



**COMHAIRLE CHONTAE DHUN NA NGALL
DONEGAL COUNTY COUNCIL
COUNTY HOUSE, LIFFORD, CO. DONEGAL**

Tel: (074) 91 72222 Fax: (074) 91 41205 www.donegal.ie

**'DESIGN DATA' - INFORMATION REQUIREMENTS FOR
GROUP WATER SUPPLY SCHEMES**

1. The Design Engineer/Consultant should submit the following documentation.

(a) For Schemes of 50 Houses or over

A Preliminary Report including:-

(i) A general description of the proposed scheme.

(ii) Basic Design Data.

(iii) Layout map to a scale 6 inches to 1 mile (or metric equivalent).

After approval of the Preliminary Report, a detailed design and full documentation described at (2) below should be submitted.

(b) For Schemes of less than 50 Houses

A detailed design and the full documentation described at (2) below should be submitted.

2. At detailed design stage, the Group Scheme Promoter should request the Design Engineer/Consultant to provide the following documentation:-

1. Summary Report.

2. Key map to a scale of 1 inch to 1 mile (minimum A4 size) showing proposed scheme relative to other schemes in the area.

3. Layout map to a scale 6 inches to 1 mile (or metric equivalent) showing:-

(a) Routes and sizes of mains.

(b) Location of valves.

(c) Location and number of each house corresponding with members' numbers on Survey Sheets (G.W.1).

4. (i) Plans and Sections of pipelines to scale of 25 inches to 1 mile (or metric equivalent).

(ii) Detailed drawings of bridge, railway and river crossings.

(iii) Plans and Sections of intake works and pump house(s).

5. Schedule of piping materials and fittings in respect of each section.

6. Design Data as per the attached sheets.

Eight sets of documents 1 - 6 should be supplied to the Group Promoter.



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**'DESIGN DATA' FOR
GROUP WATER SUPPLY SCHEMES**

Name of Scheme _____

Name & Address of Organiser _____

Reference No. _____

No.	DEMAND CALCULATED FROM SURVEY SHEETS	LITRES
	Persons @ 180 litres/head/day Cows @ 135 litres/head/day	
	Dry Stock @ 45 litres /head/day	
	Other Stock @ 23 litres /head/day	
	Other needs (e.g. Agriculture, Horticulture etc.) in litres/day	
	TOTAL	_____
	Total requirement in m ³ per day	_____
	Average demand in m ³ per hour	_____

(a) Number of houses in scheme _____

(b) Number of equivalent houses in scheme _____

(c) Total number of houses (a) + (b) =N= _____

Yield of Source

Source	M ₃ per hour	Result of Continuous Yield Test		Date
Well No. 1		Duration of Test	Hours	
Well No. 2		Duration of Test	Hours	
Spring		As gauged from	to	

Capacity of Pumps

Output	M ₃ per hour	Operating pressures	
Pump No.		Cut-in	Cut out
Pump No.		Cut-in	Cut out
Pump No.		Cut-in	Cut out

Reservoir

Ground Level	T.W.L.	Capacity	No. of days Storage
M.O.D.	M.O.D.	M ₃	

DESIGN NOTES

1. 1 Equivalent house = 0.72 m³ (720 litres) per day based on agricultural demand.
2. Calculations for size of mains and distribution network are based on peak demand derived from the following formulae:-
 - (i) Peak demand = $0.82\sqrt{N}$ m³/hour, or $0.23\sqrt{N}$ litres/sec. where the total number of houses $N < 100$.
 - (ii) Peak demand = 2.5 times the average daily demand, where $N > 100$.

NAME, ADDRESS AND SIGNATURE OF DESIGN
ENGINEER/CONSULTANT

Name

Address

Phone No. _____

Signed:- _____

Date:- _____