

CHGC - SUSTAINABILITY

Progress Update 2025



KEY STRATEGIES

- Decarbonisation
 - Road to net zero by 2030 by dramatically reducing carbon footprint
 - Replace gas boiler, ovens and hobs
 - Replace diesel powered greenkeeping equipment
- Recycling
 - Eliminate single use plastic and paper towels
 - Dedicated recycling bins
- Water Storage and Resilience Strategy
- Electricity Self Sufficiency
 - Solar pv project(s)
 - Battery storage



CHGC - SOLAR PV



ELECTRICITY SELF SUFFICIENCY

- Why do we need a solar PV array ??
- Why do we need to start generating our own electricity now ??
- Where will we locate the solar array ??
- How much will it cost to install the solar array ??
- What is the decision process ??

WHY DO WE NEED A SOLAR ARRAY ??

- Carbon Reduction
 - To save 67.8 Tonnes CO2 per annum
 - Equivalent of planting 3,113 trees
- Electricity Self Sufficiency
- Electricity consumption likely to rise
 - Currently 220,000 kWh per annum
 - Replace gas ovens and hobs
 - Replace diesel greenkeeping equipment
 - Replace gas water boiler



ROOF SOLAR - OUTPUTS

- 124 x 400W panels
- 49.6 kW top speed
- Actual cost **£49,400 + VAT**
- Returns to date
 - Generated 63,400 kWh
 - Actual savings £19,040 (72 weeks)
 - Forecast savings £13,000 per annum
 - Payback **3.8 years**
 - 27,023 lb (9.0 Tonnes) CO2 emissions saved
 - Equivalent 742 trees planted



GROUND MOUNTED - PROGRESS

- Early 2023 pre-application report received from Solihull MBC
 - Partly positive, partly negative
- Planning Application
 - Ecology surveys - May to end August
 - Further surveys - Aug to Dec 2023
 - Topography, Landscape/Visual,
 - Arboricultural, Glint/Glare,
 - Flood Risk, Ground Testing
 - and Heritage surveys
- Planning submitted January 2024
- Application costs - budgeted £35 to 40k



WHERE WILL WE LOCATE THE SOLAR ARRAY ??



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GROUND MOUNTED - TIMELINES

- Planning Application
 - Submitted 11/01/2024
 - Neighbour consultation 15/02/2024
 - Statutory consultation 21/02/2024
 - Determination 31/05/2024
- Issues to be Resolved
 - Grid Connectivity
 - Return on Investment
 - Membership Approval



CHGC - WATER STORAGE



WATER STORAGE - PROJECT RATIONALE

- Why do we need to store water ?
- Why do we need to start storing water now ?
- Where will we store the water ?
- How much will it cost to build a water storage facility ?
- What is the decision process ?





MET OFFICE FORECASTS FOR UK WEATHER

	CHANGES SO FAR	CLIMATE CHANGE?	WHAT IS EXPECTED IN THE FUTURE?
UK WARM SPELLS	INCREASE	YES	INCREASE
UK COLD SPELLS	DECREASE	YES	DECREASE
UK HEAVY RAIN	INCREASE	INCONCLUSIVE	INCREASE
UK DRY SPELLS	NO TREND	INCONCLUSIVE	INCREASE (SUMMER)
UK WIND STORMS	NO TREND	INCONCLUSIVE	INCREASE*

WHY DO WE NEED TO START STORING WATER NOW ??

- Hot summers - 1976, 1983, 2003, 2006, 2018, 2022
- Annual rainfall recorded at whitacre station on river blythe is 703mm (28 inches) per annum
- Probability of Environment Agency restricting our summer abstraction depends of river flows in our area
- Probability of Severn Trent restricting our use of mains water depends on severity of future droughts
- Next drought in 1 year, 3 years, 5 years, 50 years ???

WATER STORAGE - PROGRESS

- Original Abstraction Licence
 - From February 1993
 - April To End October Only
 - 55m³ Varied To 90m³ Per Day, 11,770m³ Per Year
- New Abstraction Licence
 - From March 2024 To March 2038
 - All Year Round
 - 90m³ Per Day, 21,000m³ Per Year
 - Condition - Water Storage Facility (Min 14,000m³) Within 3 Years
- Marcus White - Hydreau Ltd



WATER STORAGE RATIONALE



- Borehole Can Supply 90m³ Per Day
- Drought Situation - Course Requires 356m³ Per Day
- To Date Mains Water Used To Cover 266m³ Shortfall
- However
 - Severn Trent May Extend Hosepipe Bans To Commercial Clients
 - Environment Agency Can Restrict Summer Abstraction Licences
 - Course Dries Out Very Quickly
- Water Resilience Solution
 - Use Wintertime Borehole Extracted Water To Fill On-Site Water Storage Facility
 - No Ongoing Reliance On The Goodwill Of Severn Trent And/Or Environment Agency

WHERE WILL WE STORE THE WATER ??



WHY CAN WE NOT USE THE POND ON 13th ??

- Legislative and Licensing reasons
 - Water originating from streams, ditches and ponds = surface water
 - EA will not licence summer surface abstraction
 - Surface water needed for environmental and biodiversity reasons
- Practical reasons
 - To prevent seepage - need liner
 - Liner will float up



GOLF CLUB RESERVOIR - EXAMPLES



CAMS HALL ESTATE GC



THE HERITAGE - LONDON GC



ST. GEORGES HILL GC

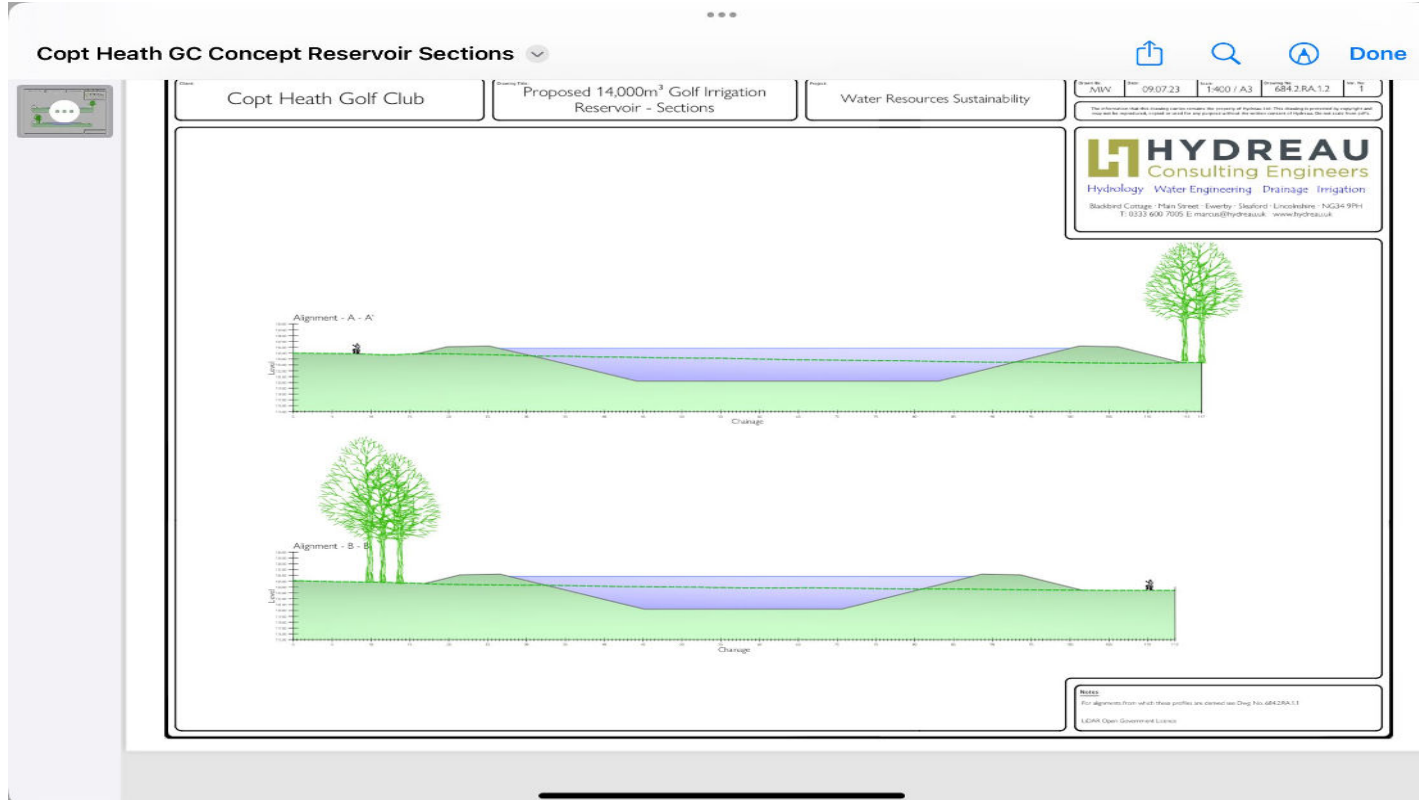


BURNHAM BEECHES GC

WATER STORAGE LOCATION



WATER STORAGE DESIGN



HOW MUCH WILL IT COST ??

ITEM	ACTIVITY	COST
1	FEASIBILITY - Ground Investigation, Topographic Survey, Hydreau Consulting	£5,585
2	PLANNING APPLICATION - Ecology Survey, Archaeology Survey, Hydreau Consulting	£19,885
3	CONSTRUCTION - Detailed Design, Excavation, Lining, Pumps, Pipes, Ancillaries, Hydreau Consulting	£405,000
	TOTAL (EXCLUDING VAT)	£430,470

WATER STORAGE - TIMELINES

- Abstraction licence - March 2024
- Membership approval - 2025
- Apply for planning permission - late 2025
- Spades in ground - Spring 2026
- Testing and completion - late 2026
- Filling of reservoir - Winter 2026/2027
- First useable water - Summer 2027
- Total cost **circa £400 to £450k**



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QUESTIONS ??