

Appendix R-8
April 25, 2017 Letter and Attachments from Mark Hissey, Senior
Vice President, Discovery Land Company to Supervisor Jay
Schneiderman and the Town Board

April 25, 2017

Jay Schneiderman, Town Supervisor
John Bouvier, Town Board Member
Stan Glinka, Town Board Member
Julie Lofstad, Town Board Member
Christine Scalera, Town Board Member

Southampton Town Hall
116 Hampton Road
Southampton, NY 11968

Dear Supervisor Schneiderman and the Southampton Town Board Members:

As you know, we have been working to provide the board with additional independent reviews of The Hills DEIS, including analyses of the fertigation (denitrification) well to "pump and fertilize" the Hills property and the Integrated Turf Health Management Plan, which includes the entire fertilized area of the property. The Town's own consultants, Dr. Martin Petrovic, a turf grass and water quality expert from Cornell University' School of Plant Science and AKRF, environmental planning, have provided expert guidance and feedback on the Hills DEIS. We are getting additional peer reviews from hydrologists and hydrogeologists. Please let us know if there are any other specific peer reviews that you would like to see.

Independent reviewers to date include:

Kevin McAllister - Defend H2O - Marine Science
Stuart Cohen, Ph.D. - Turfgrass Science
Chris Gobler, Ph.D. - Marine Science - Stony Brook
Alfred J. Turgeon, Ph.D. - Turfgrass Science - Penn State
Mike Fidanza, Ph.D. - Turfgrass Science - Penn State

We recently received a copy of a report from Chris Gobler which he sent to the town as a response to the Hills DEIS. We have thoroughly reviewed the report and have called out some key issues from the analyses, including overstated acreages and fertilizer rates, in the attached summary and tables. We have shared these issues with Dr. Gobler but have not heard back from him as yet regarding these discrepancies.

As always, our team is open to peer review in order to provide you with the best information so that you can make a confident decision based on the science and on accurate data.

Please advise me as to when you would like to discuss this matter further and how we can address the specific scientific areas in further detail.

Thank you.

Mark Hissey
Senior Vice President
Discovery Land Company

cc: Sundy Schermeyer, Southampton Town Clerk
Kyle Collins, Southampton Town Planning/Development Administrator

OVERVIEW

This report is designed to point out some of the critical issues in the “Comments on DEIS of the Hills PDD: Effects of surface and groundwater quality,” submitted by Christopher J. Gobler, PhD on Stony Brook University School of Marine and Atmospheric Sciences letterhead, dated March 2017, and submitted on March 31, 2017 to the Southampton Town Clerk.

CRITICAL ISSUES IN THE GOBLER/SoMAS REPORT

- 1.Total Fertilized Area calculation
- 2.Amount of Fertilizer to be used
- 3.Total Impervious Acreage calculation
4. Leaching Rate

1.TOTAL FERTILIZED AREA CALCULATION

As shown in the attached Tables 2 & 4, the total fertilized area was overstated by 28% or 25 acres for the Hills. The maximum allowable fertilized area on the Hills property per Southampton Town Code is 15% or 88.65 acres on the total of 591 acres. The model includes a total of 113 acres of fertilized area in the Hills column.

2.AMOUNT OF FERTILIZER TO BE USED

As shown in the attached Table 4, the total amount of fertilizer projected to be used by The Hills was overstated by 72% due to acreage miscalculations and overstated inputs not from the DEIS and not within the EPA Challenge of 2004 which limits fertilizer on East End golf courses to 2.5 lbs/1000 sq ft.

3.TOTAL IMPERVIOUS ACREAGE CALCULATION

As shown in the attached Table 3, the amount of impervious acreage in the Hills was overstated by 55.11 acres or 602%.

4.LEACHING RATE

As shown in the attached Table 1, the leaching rate that was applied is significantly higher than what has been experienced at the similarly developed and managed golf course in Southampton Town-Sebonack and significantly higher than what was recommended for The Hills DEIS by Dr. Martin Petrovic of Cornell University.

IMPACT OF THESE ISSUES

The fertilized area and fertilizer amount inaccuracies result in an overstatement of net nitrogen of over 1100 pounds/yr or 33% of the estimated total in the report. The overstatement of leaching rate results in an additional overstatement of over 1500 pounds of net nitrogen per year. Combined, these three calculations overestimate nitrogen for The Hills by 72%.

OTHER ISSUES

The report completely discounts/disregards the mitigation efforts to further reduce nitrogen including the fertigation/denitrification well, lined greens and rain gardens and other proven technologies although these are well-documented, effective technologies that can improve water quality in the aquifer. These mitigation efforts are projected to remove 2500 pounds of nitrogen per year, making the Hills PDD, nitrogen negative, thereby improving water quality in the aquifer. The report does not include the value to the watershed of the investment in offsite sanitary system upgrades, shellfish restoration, eel grass planting nor funding in research to further mitigate nitrogen loading in Western Shinnecock Bay.

Finally, the report inaccurately portrays the amount of fertilizer needed for turf as being more of a variable than what it is, which is, in fact, a maximum/finite amount per year.

DEIS REVIEW BACKGROUND

This technical team worked collaboratively for internal peer review and quality control and all documentation was further peer reviewed by the Town experts **Dr. A. Martin Petrovic** and **Robert White** of AKRF prior to acceptance of the DEIS. The Town's own consultants are experts in their respective fields covering agronomy, hydrology, hydrogeology, turf management, environmental planning, fertigation and other relevant disciplines. Further, the Hills ITHMP was peer reviewed by **Alfred J. Turgeon Ph.D.** and **Mike Fidanza Ph.D.** of [Penn State's Department of Plant Science](#).

In addition, The Hills project sponsor Discovery Land Companies (DLC) retained noted experts [PW Grosser Consulting, Inc.](#) - hydrogeology, waste water, engineering (**Dr. Paul Grosser, Ph.D., P.E., P.G.**), [Nelson, Pope & Voorhis](#), LLC - environmental planning, nitrogen budget analyses (**Charles J. Voorhis, CEP, AICP**), East Quogue Golf Corporation - Integrated Turf Health Management (**Jeffrey Seeman, CGCS, CEP**), [Greenman-Pedersen, Inc.](#) - Ecology, Hydrology, Surface water (**Robert Grover**), [Environmental and Turf Services, Inc.](#) (**Stuart Cohen, Ph.D.** Turf Management) and other legal specialists - land use, long range municipal planning (**Wayne Bruyn, Esq.**), golf and environmental design specialists (**Fazio Design** and **Vita, Inc.**), and irrigation specialists (**Paul Granger** of Aqua Agronomic Solutions, Inc).

Table 1. Constants used to determine nitrogen loads for this (Gobler) report. Note units of kg, ha, etc..

Constants and Calculations	Hills	As of right	As of right	Golf-tees	Golf-rough	Existing	Units
N Inputs from wet and dry deposits	5.37	5.37	5.37	5.37	5.37	5.37	kg per ha per yr
Forest N uptake	0.75	0.75	0.75	0.75	0.75	0.75	percent of deposition retained
Forest N release	0.25	0.25	0.25	0.25	0.25	0.25	percent of deposition released
Vadose N uptake	0	0	0	0	0	0	percent of deposition retained
Vadose N release	1	1	1	1	1	1	percent of deposition released
Turf N uptake	0.7	0.7	0.7	0.7	0.7	0.7	percent of deposition retained
Turn N release	0.3	0.3	0.3	0.3	0.3	0.3	percent of deposition released
Agriculture N release	0.4	0.4	0.4	0.4	0.4	0.4	percent of deposition released
N throughput from freshwater ponds to aquifer	0.45	0.45	0.45	0.45	0.45	0.45	percent of inputs
N throughput from wetlands to aquifer	0.25	0.25	0.25	0.25	0.25	0.25	percent of inputs
N released per person per year	4.536	4.536	4.536	4.536	4.536	4.536	kg per cap per yr
Percent of N inputs released from septic tanks	0.94	0.94	0.94	0.94	0.94	0.94	percent of added N released
Leaching field effluent	0.9	0.9	0.9	0.9	0.9	0.9	percent of added N released
N released from the <i>phase(?)</i> of the septic system (I/A OSWT)	0.4	0.4	0.4	0.4	0.4	0.4	percent of added N released
Percent of buildings with fertilized lawns	1	0.9	0.9	0.9	0.9	0.9	percent
Fertilizer applied to lawns	99	99	99	99	99	99	kg per ha per yr
Fertilizer applied to golf courses	189.9	189.9	189.9	189.9	49	123	kg per ha per yr
Fertilizer applied to Parks & Athletic Fields	45	45	45	45	45	45	kg per ha per yr
Fertilizer applied to agriculture	90.81	90.81	90.81	90.81	90.81	90.81	kg per ha per yr
Gaseous loss of fertilizer - residential lawns	0.3	0.3	0.3	0.3	0.3	0.3	Percent fertilizer transported
Gaseous loss of fertilizer - golf courses	0.2	0.2	0.2	0.2	0.2	0.2	Percent fertilizer transported
Gaseous loss of fertilizer - parks & athletic fields	0.4	0.4	0.4	0.4	0.4	0.4	Percent fertilizer transported
Gaseous loss of fertilizer - Agriculture	0.4	0.4	0.4	0.4	0.4	0.4	Percent fertilizer transported
Moraine attenuation	0.075	0.075	0.075	0.075	0.075	0.075	Percent of N entering the aquifer that is lost
Moraine attenuation	0.925	0.925	0.925	0.925	0.925	0.925	Percent of N entering the aquifer that is released
Constants and Calculations	Hills	As of right	As of right	Golf-tees	Golf-rough	Existing	Units
N Inputs from wet and dry deposits	4.79	4.79	4.79	4.79	4.79	4.79	lbs/ac/yr
Forest N uptake	0.75	0.75	0.75	0.75	0.75	0.75	percent of deposition retained
Forest N release	0.25	0.25	0.25	0.25	0.25	0.25	percent of deposition released
Vadose N uptake	0	0	0	0	0	0	percent of deposition retained
Vadose N release	1	1	1	1	1	1	percent of deposition released
Turf N uptake	0.7	0.7	0.7	0.7	0.7	0.7	percent of deposition retained
Turn N release	0.3	0.3	0.3	0.3	0.3	0.3	percent of deposition released
Agriculture N release	0.4	0.4	0.4	0.4	0.4	0.4	percent of deposition released
N throughput from freshwater ponds to aquifer	0.45	0.45	0.45	0.45	0.45	0.45	percent of inputs
N throughput from wetlands to aquifer	0.25	0.25	0.25	0.25	0.25	0.25	percent of inputs
N released per person per year	10.00	10.00	10.00	10.00	10.00	10.00	lbs/cap/yr
Percent of N inputs released from septic tanks	0.94	0.94	0.94	0.94	0.94	0.94	percent of added N released
Leaching field effluent	0.9	0.9	0.9	0.9	0.9	0.9	percent of added N released
N released from the <i>phase(?)</i> of the septic system (I/A OSWT)	0.4	0.4	0.4	0.4	0.4	0.4	percent of added N released
Percent of buildings with fertilized lawns	1	0.9	0.9	0.9	0.9	0.9	percent
Fertilizer applied to lawns	2.03	2.03	2.03	2.03	2.03	2.03	lbs/1000-sq ft/yr
Fertilizer applied to golf courses	3.89	3.89	3.89	3.89	1.00	2.52	lbs/1000-sq ft/yr
Fertilizer applied to Parks & Athletic Fields	0.92	0.92	0.92	0.92	0.92	0.92	lbs/1000-sq ft/yr
Fertilizer applied to agriculture	1.86	1.86	1.86	1.86	1.86	1.86	lbs/1000-sq ft/yr
Gaseous loss of fertilizer - residential lawns	0.3	0.3	0.3	0.3	0.3	0.3	Percent fertilizer transported
Gaseous loss of fertilizer - golf courses	0.2	0.2	0.2	0.2	0.2	0.2	Percent fertilizer transported
Gaseous loss of fertilizer - parks & athletic fields	0.4	0.4	0.4	0.4	0.4	0.4	Percent fertilizer transported
Gaseous loss of fertilizer - Agriculture	0.4	0.4	0.4	0.4	0.4	0.4	Percent fertilizer transported
Moraine attenuation	0.08	0.08	0.08	0.08	0.08	0.08	Percent of N entering the aquifer that is lost
Moraine attenuation	0.93	0.93	0.93	0.93	0.93	0.93	Percent of N entering the aquifer that is released

Based on recent local meteorological data and the assumed water recharged by natural land (23.50-in/yr), PWG inputs Burbs calculated 7.99 lbs/ac/y

N removal rate of natural land? Burbs recommends .9. PWG used this value.

14.-Fraction of N leached from turf? CG claim 20% turf leaching rate in report? Using 30% here? PWG varied turf leaching rate depending on land use/type where appropriate. 10-20% on the GC based on MP, and 20% for residential portio

PWG used 10-lbs/person/yr

1- (.94(septic) x .9(leaching pools))= .154 15% efficient? PWG has cesspools alone at 20%

60%eff. PWG has advanced at 70%

TMP states 1-lb/1000-sq ft. PWG used this value.

TMP - 2.5-lbs/1000-sq ft greens, 1-lb/1000-sq ft rough

Table 2. Nitrogen loading rates for differing scenarios from Gobler Report. Note units of kg, ha, etc

	Hills	As of right, max 0.15% cleared, SH, WHB (?)	As of right, min six months	Golf-tees	Golf-rough	Existing	units	Hills	As of right, max 0.15% cleared, SH, WHB (?)	As of right, min six months	Golf-tees	Golf-rough	Existing	units	
Inputs															
Total Occupancy >200m of shore	180	220	150	0	0	0	people	444.78	543.62	370.65	0	0	0	people	
Total Occupancy <200m of shore	0	0	0	0	0	0	people	0	0	0	0	0	0	people	
Watershed area	204	239	239	17	19	236	ha	504.084	590.569	590.569	42.007	46.949	583.156	ac	
Area of wetlands (freshwater)	0	0	0	0	0	0	ha	0	0	0	0	0	0	ac	
Area of agriculture	0	0	0	0	0	7.48	ha	0	0	0	0	0	18.48308	ac	
Area of golf courses	0	0	0	17	19	0	ha	0	0	0	42.007	46.949	0	ac	
Area of parks and athletic field lawns	0	0	0	0	0	0	ha	0	0	0	0	0	0	ac	
Impervious surfaces total	26	67.35701382	24	0	0	0	ha	64.246	166.4391811	59.304	0	0	0	ac	
Area of freshwater ponds	2.00	0	0	0	0	0	ha	4.942	0	0	0	0	0	ac	
Area of road	7.00	7	7	0	0	0	ha	17.297	17.297	17.297	0	0	0	ac	
Area of driveway	7.00	35	7	0	0	0	ha	17.297	86.485	17.297	0	0	0	ac	
Area of roof	10	15	10	0	0	0	ha	24.71	37.065	24.71	0	0	0	ac	
Area of residential lawn	10	35.4	10	0	0	0	ha	24.71	87.4734	24.71	0	0	0	ac	
Other impervious surfaces total	2.00	10.36	1	0	0	0	ha	4.942	25.59956	2.471	0	0	0	ac	
Local Constants															
Percent of parcels with cesspools	0	0	0	0	0	0									
Percent of parcels with septic systems	1	1	1	1	1	1									
Calculations															
Atmospheric Deposition															
Natural Vegetation	223	183	275	0	0	307	kg/yr	491.715	403.515	606.375	0	0	676.935	lbs/yr	
Turf	16	57	16	27	31	0	kg/yr	35.28	125.685	35.28	59.535	68.355	0	lbs/yr	
Agriculture	0	0	0	0	0	16	kg/yr	0	0	0	0	0	35.28	lbs/yr	
Other Impervious Surfaces	11	56	0	0	0	0	kg/yr	24.255	123.48	0	0	0	0	lbs/yr	
Ponds	5	0	0	0	0	0	kg/yr	11.025	0	0	0	0	0	lbs/yr	
Wetlands	0	0	0	0	0	0	kg/yr	0	0	0	0	0	0	lbs/yr	
Roads	38	38	38	0	0	0	kg/yr	83.79	83.79	83.79	0	0	0	lbs/yr	
Driveways	11	56	11	0	0	0	kg/yr	24.255	123.48	24.255	0	0	0	lbs/yr	
Roof	16	24	16	0	0	0	kg/yr	35.28	52.92	35.28	0	0	0	lbs/yr	
Subtotal	320	414	356	27	31	323	kg/yr	705.6	912.87	784.98	59.535	68.355	712.215	lbs/yr	
Total with transport loss	296	383	330	25	28	299	kg/yr	652.68	844.515	727.65	55.125	61.74	659.295	lbs/yr	
	651														
Fertilizer															
Agriculture	0	0	0	0	0	272	kg/yr	0	0	0	0	0	599.76	lbs/yr	
Residential Lawns	297	946	267	0	0	0	kg/yr	654.885	2085.93	588.735	0	0	0	lbs/yr	
Golf	0	0	0	646	186	0	kg/yr	0	0	0	1424.43	410.13	0	lbs/yr	
Parks + Athletic Fields	0	0	0	0	0	0	kg/yr	0	0	0	0	0	0	lbs/yr	
Subtotal	297	946	267	646	186	272	kg/yr	654.885	2085.93	588.735	1424.43	410.13	599.76	lbs/yr	
Total with transport loss	275	875	247	597	172	251	kg/yr	606.375	1929.375	544.635	1316.385	379.26	553.455	lbs/yr	
Wastewater															
Cesspools - outside 200m of shore	0	0	0	0	0	0	kg/yr	0	0	0	0	0	0	lbs/yr	
Septic - outside 200m of shore	256	312	213	0	0	0	kg/yr	564.48	687.96	469.665	0	0	0	lbs/yr	
Cesspools - within 200m of shore	0	0	0	0	0	0	kg/yr	0	0	0	0	0	0	lbs/yr	
Septic - within 200m of shore	0	0	0	0	0	0	kg/yr	0	0	0	0	0	0	lbs/yr	
Total	256	312	213	0	0	0	kg/yr	564.48	687.96	469.665	0	0	0	lbs/yr	
Total Nload (kg/yr)	826	1,570	790	623	201	550	kg/yr	1821.33	3461.85	1741.95	1373.715	443.205	1212.75	lbs/yr	
Total Nload (kg/ha/yr)	4.048288944	6.570328802	3.304637429	36.621675	10.555175	2.33036729	kg/ha/yr	3.613147809	6.867605399	3.455674054	2.7251708	0.87922846	2.40584903	lbs/ac/yr	
Hills plus golf calc	1,649						kg/yr	3,636.05						lbs/yr	
Hills plus golf, and not N from fertigation	1,876						kg/yr	4,136.58						lbs/yr	

Notes:

1-kg ~ 2.205-lbs

1-ha ~2.471-ac

C54 - CG, based on 204-ha (504.084-ac) i.e. 826-kg/4.048288944-kg/ha = 204-ha * 2.471 = 504.084

p. 6 CG - N loads drops to 660-lbs/yr... i.e. 1212.75-553.455 (ag. Fert. w/transport losses) = 659.295-lbs/yr

K56 - CG - adding 500-lbs N/yr for additional N from fertilizer

Table 3 - Comparison of Averages Used in Nitrogen Load Modeling

Gobler Table 2 - Inputs	Units	PPD		As of Right				Golf Course			Existing		
		Hills	DEIS and PWGC N Load Analysis	As of Right	DEIS and PWGC N Load Analysis	As of right, min six months	DEIS and PWGC N Load Analysis	Golf-tees	Golf-rough	Total Golf Course	DEIS and PWGC N Load Analysis	Existing	DEIS and PWGC N Load Analysis
		Gobler Table 2	60 day Occupancy	Gobler Table 2	75% Occupancy	Gobler Table 2	6 month Occupancy	Gobler Table 2			Gobler Table 2		
Total Occupancy >200m of shore	People	180.00	48.38	220.00	215.94	150.00	147.50	0.00	0.00			0.00	
Total Occupancy <200m of shore	People	0.00		0.00		0.00		0.00	0.00			0.00	
<i>Watershed area</i>	<i>Acres</i>	<i>504.08</i>	<i>510.70**</i>	<i>590.57</i>	<i>591.00</i>	<i>590.57</i>	<i>591.00</i>	<i>42.01</i>	<i>46.95</i>	<i>88.96</i>	<i>78.00</i>	<i>583.16</i>	<i>591.00</i>
Area of wetlands (freshwater)	Acres	0.00		0.00		0.00		0.00	0.00			0.00	
Area of agriculture	Acres	0.00		0.00		0.00		0.00	0.00			18.48	18.42
Area of golf courses	Acres	0.00		0.00		0.00		42.01	46.95	88.96	78.00***	0.00	
Area of parks and athletic field lawns	Acres	0.00		0.00		0.00		0.00	0.00			0.00	
Impervious surfaces total	Acres	64.25	9.14	166.44	37.20	59.30	37.20	0.00	0.00			0.00	
Area of freshwater ponds	Acres	4.94		0.00	21.97	0.00	21.97	0.00	0.00			0.00	
Area of road	Acres	17.30	*	17.30	*	17.30	*	0.00	0.00			0.00	
Area of driveway	Acres	17.30	*	86.49	*	17.30	*	0.00	0.00			0.00	
Area of roof	Acres	24.71	*	37.07	*	24.71	*	0.00	0.00			0.00	
Area of residential lawn	Acres	24.71	10.34	87.47	88.65	24.71	88.65	0.00	0.00			0.00	
Other impervious surfaces total	Acres	4.94	*	25.60	*	2.47	*	0.00	0.00			0.00	
		504.08	510.70**	590.57	591.00	590.57	591.00			88.96	78.00***	583.16	591.00

Notes:

Comments on DEIS, Chris Gobler - Table 2

NP&V DEIS and PWGCC N load (Burbs) derived values.

Chris Gobler Table 2 units (ha) converted to acres.

Watershed area believed to be total of modeled area. Areas below watershed area represent fractions of surface type(s) compared to watershed area.

Existing - if watershed represents total modeled area, then Gobler Existing slightly underestimates total area.

Golf Course - Gobler appears to handle entire golf course as fertilized area. Lumped into tees and rough. Total for fertilized golf course equals 78 acres (Burbs)

For Golf-tees and Golf-rough, area of golf course (tees) appears to be rough sum of tees, greens, and fairways. Rough is sum of rough and other misc. golf course areas (DEIS)

* - Included in Impervious surfaces total

** - PWGC total modeled area (588.70 acres) less 78.00 acres (fertilized golf course area), as compared to C. Gobler PDD residential only analysis. If the entire golf course area (95.12 acres) is subtracted then total modeled area would equal 493.58 acres.

*** - PWGC derived Total Fertilized Golf Course Area, as compared to C. Gobler fertilized golf course areas. PWGCC included an additional 17.2 acres of non-Fertilized Golf Course Area. PWGC total golf course area equals 95.12 acres.

Table 4

Gobler Report compared to Hills DEIS	Unit of measurement	GOBLER REPORT HILLS INCL GOLF COURSE AREA	HILLS PDD DEIS	GOBLER AMOUNT OVER HILLS DEIS	GOBLER % OVER HILLS DEIS
FERTILIZED AREA	acres				
Residential Lawns		24.71	8.22	16.49	201%
Golf Course Tees, Greens and Fairways		42.007	41.24	0.767	2%
Golf Course Rough		46.949	36.76	10.189	28%
Clubhouse		0	2.31	-2.31	-100%
Other					
Total		113.666	88.53	25.136	28%
IMPACT		Max allowable is 15% of property or 88.65 acres. Model uses 113.666 acres		Overstates fertilized area by 25.136 acres	Overstates fertilized area by 28% over what is possible and over what is in the DEIS
FERTILIZER	lbs/1000 sq ft/yr		Hill ITHMP		
Residential Lawns		2.03	1.0	1.03	103%
Golf Course Tees, Greens and Fairways		3.89	2.5	1.39	55.6%
Golf Course Rough		1.0	1.0	0.0	0
Clubhouse			1.0		
Other					
FERTILIZER TOTALS/YR	pounds/yr				
Res Lawn total		2185.026	358.063	1826.963	510%
Golf Tees total		7118.019	4491.036	2626.983	58%
Golf Rough total		2045.098	1601.266	443.833	28%
Clubhouse		0	100.6	-100.6	-100%
TOTALS		11348.844	6551.288	4797.179	73.225%
		Uses inputs not included in the DEIS	Entire property managed by ITHMP and within EPA's 2004 East End Golf Course Challenge to protect the Estuary	Significantly overstates the amount of fertilizer to be used every year	Overstates the amount of fertilizer by 73%. The actual amount is estimated to be even less, which would increase this overstatement.
LEACHING RATE	percentage leached				
Res Lawn total		0.3	0.1	0.2	200%
Golf Tees total		0.2	0.1	0.1	100%
Golf Rough total		0.2	0.1	0.1	100%
Clubhouse		na			

Gobler Report compared to Hills DEIS	Unit of measurement	GOBLER REPORT HILLS INCL GOLF COURSE AREA	HILLS PDD DEIS	GOBLER AMOUNT OVER HILLS DEIS	GOBLER % OVER HILLS DEIS
		Appear to use working LINAP regional numbers	Uses site specific numbers recommended by Dr. Petrovic of Cornell University in the DEIS		Will overstate the amount of net nitrogen from fertilizer accordingly
NET IMPACT		Overstates Fertilized Area, Fertilizer and Leaching Rate compared to the DEIS	Utilizes specific recommendations from Dr. Petrovic, manages the entire property using the Hills ITHMP, minimizes the use of fertilizer		Gobler report results in an overestimate of approximately 1800 pounds net of nitrogen