Division's response to this application will include a review of the applicant's water allocation file and a permit, if issued, will include any necessary allocation renewals and may consolidate multiple allocations.

NOTICE IS HEREBY GIVEN that a public hearing has been scheduled on Tuesday, March 8, 1983 at 1:00 p.m., in the Division Conference Room, 1474 Prospect Street, Trenton , New Jersey to afford the public an opportunity to be heard on this application. Pursuant to the provisions of the Water Supply Management Act, N.J.S.A. 58:1A-1 et seq., and the regulations promulgated pursuant thereto at N.J.A.C. 7:19-1 et seq., this public hearing shall be held before a Hearing Officer for the Division of Water Resources. The applicant and other interested persons will have the opportunity to present and submit information and comment in favor of or in opposition to the application. The applicant and other interested persons may each be represented by counsel but this is not required. In response to this notice, any person may submit written comments in favor of or in opposition to approval of the application on or before February

EXHIBIT A 17

25, 1983 to:

Richard E. Bellis
Hearing Officer
DEP/DWR, PO Box CN029
Trenton, NJ 08625

NOTICE IS HEREBY GIVEN that pursuant to N.J.A.C. 7:19-2.8(a) (3)iv, the public hearing shall be cancelled if no interested parties, including the applicant and the Department have requested that the public hearing be held and specified the reasons for the request at least 10 days prior to the scheduled hearing date.

If a public hearing is held, the Hearing Officer shall have reasonable discretion in holding the hearing record open after the public hearing to receive written comments relative to the application and to allow the applicant to correct deficiencies in its application and respond to comments received at the public hearing.

After the close of the hearing record, the Hearing Officer, pursuant to N.J.A.C. 7:19-2.11, shall review the application, written comments and the transcript of the public hearing and submit a written report containing findings and recommendations to the Decision Maker for a final decision on the application. The Hearing Officer Report shall then be made available by the Decision Maker and an opportunity for comment offered to the applicant and other principal interested parties.

If the public hearing is waived, approval, conditional approval or denial of the application may be issued by the Decision Maker after his review.

The application and pertinent data may be examined in the Water Allocation Office of the Division, 1474 Prospect Street, Trenton, New Jersey 08625.

BY ORDER OF THE DIVISION OF WATER RESOURCES. February 3, 1983.

Richard E. Bellis
Hearing Officer

EXHIBIT E
19.

State of New Jersey

PHILIP W. GASTON JR., P.E.
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
TRENTON, NEW JERSEY 08625

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

, August 9, 1984

Mr. James Gordon
Sea Gull Ltd., Builders
20 White Road
Shrewsbury, N.J. 07701

Dear Mr. Gordon:

This is in response to your telephone request for information in the Matchaponix Water Co. request for an allocation of 5 million gallons per day from the Matchaponix Brook.

As you know, a public hearing was held on March 27, 1984. The hearing transcript was received in July and the hearing officer is now preparing his report and recommendations. I expect to receive them next week. At that time I will send a copy to all interested parties, who will have 10 days in which to submit written comments. At the end of the comment period, I will send the recommendations and comments received to the decision maker, who is William Whipple, the Assistant Director for Water Supply and Flood Plain Management. Upon his approval, we issue the permit. I expect this process to be completed during August.

One of my concerns was that the Western Monmouth Utilities Authority had informed us unofficially of their intent to appeal the allocation if granted. We understand that the Board of the MUA has recently decided not to oppose the allocation.

When approved Matchaponix Water Co. will be in a position to provide up to 5 million gallons of surface water per day for approximately 8 months per year. This water will be purchased by regional water systems to supplement their well water supplies. The idea is to use surface water when it is available and to save the wells for those periods when surface water is not available. This will increase the total water available to the regional area.

Very truly yours,

Ernest L. Hardin

Ernest L. Hardin, Chief
Bureau of Water Allocation

EXHIBIT F

20.

American Water Works Service Company, Inc.
An American Water Works System Company

500 Grove Street
Haddon Heights, N.J. 08035

(609) 547-3211

Eastern Division

ENGINEER'S REPORT

ACCOMPANYING APPLICATION FOR DIVERSION(S)

MONMOUTH CONSOLIDATED WATER COMPANY

1. 1 MGD at Jumping Brook Plant
2. 2 MGD at Glendola Reservoir
3. 3 MGD at Swimming River Plant

A. GENERAL

The Monmouth Consolidated Water Company supplies potable water for general use to an extensive service area of Monmouth County, New Jersey. The territory served covers about 120 square miles of area. The system spans approximately fifteen (15) miles along the Atlantic Coast, from Sandy Hook Bay to Shark River and ranges inland up to nine (9) miles. Numerous residential and commercial centers, as well as a number of popular shore resorts are served. Located within commuting distance of New York City and having excellent highway and transportation facilities, future prospects for a continued high growth rate in population appear assured.

Communities served include the Cities of Long Branch and Asbury Park; the Townships of Middletown, Neptune, Ocean and Shrewsbury plus a portion of Holmdel; the Boroughs of Bradley Beach, Deal, Eatontown, Fair Haven, Interlaken, Sea Bright, Shrewsbury, Tinton Falls, Little Silver, Monmouth Beach, Neptune City, Oceanport, Rumson, West Long Branch, part of Red Bank and the Village of Loch Arbour. The Water Company also has interconnections with the Boroughs of Allenhurst and Avon and the West Keansburg Water Company. The average population served directly during 1981 was 246,500. The number of customers served rose to 64,500, representing a six (6) percent increase during the three year period ending in 1981. All customers are metered.

The Water Company houses Administration, Distribution, and Commercial personnel at the Operations Center located in Shrewsbury on Shrewsbury Avenue. Production, operation and maintenance personnel are housed at the Swimming River Station in Colts Neck which is the control center for

C. PROPOSED ADDITIONAL SOURCE OF SUPPLY

Monmouth Consolidated Water Company, the largest single water purveyor in this region, is surrounded by several weak and, in some circumstances, poor water supply systems. Though the company's intent is not to construct facilities to back up other systems, the fact remains that a failure of one of these adjoining systems would impact on Monmouth Consolidated Water Company and its supply requirements.

To meet the increasing demand of the Monmouth Consolidated Water Company System (see enclosed graph, Exhibit A, Dry Season Demand vs. Yield vs. Average Day Demand 1980 to 1998). The company is seeking an increase (see Exhibit F) in the amount of 6.00 MGD, spread over three of the company's facilities. The first location and subsequent diversion increase is an increase of one (1) MGD for the two existing Jumping Brook Wells numbered 4 and 6. which constitutes an increase in diversion from 2.0 MGD to 3.0 MGD.

The second location and proposed request is for a 2.0 MGD Raritan Formation well to be located on water company property at the Glendola Reservoir site. This diversion to be pumped directly into the reservoir will receive treatment (along with the Jumping Brook well diversions) at the Jumping Brook Plant.

The third location and proposed request is for two 1.5 MGD Raritan formation wells to be located on water company property at the Swimming River Plant. These two wells will pump directly to existing raw water mains which flow between the reservoir intake structure and the treatment plant.

This application for additional source of supply is considered to be "justified by public necessity" as indicated on the enclosed Exhibit A. As shown on the graph, an additional diversion in the amount of 6.00 MGD will meet the 1983 projected dry season demand of the customers of Monmouth Consolidated Water Company. Even with a proposed total diversion of 40.9 MGD (34.9 MGD existing plus the 6.0 MGD being sought under this application) the projected deficit between yield (total diversion) and dry season demand, increases from 0.9 MGD in 1984 to 4.10 MGD in 1988. If the Manasquan project is on line in 1988, however, no deficit would exist for at least the next ten years beyond 1988.

The 1980 per capita use of residential customers is 69 GPD. A large proportion of these customers, all fully metered and a majority provided with sanitary sewage collection to regional wastewater plants, live in large single family homes. The per capita use include irrigation as well as sanitary requirements. The state average is 65 GPD for all customers.

The company intends to intensify its unaccounted for water location efforts. Exhibit D details the change in this figure