DiPrete Engineering

October 22, 2021

Steven Cabral
Crossman Engineering
151 Centerville Road
Warwick, RI 02886

RE: Newport National West Course
Middletown, RI
Project #: 2569-001

Dear Mr. Cabral:

DiPrete Engineering has received your comments dated August 30, 2021. We have reviewed these comments and offer the following in response. The original comments are provided in italics with responses in bold.

All Comments:

1. *The drainage design focuses on two (2) design points, Mitchells Lane and the combined flow of Wyatt Road and Maidford River. Some general observations of the analysis that need to be addressed are:*

   1.1 *Based on the topography provided, Mitchells Lane has a high point adjacent to the property, therefore there are two (2) distinct Mitchells Lane watersheds. Therefore, the existing and proposed flows to the Mitchells Lane Northward flow (Little Creek Watershed) and Mitchells Lane Southward flow (Paradise Brook Watershed) need to be determined.*

   We have determined the (2) distinct watersheds for Mitchells Lane and have updated the Watershed Maps and Stormwater report accordingly.

   1.2 *The post-development stormwater runoff peak flow rates and volumes reported to Wyatt Road for all storm events appear to only depict the Irrigation Pond's weir overflow but not the Pond's primary discharge from the new 24-inch outlet pipe. As visually depicted on the Routing Diagram, the Irrigation Pond Node 116P only shows the "dashed red line" Secondary Outlet (70 ft long weir) routing stormwater runoff to the discharge swale. The Primary Outlet (24" diameter outlet pipe from the outlet control structure) appears to be unaccounted for in the stormwater analysis. For example, the 100-year storm event shows 31.96 CFS leaving the 24" outlet pipe from the Irrigation Pond and 81.28 CFS overtops the spillway but the Swale (Reach Node 122) only shows 81.28 CFS leaving the site to Wyatt Road.*

   The revised analysis reports the composite outflow from the irrigation pond.

   1.3 *A comparison of the existing and future flow being directly discharged into Wyatt Road needs to be provided, as opposed to combining the direct flow with the Maidford River flow. For example, it appears that the existing 100 Year discharge volume into Wyatt Road is 18.15 acre-feet and under proposed conditions, it will increase to 38.40-acre feet, a substantial*

increase. The net flow and volume change that flows directly into the Maidford River wetland system upstream of Wyatt Road should also be identified.

The new irrigation pond design is proposed to release a total of 25.4 acre-feet but over an extended period (greater than 72 hours). The peak flow discharging just upstream from the Maidford River will drop significantly from 149.69 cfs via overland sheet flow crossing the rifle club driveway, to 63.07 cfs (Irrigation Pond + Post-02A Uncontrolled Wyatt). Therefore the magnitude of water bypassing the culverts beneath the Rifle Club will be significantly decreased from pre to post-development conditions.

1.4 The Irrigation Pond details should be more reflective of the actual conditions and depict the 20+ foot deep excavation below grade and depict the groundwater levels. Also, the material for the berm is called out to be loam but loam is not a suitable pond embankment fill material. Additional details of the pond liner system and the need to dewater during its installation should be addressed.

The proposed pond grading as compared to existing grade is depicted on Sheet 7 of the plan set. The notes within the Irrigation Pond detail on Sheet 11 reference the liner to be used and address groundwater (see notes 7, 8 and 9). Detailed construction means and methods will be prepared by the contractor in coordination with the project engineer prior to construction, and this will be submitted to the Town Engineer and Building Official for review and signoff prior to the irrigation pond work.

1.5 The existing and proposed watershed maps indicate that runoff from the site along the southerly limits will drain to the Town soccer fields, but a Pre- and Post-development analysis of runoff conditions flowing into the Town fields was not performed.

There is an existing natural swale along the southern boundary of the site. Existing as well as following construction this swale will continue to convey overland runoff from the site towards the wetlands (flags 1000-1041).

1.6 The volume of water to be used for irrigation and the source of irrigation should be clarified. Will irrigation depend solely upon the collection of surface runoff or will wells be installed to fill the irrigation pond?

The irrigation pond will be recharged entirely with surface runoff. KD to provide irrigation table used for DEM. A water balance summary based on anticipated demands, per experience with the existing Newport National course, is attached to this letter. Based on the average yearly precipitation, there will be a net surplus of irrigation water (inflow is greater than irrigation demand).

1.7 The design is seeking a waiver from the recharge standards. With limited impervious surfaces (rooftops, slabs and the 4-acre impervious lined pond), the need for a waiver does not appear justified.

Due to high ambient groundwater conditions throughout the site, there was no infiltration calculated for the stormwater design. However, there will be natural infiltration occurring throughout the site due to the filtering Drain Inlets (typical shown on Sheet 11).

The calculation of Pond Storage Area + Building / Walkways results in a total impervious area of 5.1 acres. With a recharge factor of 0.25 for C soils, we calculate a total recharge volume of 4,627 cubic feet. Assuming approximately half the drainage structures have sufficient

separation to groundwater for a balanced site (half structures below grade/half above grade), each structure would require 62 cubic feet of infiltration. Taking away the storage within the sand + gravel layers and surface storage of 20 cubic feet, the amount of stormwater needing to infiltrate through the bottom and sides is 42 cubic feet.

The bottom and side interface of the drain basin totals 62.8 square feet. Therefore, the rate of infiltration needed for a sufficient recharge volume is 42 c.f. / 62.8 s.f. = 0.67 inches per hour. This infiltration rate will likely be met through the use of a mix of sandy loam (1.02 incher per hour) and loam (0.52 inches per hour).

2. *The Existing Condition's time of concentration flow path for Pre-12, Wyatt Direct (Subcat Node 12), appears too short (length wise) and is possibly exaggerating the existing peak flow rates entering Wyatt Road. For example, the design point is Wyatt Road but the time of concentration flow path terminates approximately at the halfway point along the flow path. Based on the topography provided, the flow path should begin at the northeast point of the watershed and extend westerly and then southerly all the way to Wyatt Road. This will increase the time of concentration and decrease the existing peak flow rates.*

   A majority of the time of concentration for Pre-12 is borne out of the sheet flow segment. Also note that there is an existing natural swale formed against the stone wall at the line of trees, and this swale is directed to the wetlands series 1000-1041. Therefore it is not appropriate to continue this time of concentration all the way to Wyatt Road, and this also means the portion of Pre-12 on the west side of the swale is conservatively modeled with the larger time of concentration rather than splitting this area into a separate subcatchment with larger sheet flow slope resulting in a shorter time of concentration.

   The time of concentration could be slightly increased by a matter of a minute or two through starting northeast and using the north/south length of the swale into the wetland area. However, based on the above as well as the magnitude of decreased flow from Pre to Post-development conditions, it is our opinion that there is no significant benefit to updating this time of concentration along with splitting up the western portion of the subcatchment. Therefore, the analysis remains as originally calculated for this area.

3. *Similar to Comment 2, the Existing Conditions time of concentration flow path for Subcat Node 13 appears to only travel half of the actual "most distant path" of the watershed. The flow path should also account for ponding in the wetlands on the southside of the subwatershed. This revision will impact the existing direct discharge into the Maidford River stream system.*

   Much like Pre-12, there is a natural north/south swale ahead of a stone wall, which flows northward into the R1 to R16 wetlands area. As described above, we feel the additional minimal amount of time added to the east portion of the subcatchment would be offset by a split western subcatchment with much shorter time of concentration flowing into the 101 to 113 and 311 to 328 wetlands. Therefore, the analysis remains as originally calculated for this area.

4. *The outlet control structure for the proposed Irrigation Pond directs the 24" outlet pipe in the direction of the Newport Rifle Club parking lot. A proposed 5' x 2.5' riprap swale intercepts that flow and ultimately discharges runoff via a level spreader into the northern shoulder of Wyatt Road. Details of the swale and elevations of the level spreader should be provided. We also recommend discussions with DPW to assess the feasibility of extending the outlet pipe westerly in the Wyatt Road right-of-way and discharging directly into the Maidford River to improve runoff conditions of Wyatt Road, while not increasing flows into the river*

We have revised the outlet from the irrigation pond to no longer discharge to the surface downstream of the pond. The outflow from the outlet structure will remain underground within an 18" pipe. This outflow pipe will tee to the existing driveway culvert crossing just east of the Rifle Club driveway. A concrete box structure will allow for the flow to change direction as well as allow for new inlet openings to the east for accepting the existing swale flow.

5. *The Drain Inlet Detail on Sheet 11 (Detail Plan 2) indicates that all proposed catchbasin / yard drain structures are to be vertical "smooth wall corrugated plastic pipe (size varies)" with a cast iron frame and grate. The diameter of these vertical pipe CB/yard drain structures are not specified on the drainage tables for each structure. The inlet and outlet pipes range from 6" to 30" in diameter. Therefore, we recommend that the Catchbasin diameter per inlet/outlet pipe sizes be clarified.*

   We have provided a column on the drainage tables, found on Sheets 6 and 7 ("Grading and Utilities Plan-1" and "Grading and Utilities Plan-2"), showing the Drop Inlet Pipe Diameter for each catch basin / yard drain structure.

6. *At the northeast corner of the site (Sheet 2 (Overall Site Layout Plan)) identifies a 12' wide maintenance path with 4' vegetative buffer each side which runs along an existing maintenance easement (identified on Sheet 6). These easements appear to run along the northerly property lines of AP 123, Lots 8 and 9. It was not evident if this is an existing path or if this represents new construction with a need for additional screening.*

   The southern maintenance path (12' wide) along the northern boundary of Lot 9 is located in an existing disturbed area. The northern cart path (8' wide) along the northern boundary of Lot 8 is in an undisturbed area, and therefore a 6' vegetative buffer is proposed for each side of the path.

7. *Sheet 10 (Detail Sheet 1) identifies an 8" diameter inlet pipe on the sewer pump station detail but Sheets 8 and 9 (Clubhouse Plan 1 and 2) show a 6" sewer. Also, the sewer pump station detail has design elevations which do not correspond with this site.*

   Sheet 10 (Detail Sheet 1) has been revised to show a 6" sewer per Clubhouse Plan 1 and 2. The design elevations shown on the sewer pump station detail have been updated to correspond with this site.

8. *The "Trail/Trench Section through Wetland Crossing Detail" Sheet 11 (Detail Sheet-2) shows the sewer force main construction between the trail and wetland edge (LOD). Sheets 8 and 9 (Clubhouse Plan 1 and 2) show the sewer force main centered between the wetland edges and beneath the trail. The detail or Plan should be revised to reflect what is proposed. Also, the detail shows a 4" waterline installed on the opposite side of the trail but the water line location was not readily evident on the site plans. It was not clear which will be built.*

   The sewer force main shown in the "Trail/Trench Section through Wetland Crossing Detail" on Sheet 11 (Detail Sheet-2) has been updated to accurately reflect the location shown on Sheets 8 and 9 (Clubhouse Plan 1 and 2). The proposed waterline has been routed out to tie in at Wyatt Road. The 4" waterline shown installed on the opposite side of the trail has been removed from the detail as it is not applicable.

9. *On Sheet 12 (Detail Sheet 3) the Flyover Vegetation Notes should be updated to include the Notes Per DEM as shown on the RIDEM approved plans*

   The Flyover Vegetation Notes, shown on Sheet 12 (Detail Sheet 3), have been updated to include the Notes Per DEM as shown on the RIDEM approved plans.

10. *The Landscape Layout Plan (Sheet L1.0) identifies a 6" deep x 5' wide bioretention swale along the west edge of the proposed parking area but Grading and Utilities Plan 1 (Sheet 6) identifies this BMP as a 9" deep x 4' wide sand filter. The Landscape Plan callout should be revised to match the grading and drainage design. We also recommend that the sand filter be extended northerly to the northwest corner of the maintenance yard to assure runoff from the maintenance area and northern tip of the parking lot drains to the sand filter, as intended. There is a Plan callout for "berm to direct runoff to swale" in the parking lot, south of the maintenance yard, but it was not clear how runoff from the maintenance yard or northern parking end will reach the sand filter*

    The sand filter has been extended northward to capture the Maintenance Yard via overland flow. The language within the Landscape Plan has been updated and this plan will be submitted under separate cover.

11. *The Overall Site Layout Plan (Sheet 2) shows the proposed pervious parking area, driveway, and ALT parking areas in a gravel hatch that does not appear to correspond with the legend. Also, the "Golf Cart Parking (Pervious Parking Surface and Soft Sided Tent)" and "Event Area" are hatched with the same pattern corresponding to the Asphalt Sidewalk hatch in the legend. We would like to clarify the materials to be used.*

    We have revised the proposed pervious parking area, driveway, ALT parking areas hatch shown in the legend to correspond with the hatch shown on The Overall Site Layout Plan (Sheet 2). The "Golf Cart Parking (Pervious Parking Surface and Soft Sided Tent)" and "Event Area" hatch, and the "Concrete Sidewalk" hatch, have also been updated to correspond to what is shown on the site plan.

12. *Sheet 11 (Detail Sheet 2) provides a typical concrete dumpster pad detail, but it was not evident where the dumpster would be located and how it would be screened. We also did not see a typical detail of materials or screening proposed for the maintenance yard.*

    We have shown the dumpster location on "Clubhouse Plan -1" (Sheet 8) and have included concrete pad and screening fence details for the maintenance yard and dumpster area on "Detail Sheet-2" (Sheet 11).

13. *Landscape Plan L1.1 calls out for a pervious pavement, pervious path and pervious patio surrounding the clubhouse, but the only evident detail is on Sheet 12 (Detail Plan 3) which provides a Typical Pervious Driveway & Parking Areas Detail. Similar to comment 11, we would like to clarify the materials to be installed. The reason for the question is that these areas appear to be considered grass in the stormwater analysis.*

    The legend on Sheet 2 and the cover types shown elsewhere in the plan set have been aligned to properly show the pervious and impervious areas as applicable.

14. *Note: This initial review did not verify the yard drain structure and pipe data provided in the drainage structure tables. However, the outlet control structures of BMPs have been reviewed.*

The pipe data has been updated with the appropriate structure diameter to accommodate the inlet/outlet pipes as described in response #5.

15. *Clarification is needed concerning the Runoff Curve Numbers used. The post-development stormwater analysis does not appear to use the correct curve number for the proposed cart paths, the pervious driveway and parking areas. The analysis appears to use the equivalent of grass (Runoff Curve Number of 74). A detail was provided on Sheet 11 (Detail Plan 2) for "Cart Path Wetland Buffer Crossing" which depicts 4" of clean blue stone surface (the gradation should be provided) on top of 6" of R-2 riprap. Sheet 12 (Detail Plan 3) provides a Typical Pervious Driveway & Parking Areas Detail, which shows 6" dense graded clean crushed stone, on top of 6" dense graded crushed stone base, on top of an 8" gravel borrow subbase. Based upon the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM), Section 5.4 Table 5-5, the corresponding Curve Number for the proposed pervious pavement structure should be 93 for design purposes (Hydrologic Soil Group C with a 6" reservoir course), as opposed to 74*

    The pervious cover on this site does not propose a porous "blacktop" finish, instead the top stone course above the stone and gravel base layers will be directly allowed to infiltrate stormwater. As per the HydroCad direction for "Special" conditions, there is an equation that approximates the appropriate curve number for porous layers over an impervious surface: https://www.hydrocad.net/curvenumber.htm

    CN = 1000 / (S+10) where S is in inches and is the equivalent open depth (voids x layer depth)

    The pervious driveway and parking area has a total stone/gravel depth of 20" as shown on the detail on Sheet 12. With a void ratio of 33%, The S value will be 20 x 0.33 = 6.67". Therefore, the composite curve number for this surface is calculated as:

    CN = 1000 / (6.67+10) = 60.

    As opposed to using this low a CN number, we held the same CN of 74 consistent with surrounding proposed ground cover as well as the existing ground cover.

16. *As previously noted, we are concerned that a significant portion of stormwater runoff generated onsite during post-development conditions will bypass the existing wetland areas, which currently provide a level of natural attenuation upstream of the Maidford River/Wyatt Road crossing. We are also concerned with an apparent increase in stormwater runoff to Wyatt Road. For example:*

    During the 100-year storm event, existing Watershed Area Pre-3 Maidford North (Subcat Node 13) is 60 acres in size and shows 257 CFS and 27.526 acre-feet (1.2 million cubic-feet) of runoff directed to the Maidford River and wetland areas north of the Wyatt Road crossing. During the 100-year storm event, existing Watershed Area Pre-2 Wyatt Direct (Subcat Node 12) is 40 acres in size and shows 150 CFS and 18.150 acre-feet (790,614 cubic-feet) of runoff directed to the northern shoulder of Wyatt Road. During post-development conditions, adding the Primary (24" outlet pipe), the Secondary (spillway) discharges from the Irrigation Pond (Node 116P) and the uncontrolled runoff to Wyatt (Subcat Node 102A) yields 31.96 CFS + 81.28 CFS + 46.49 CFS = 159.73 CFS and 38.648 acre-feet (1.68 million cubic-feet) of stormwater runoff to Wyatt Road.

    The design should be revised to demonstrate there is no increase in stormwater peak flow rates to both the Maidford River (north of Wyatt Road crossing) and to Wyatt Road. Additionally, the watershed analysis should include a pre- and post-development analysis

of stormwater runoff generated on site draining towards the Newport Rifle Club and Town soccer fields.

As noted above in response 1.3, the peak flow towards Newport Rifle Club decreases significantly with the new proposal to drawdown the pond in advance of the 100-year storm and provide outflow entirely through the underground 18" outlet pipe.

17. *Section 153.21 A (1) of the Middletown Stormwater Ordinance requires the post-development peak discharge rates from the 2-year frequency storm event to be maintained at or below pre-development rates. This analysis was not included in the stormwater report*

    This analysis was added to our flow tables.

18. *The Irrigation Pond has a proposed top elevation of 161.00. The 100-year storm event yields a peak ponding elevation of 160.57, which results in a 5-inch freeboard. The Rhode Island Stormwater Design and Installation Standards Manual (RISDISM) recommends a minimum 1-foot of freeboard during the 100-year storm event. The pond outlet controls or top elevations should be revised to meet this standard.*

    The peak 100-year storm elevation has now been reduced to 160.02, therefore we now provide approximately a 1-foot freeboard (0.98').

19. *Section 3.3.6, Table 3-7 of the RISDISM requires a downstream analysis for projects with greater than 50 acres of land disturbance, regardless of the impervious cover. Post-development Subcatchment 102-B (Flow to Irrigation Pond) is 77.4 acres in size. The RISDISM provides parameters for the Downstream Analysis*

    Due to the magnitude of decrease in peak flow and volume provided at the Wyatt Road culvert crossing (DP-2), it is our opinion that this downstream analysis is unnecessary:

    Ex 100-year storm event Reach 22 / DP-2: Outflow = 398.58 cfs @ Volume = 45.676 ac-ft
    Pr 100-year storm event Reach 124 / DP-2: Outflow = 126.03 cfs @ Volume = 37.911 ac-ft.

20. *We also recommend discharges leaving the Irrigation Pond are "conveyed through properly constructed watercourses to provide for nonerosive flows for all storm events" (Middletown Stormwater Ordinance Section 153.21 A (3)). Options to avoid surface discharge into Wyatt Road should be considered. Similarly, Section 153.21 C (5), states that the drainage system discharges "will be installed and connected to a defined and approved watercourse". The surface discharges towards Wyatt Road does not appear to represent a defined and approved watercourse.*

    As noted above and shown on the revised plans, the revised Irrigation Pond outflow will be conveyed entirely from the outlet structure to the existing Rifle Club driveway culverts via 18" drainage pipe. From the new drainage structure to the east of the Rifle Club driveway, the stormwater flow will discharge through these culverts directly into the Maidford River just upstream of the Wyatt Road culvert.

21. *The Outlet Control Structure Detail on Sheet 12 (Detail Sheet 3) shows a Catchbasin Double-Frame and Grate but the HydroCAD calculations model the outlet control structure as one large 24"x48" horizontal rectangular opening. The modeling does not factor in the actual open area of a catchbasin grate and should be revised.*

If one large single opening is proposed, the Outlet Control Structure Detail should be revised to include a sump and trash rack over the outlet control orifices to minimize the likelihood of trash, litter, sediment and debris leaving the pond and entering Wyatt Road

We have revised the Outlet Control Structure Detail on Sheet 12 (Detail Sheet 3) to show a Dome Grate attached to the horizontal rectangular opening to correspond to the HydroCAD calculations model and to minimize the likelihood of trash, litter, sediment and debris leaving the pond and entering Wyatt Road. The size of openings of this dome grate will be greater than the open area of the structure and therefore the structure area remains as the limiting factor in the analysis.

22. *We could not find any soil evaluation data within the proposed stormwater BMP areas or within the 4+ acre footprint of the proposed Irrigation Pond. The grading for the pond proposes up to 25- foot-deep cuts towards the northern limits. Although the material within the pond excavation is proposed to be removed (and blasted if ledge is encountered) and the pond is not designed for infiltration, soil and groundwater data would be useful to assess temporary impacts during construction. It would be also beneficial to know if the sand filters with an underdrain will or will not intercept groundwater.*

    Ledge tests were previously performed by Geisser to a depth of approximately 20' with no ledge encountered within the footprint of the proposed irrigation pond. There is seasonally high groundwater, which will be dealt with via performing construction during the dry season if possible and pumping with sediment screening during the deep excavations prior to liner installation.

    The bottom surface of the sand filter is approximately 1'-2' above grade for the entirety of its length. Therefore, the bottom of sand/underdrain will be located approximately at the interface of the A/B soil horizons, and no groundwater interception is anticipated only 6" below the existing grade.

23. *Minor typo on Post-Development Watershed Map: Irrigation Pond is identified as Pond Node 111 on the map, but HydroCAD identifies is this as Pond Node 116. The Post-Development Watershed Map also shows a Reach Node 123 over the Maidford River north of Wyatt. This Node did not appear in the HydroCAD model*

    We have updated the Post-Development Watershed Map to accurately depict Node numbers.

24. *If there is not a dense tree area between Fairway 2 and the Town's soccer fields, consideration should be given to adding a protective netting to block golf balls*

    Per the golf course architect, Shawn Smith, ASGCA, of Hills-Forrest-Smith, the industry standard offset from the landing area stake to an adjacent residential property line is 150'-175'. On NNGC, the hole #2 landing stake is 185' from the property line, 235' from soccer field fill pad and ~250' to the goal pad. So it is very unlikely many shots will ever reach the soccer fields. In addition, it is the endline area of the soccer field which is closest to hole #2, with spectators to the soccer game typically gathering closer to midfield and not near an end goal. The applicant also feels the aesthetics of a net would be a detriment to both the soccer fields and the golf course.

25. *The Traffic Impact Study review is ongoing and will be provided prior to the TRC*

    Acknowledged

Please feel free to contact me if you have any further questions regarding this matter.

Sincerely,
DiPrete Engineering Associates, Inc.

Kevin DeMers, PE
Project Manager
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Newport National Golf Club Water Usage

Year	Total Water Purchased (gallons)	Total Water Used (gallons)	Total Water Used (cubic feet)	Approx Avg Daily Water Used (cubic feet)	x2 (East & Prop West Course) (cubic feet)
2019	0	12,279,660	1,641,791	4,498	8,996
2018	6,998,000	15,158,781	2,026,729	5,553	11,105
2017	2,505,197	11,217,915	1,499,835	4,109	8,218
2016	11,181,379	22,250,743	2,974,924	8,150	16,301
2015	7,357,100	18,839,801	2,518,881	6,901	13,802
2014	4,754,400	18,852,481	2,520,577	6,906	13,811
2013	1,829,700	19,652,478	2,627,536	7,199	14,397
2012	5,156,100	19,744,577	2,639,850	7,232	14,465
2011	3,373,700	15,903,280	2,126,269	5,825	11,651
2010	9,136,400	22,405,689	2,995,641	8,207	16,414
2009	220,100	12,635,004	1,689,300	4,628	9,256
2008	7,170,600	21,805,934	2,915,453	7,988	15,975
2007	15,713,300	28,620,204	3,826,521	10,484	20,967
2006	4,717,300	17,723,461	2,369,627	6,492	12,984
2005	16,772,600	23,975,213	3,205,486	8,782	17,564
2004	4,520,700	16,444,502	2,198,630	6,024	12,047
2003	3,031,700	10,134,762	1,355,018	3,712	7,425

Average Daily Water Use =	13,258	cubic feet
Yearly Water Use =	4,839,067	cubic feet
Daily Storage from Low Flow to 1st Outlet =	183,580	cubic feet
Yearly Storage =	67,006,700	cubic feet
Yearly Precipitation =	47.7	inches
	8,705,030	Correlated to 100-yr runoff outflow from Irrigation pond subcat
Pond storage from bottom to 156.5 outlet =	1,829,368	cubic feet
Storage during drought conditions =	138	days