Step 3: Design Your System (Calculate how much drip you can water at one time)

With your gallons per minute calculation, how much drip tape can you use at one time?

Gallons Per minute
/
gpm per 100ft

= number of 100 ft lengths

Find flow rate on label of drip irrigation package

- Example: 3.0 GPM per minute/100ft of drip tape

GPM of water source/GPM of Drip tape X 100ft

100 GPM/3.0 = 33.3

33.3 X 100ft = 3,330ft

Pump can handle 3,330ft of drip tape

22 lines, 150ft long

Step 3: Design Your System (Calculate how much drip you can water at one time)

Example: You have 60 lines of drip tape, each line is 200ft long.
The flow rate is 2 gallons per minute for every 100ft of drip tape.

# of lines of drip tape

X

Length of drip tape

= Total length of drip tape

Total length of drip tape / specified length

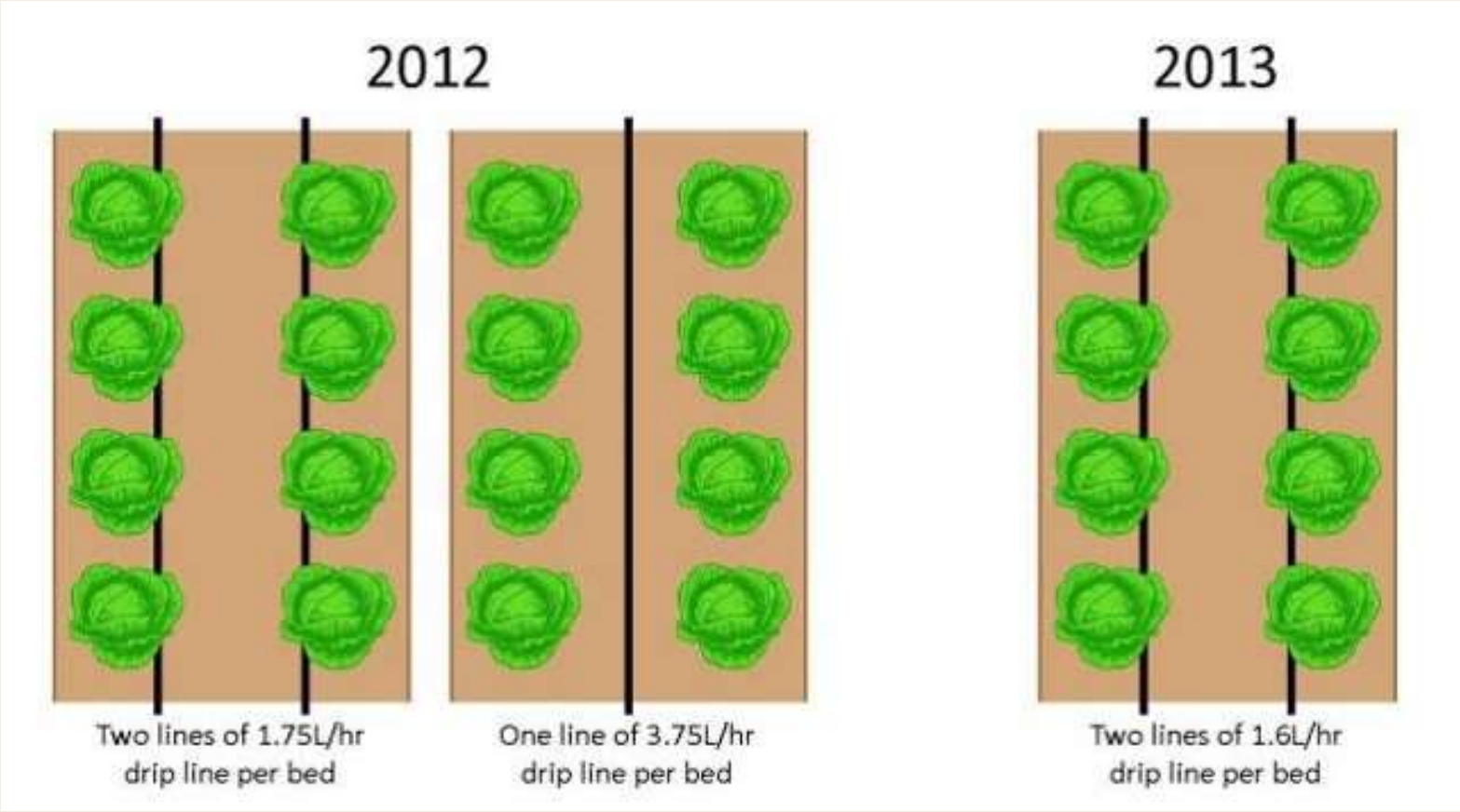
X

GPM of specified length

=Total GPM required

How much water do you need?

Row Spacing


2012
2013
Two lines of 1.75L/hr
drip line per bed
One line of 3.75L/hr
drip line per bed
Two lines of 1.6L/hr
drip line per bed

Underground Installation

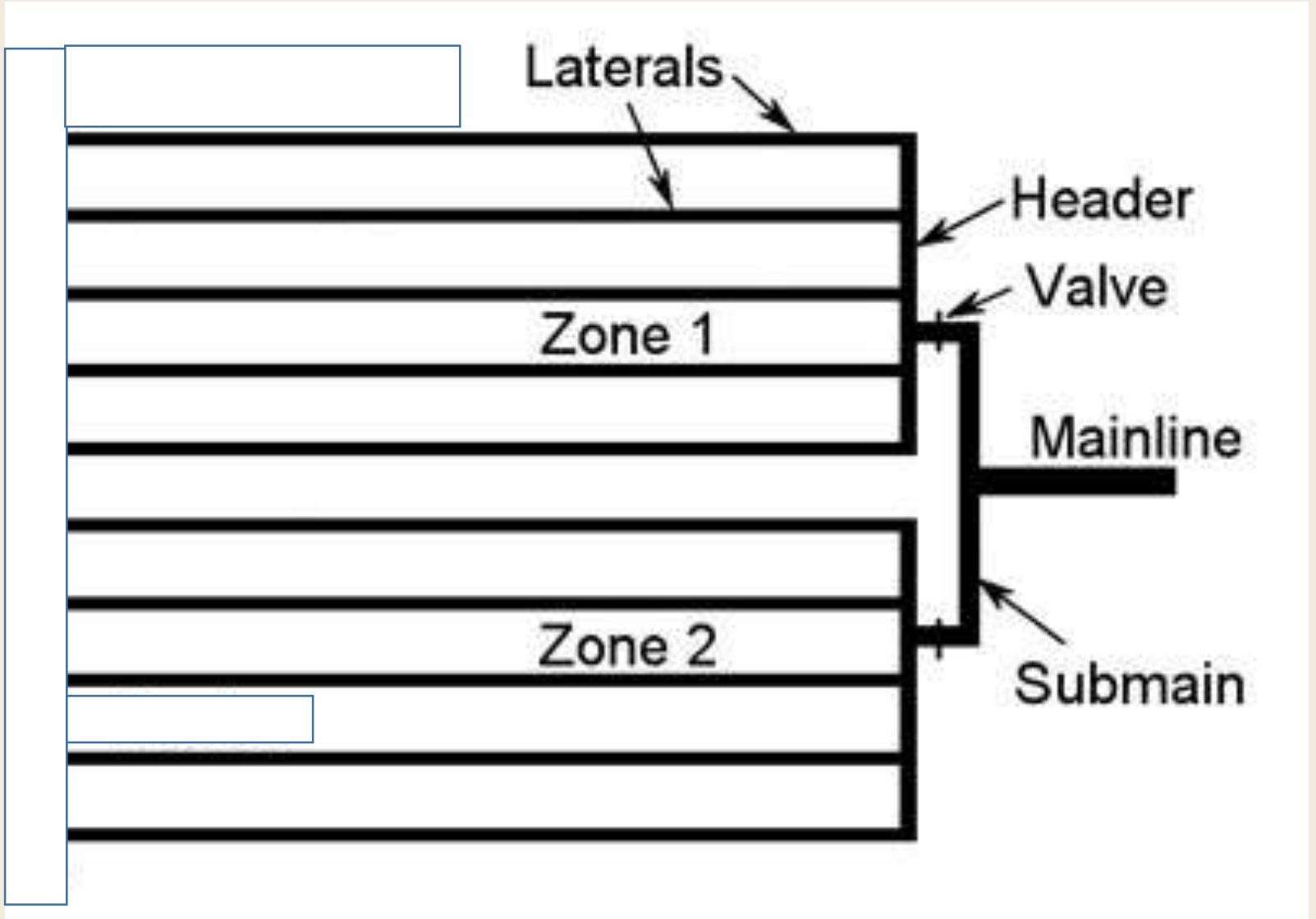
Pros

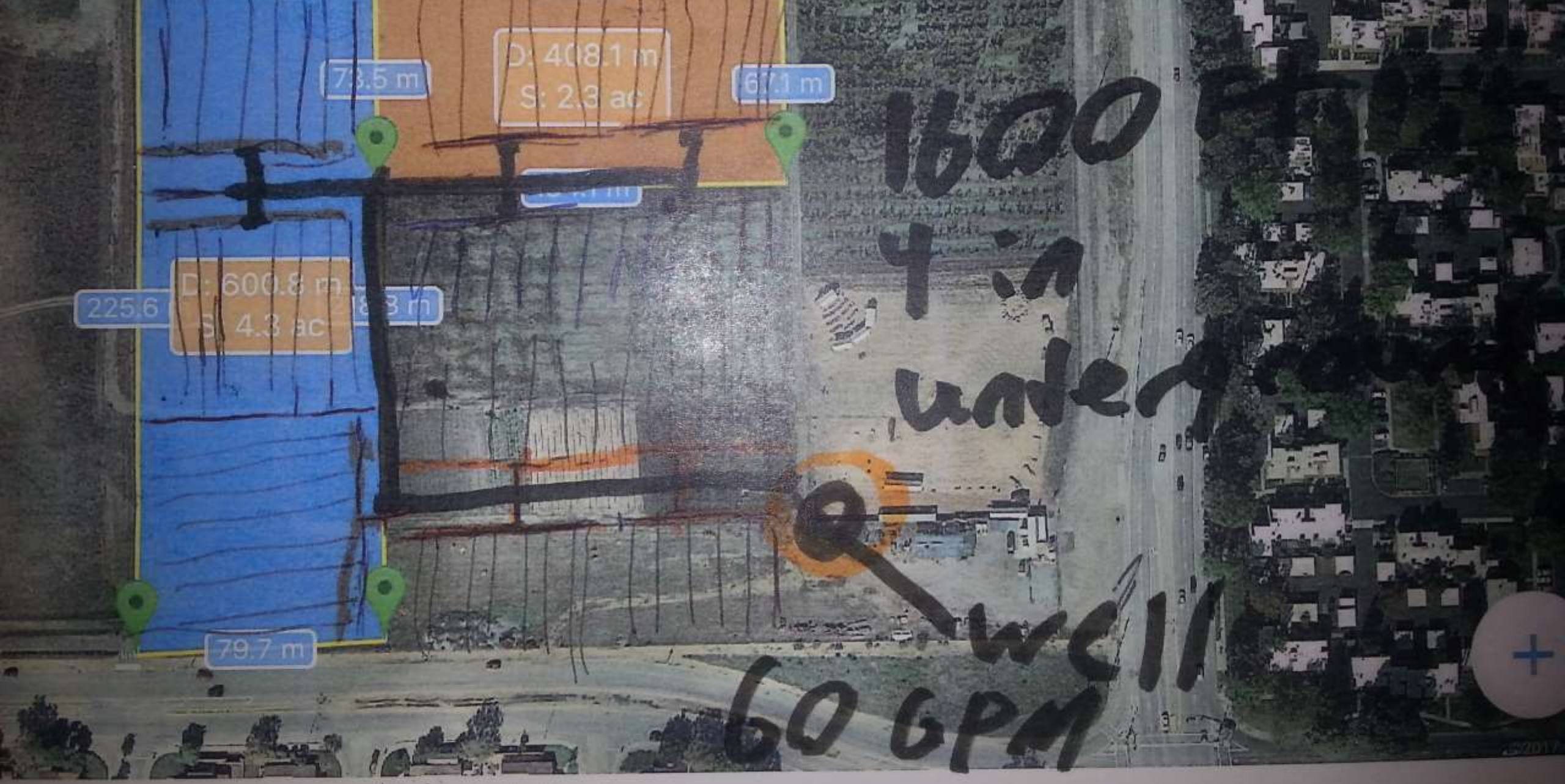
- You won’t drive over your pipes
- Once installed, easy to use
- Simply glue pipes together

Cons

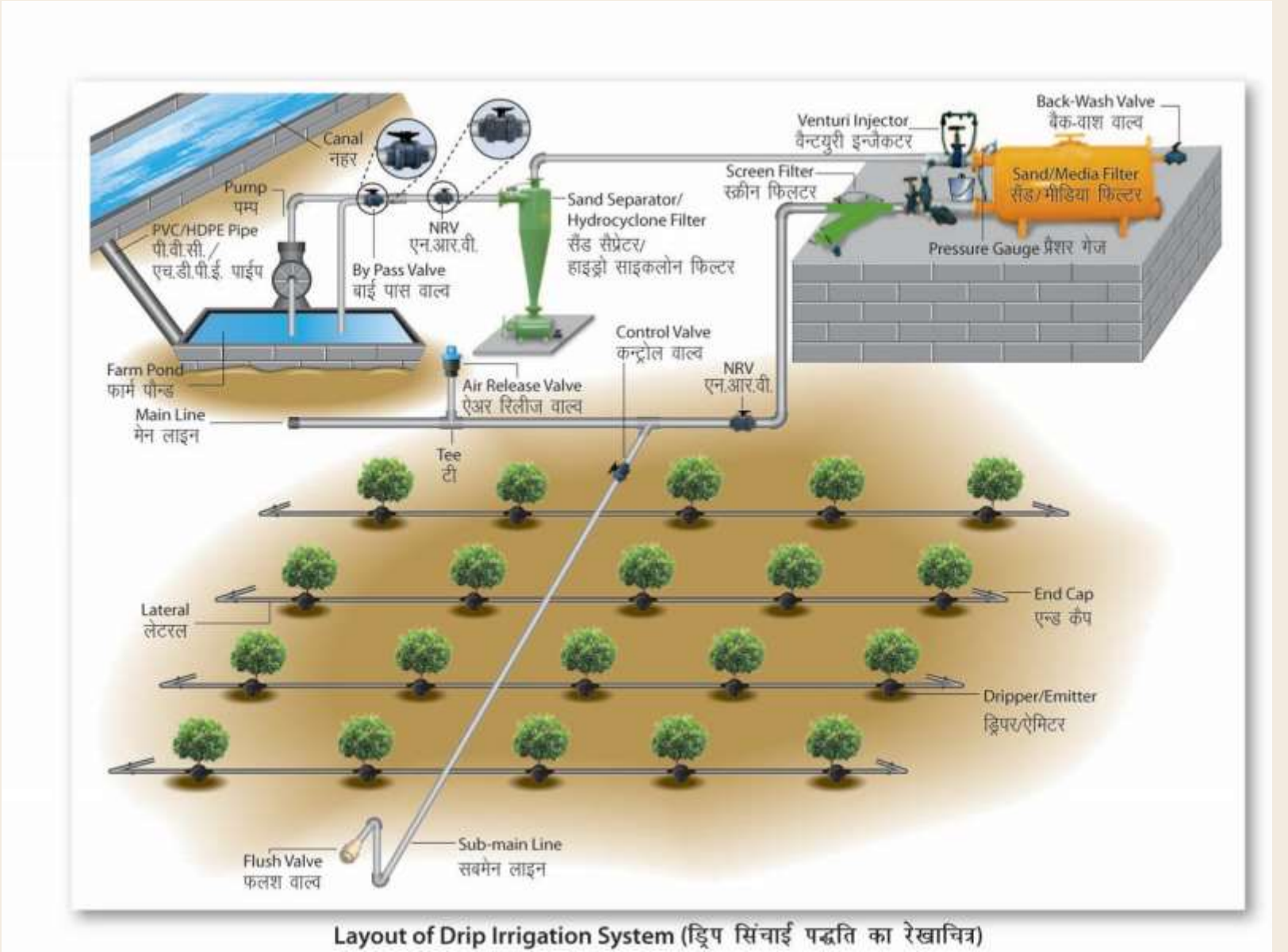
- Difficult to install in wet soil
- Difficult to repair if there is a leak

Layout of Drip Irrigation System




73.5 m
D: 408.1 m
S: 2.3 ac
67.1 m
225.6
D: 600.8 m
S: 4.3 ac
79.7 m
1600
4 in
under
well
60 GPM

Layout of Drip Irrigation System



Layout of Drip Irrigation System (ड्रिप सिंचाई पद्धति का रेखाचित्र)

Orchard Irrigation

Step 3: Design Your System (Trees)

You have emitters that water trees 2 gallons per hour. There are 2 emitters per tree. You want to give 100 gallons per tree per watering. Your orchard contains 300 trees.

How many gallons per minute do you need?

2 gallons/hour
X
2 emitters/tree
X
300 trees

=1200 gallons per hour

1200 gallons per hour
/
60 minutes

=20 gallons per minute

Step 3: Design Your System (Trees)

How long do you need to water?

2 gallons/hour
X
2 emitters/tree

=4 gallons/hour

100 gallons/tree
/
4 gallons/hour

=25 hours