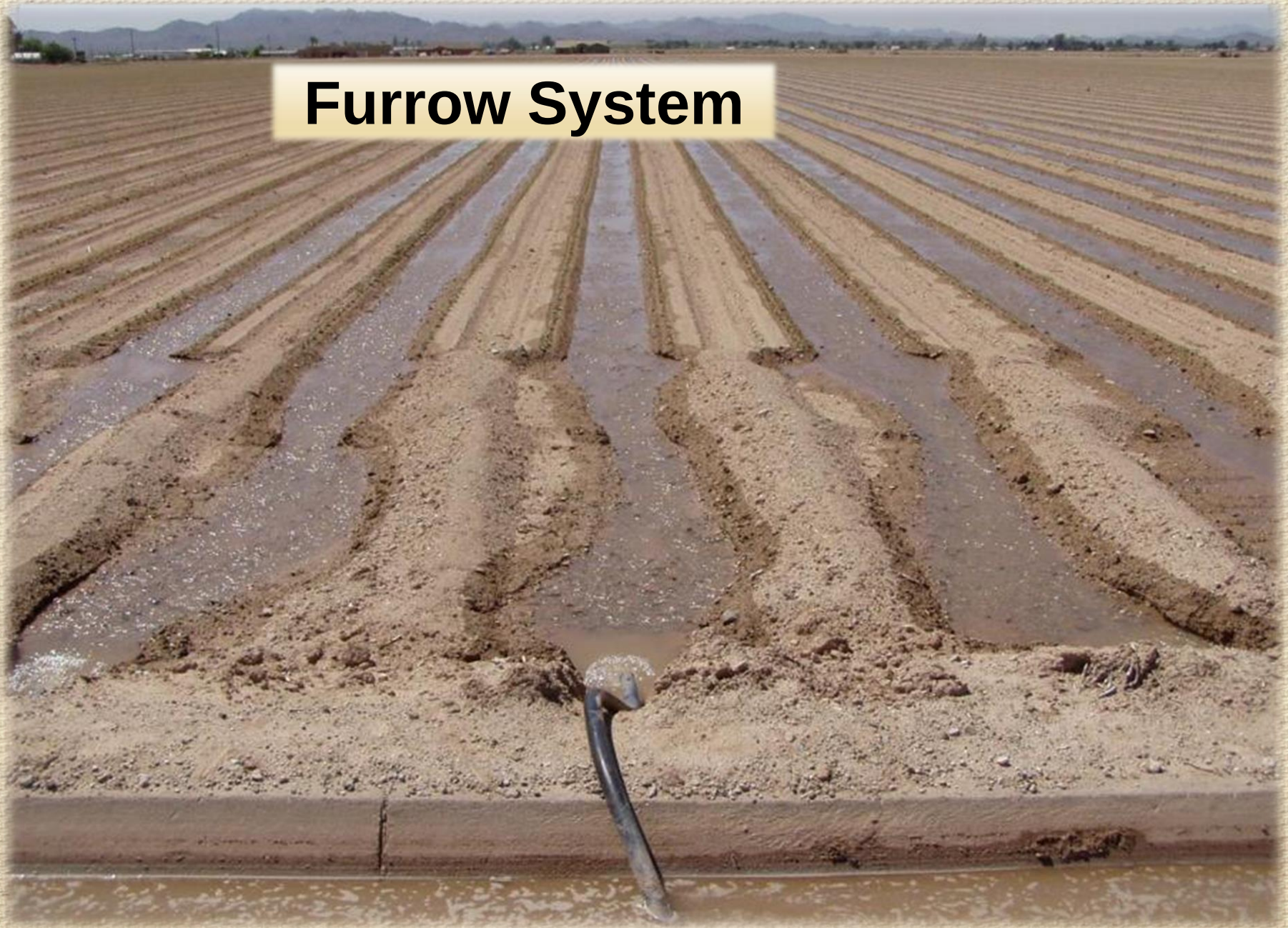
Surface Irrigation Systems


Flood System


Furrow System

Border System

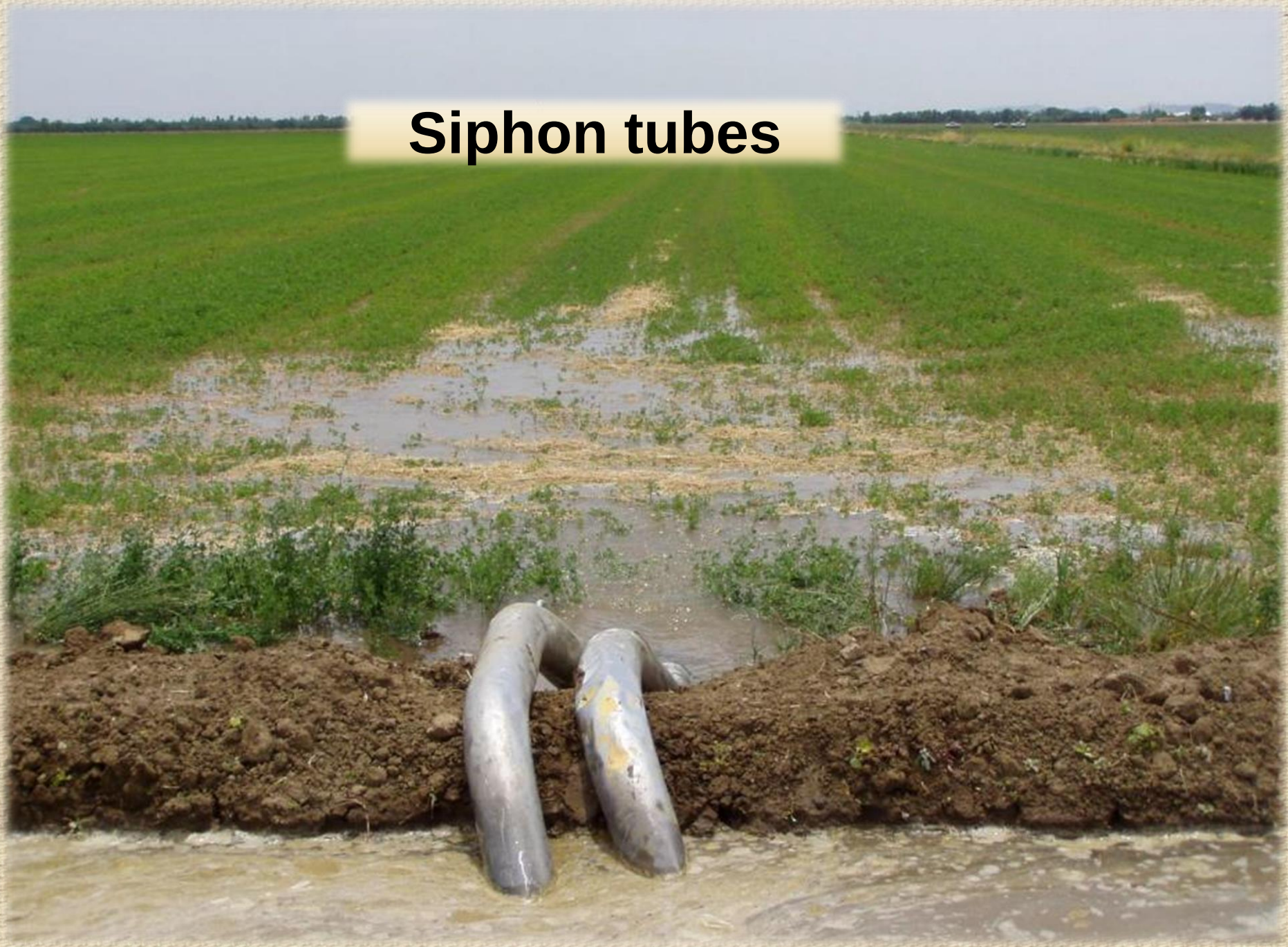
Contour Levees system

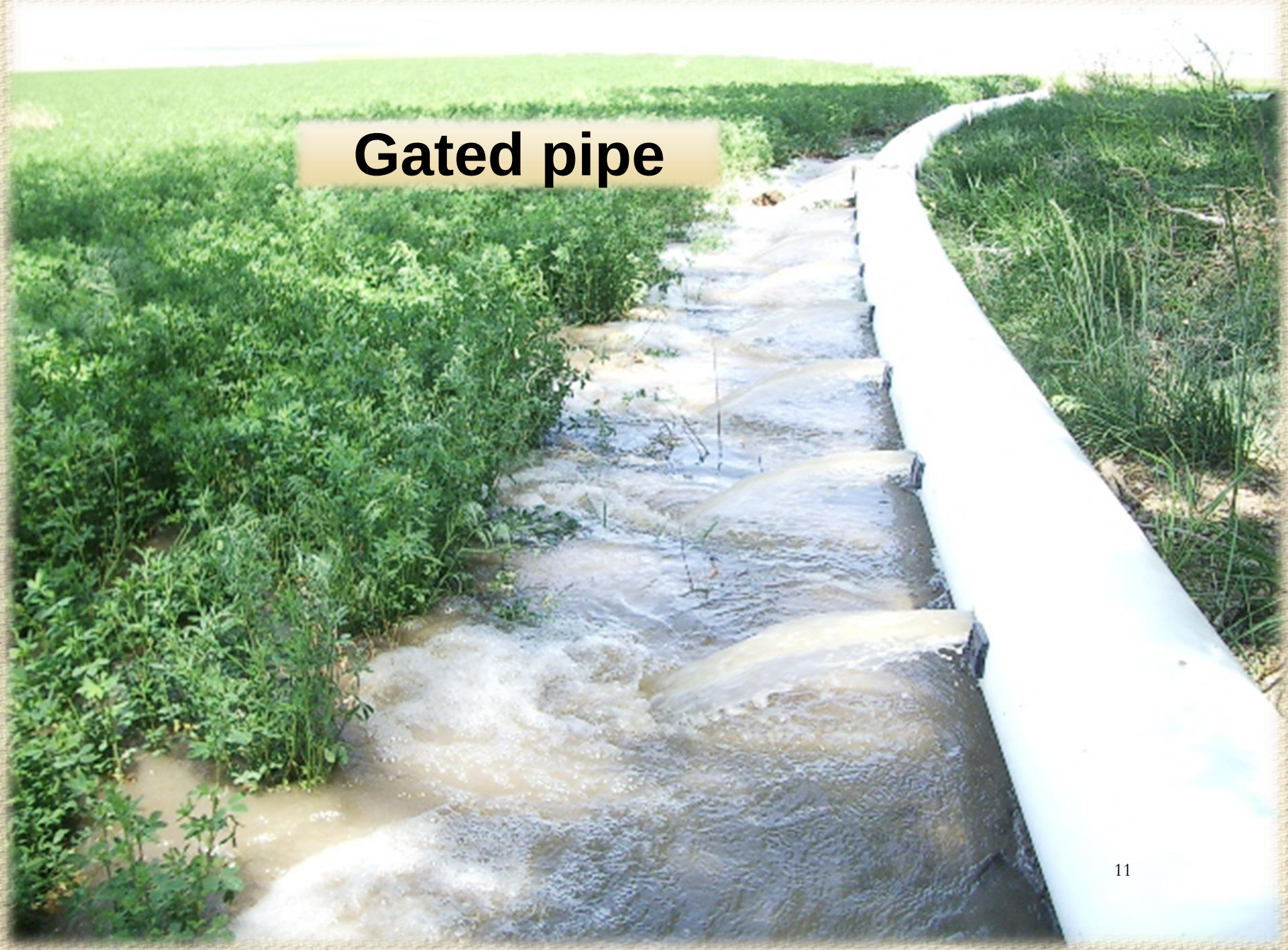
Basin System


Basin Dike

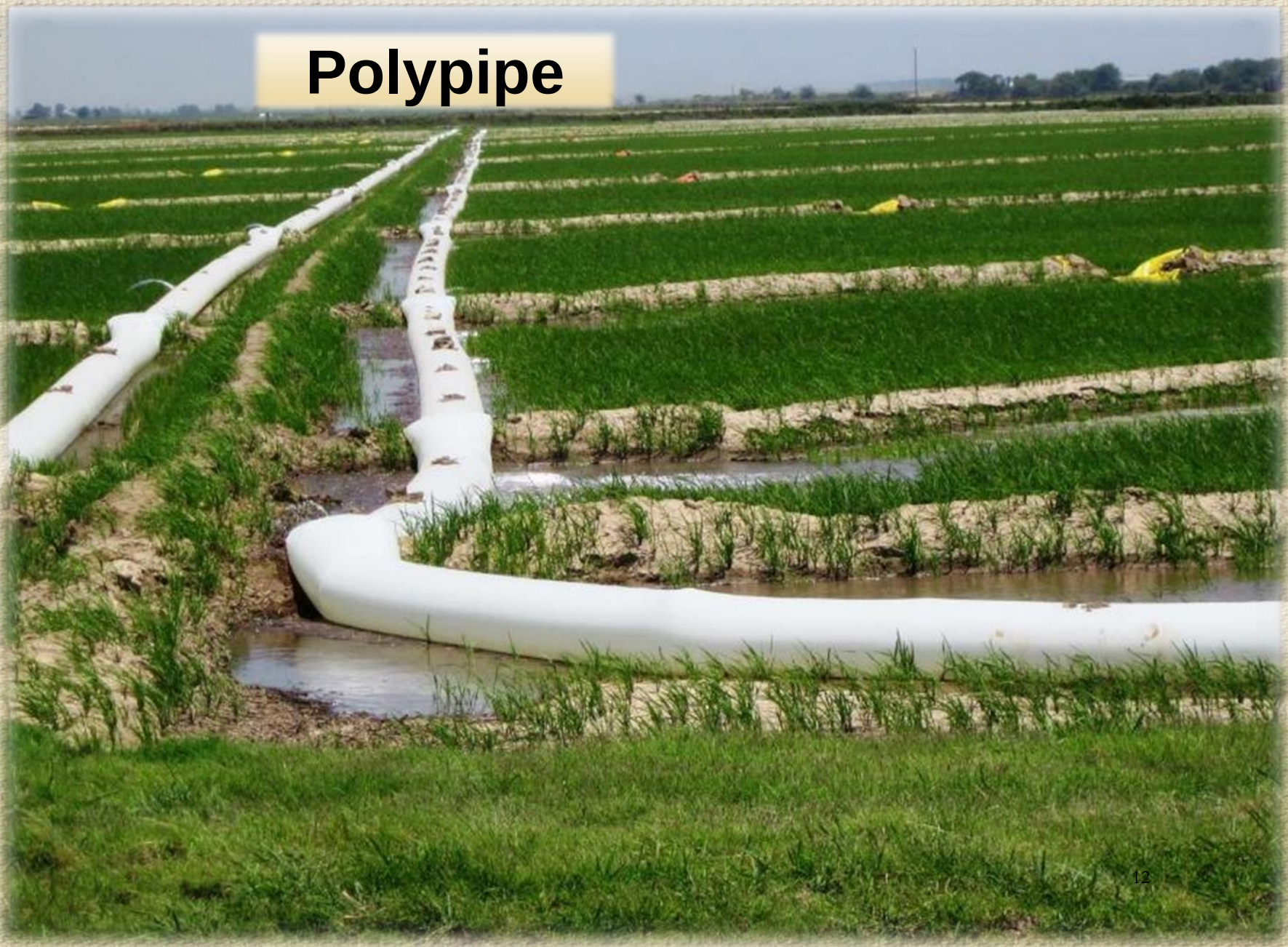

Drain back system


Cut outs control

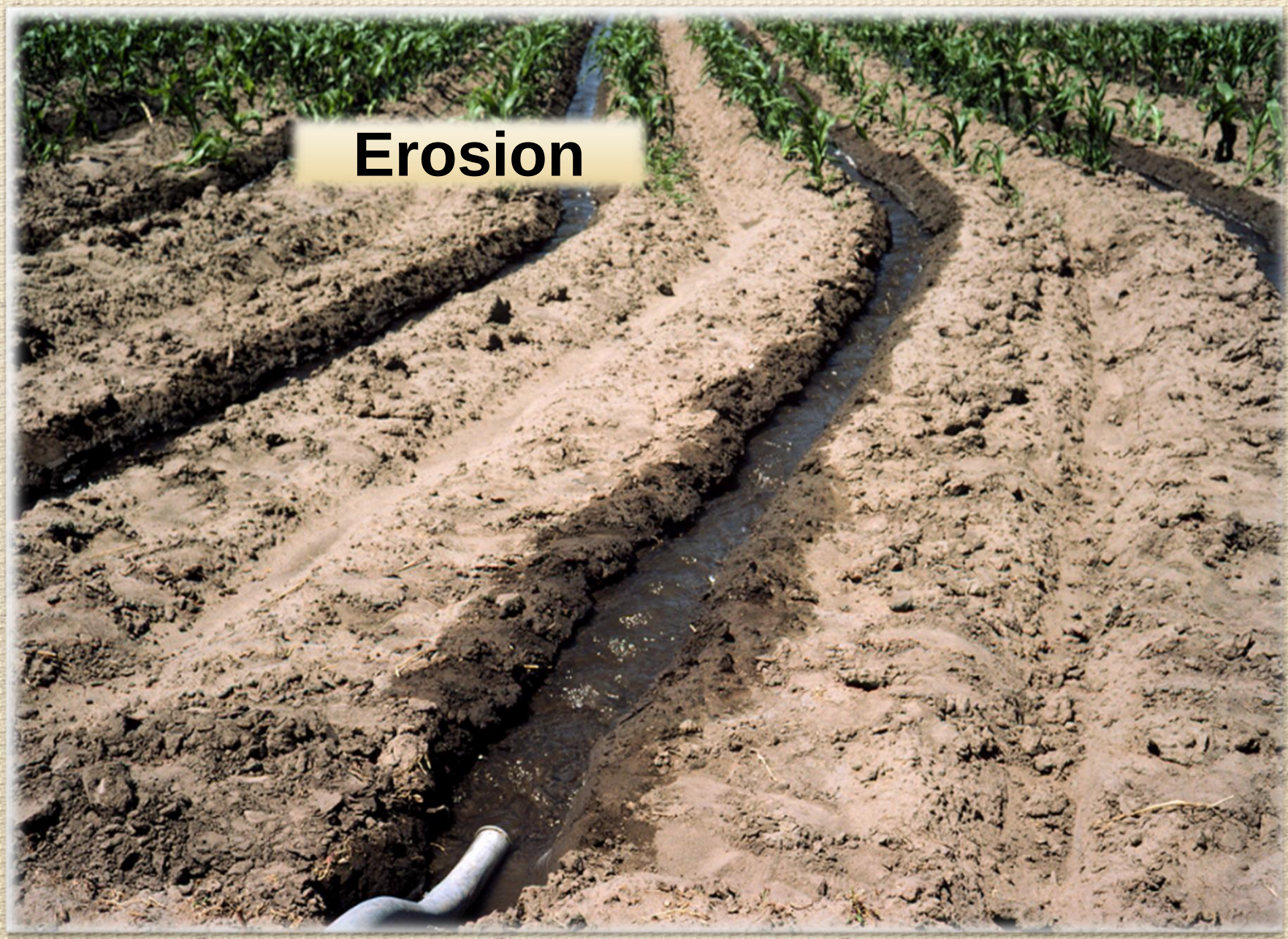

Siphon tubes


Gated pipe

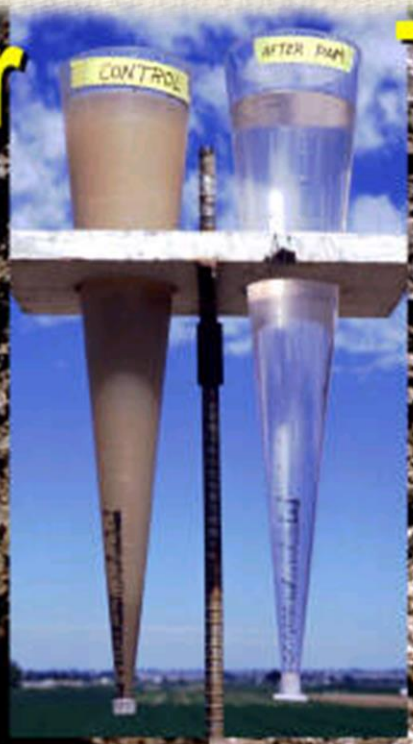
Polypipe



Risers


Erosion

This is your irrigated furrow.



This is your furrow on PAM!

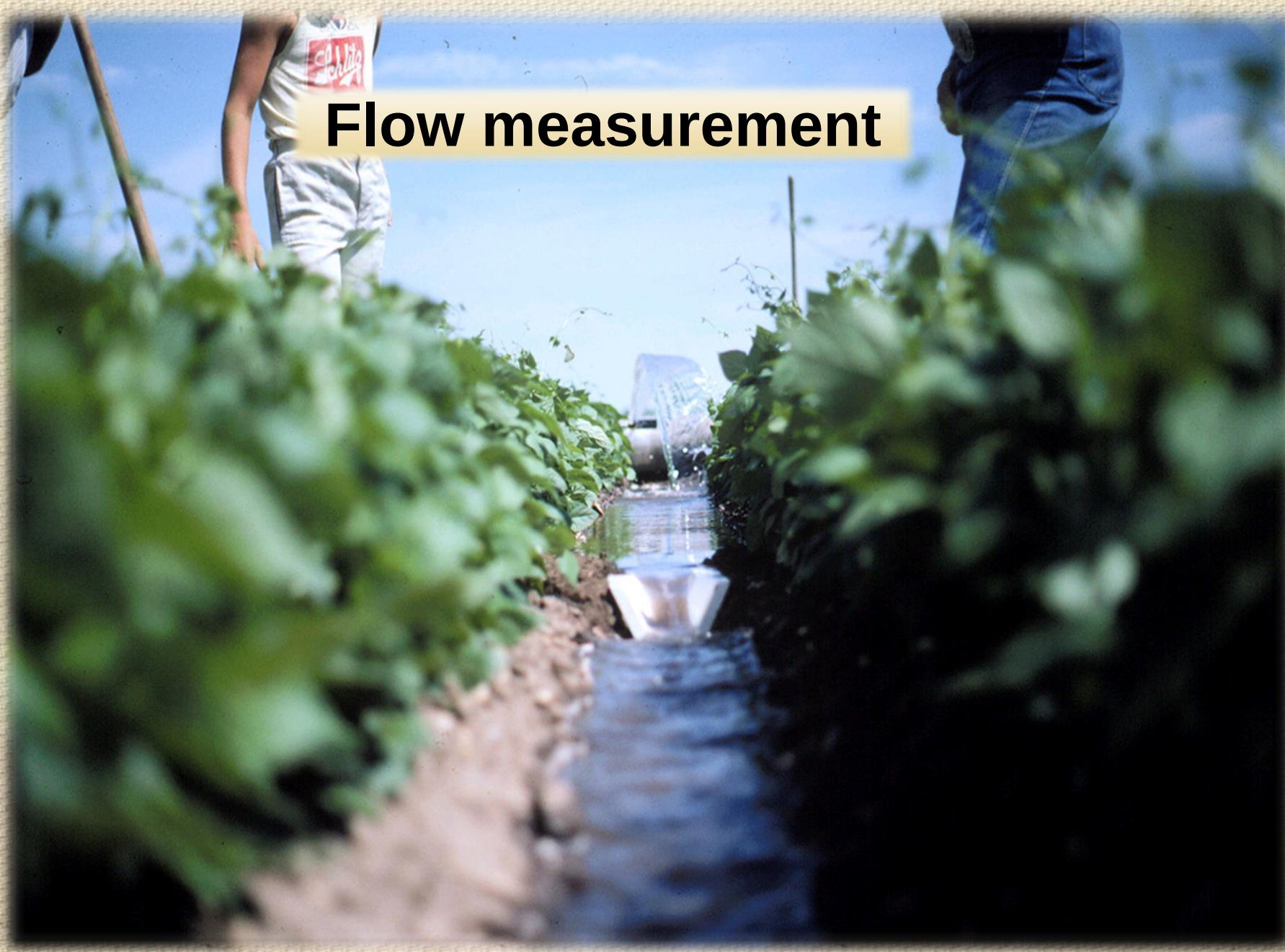
USDA

Northwest Irrigation and Soils Research Laboratory, Kimberly, Idaho

ars

Laser leveling

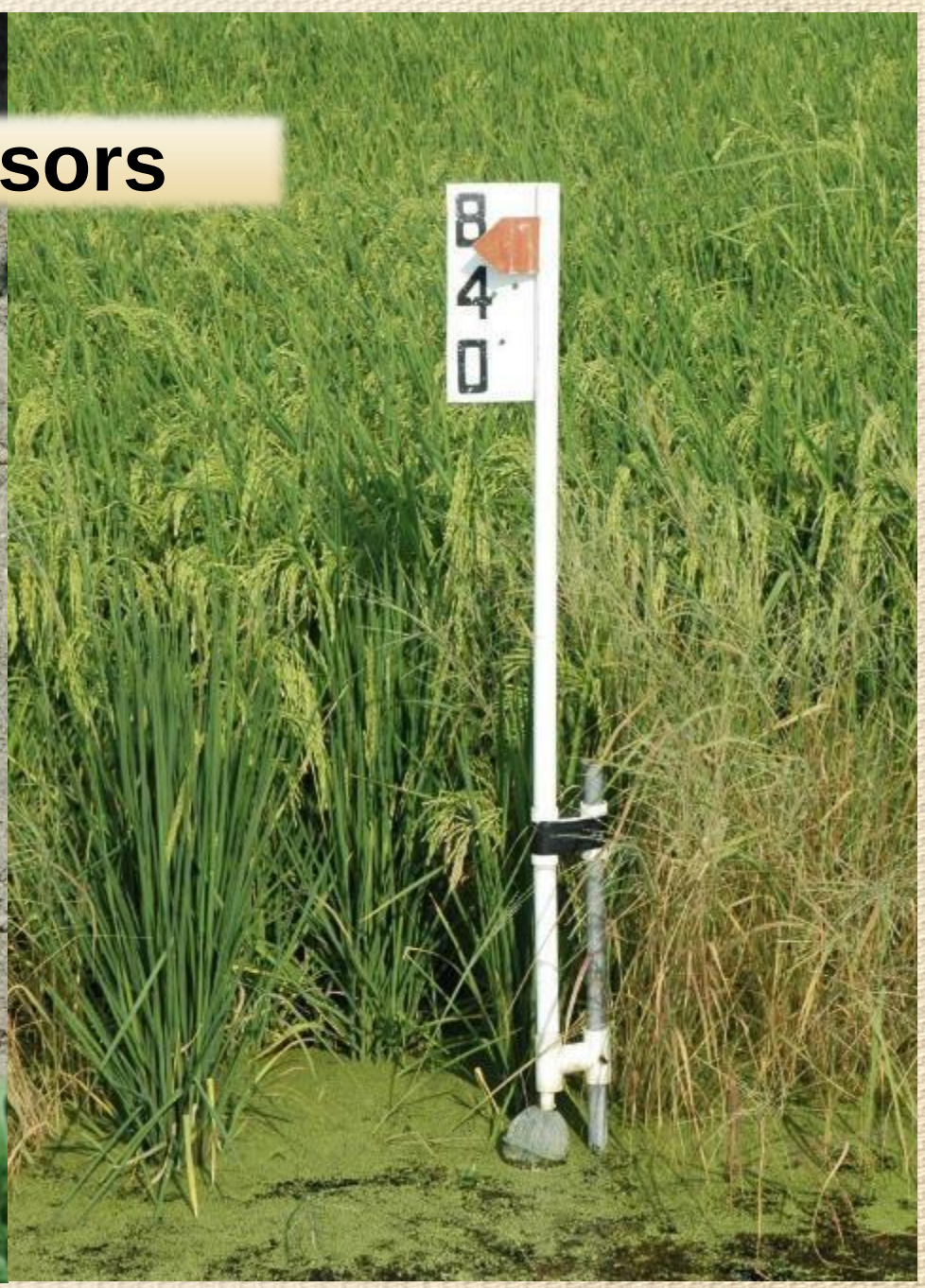
Leveled Fields


Flow measurement

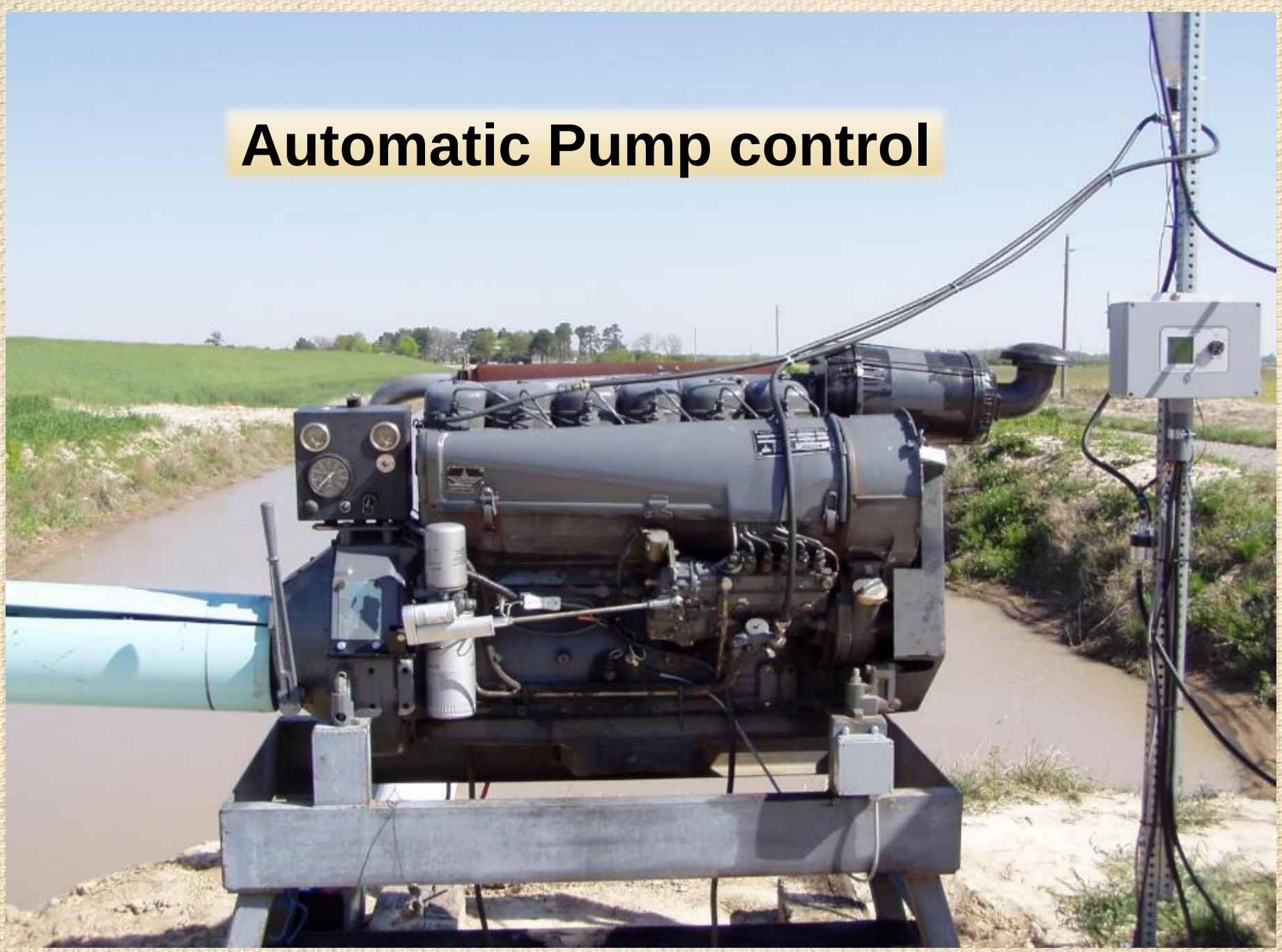
Surge Irrigation/ Automatic valves

Timers and automatic gates

Sensors

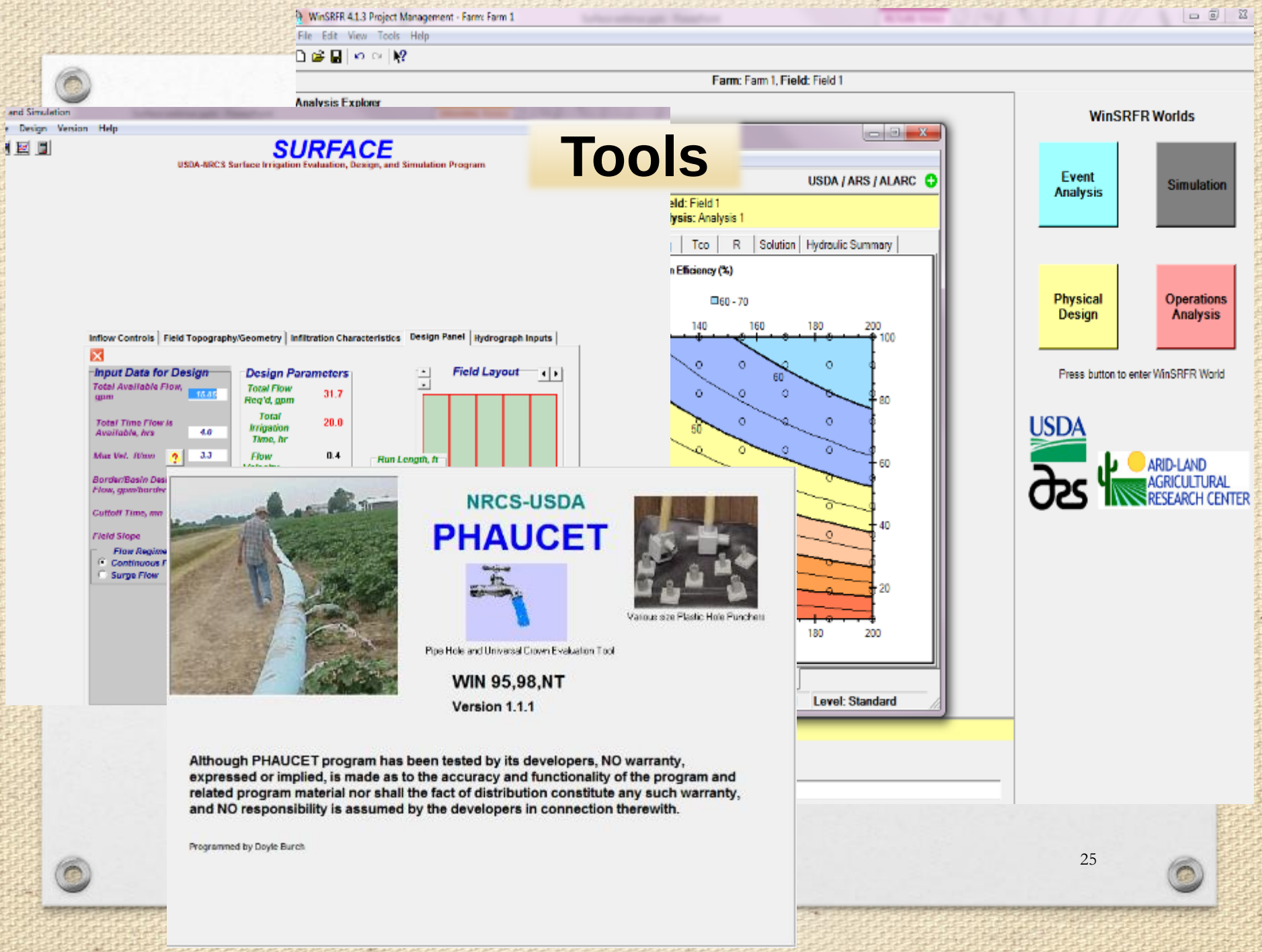


Automatic controls with telemetry


Automatic Pump control

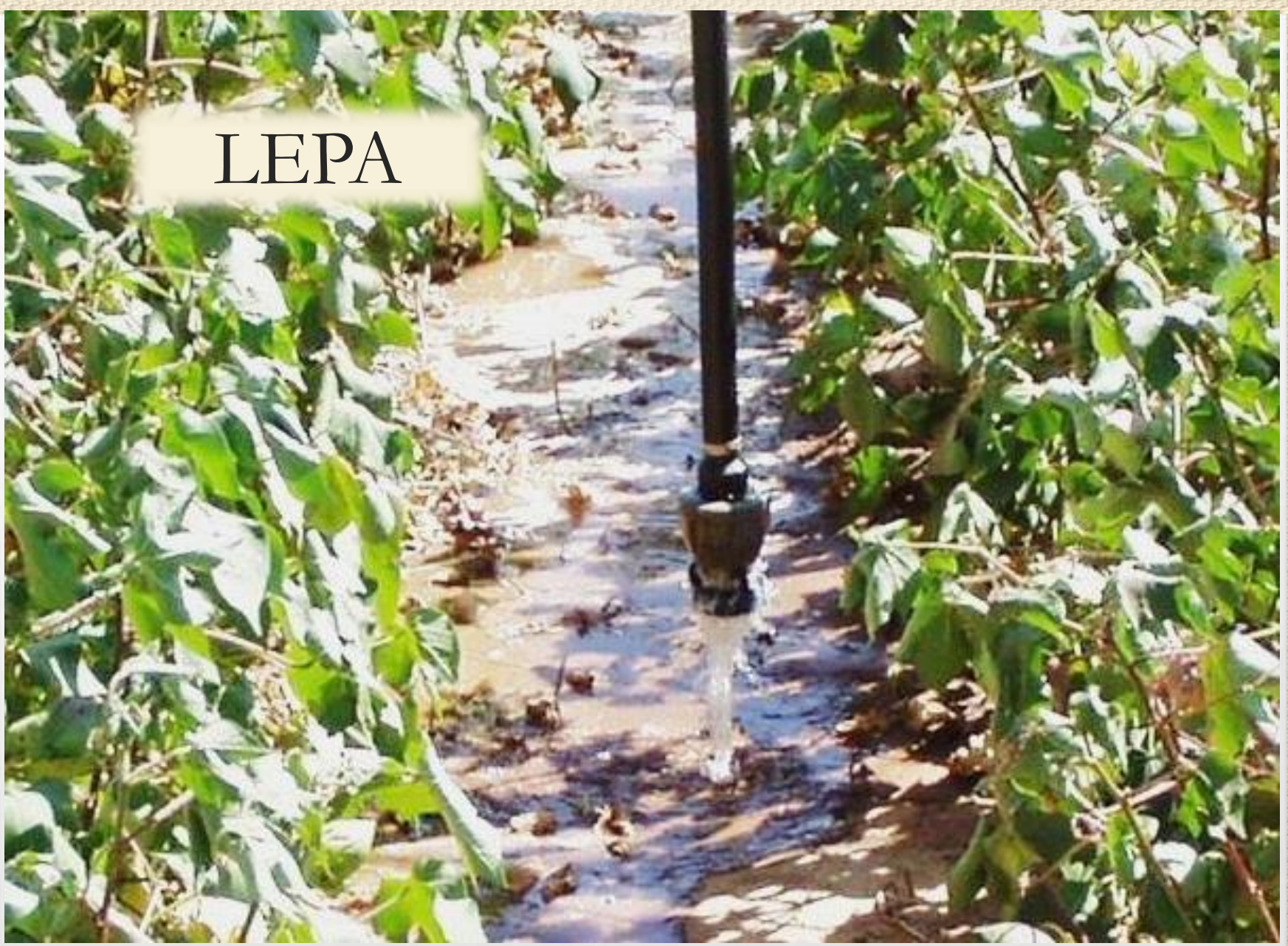
Tail water recovery

Tools

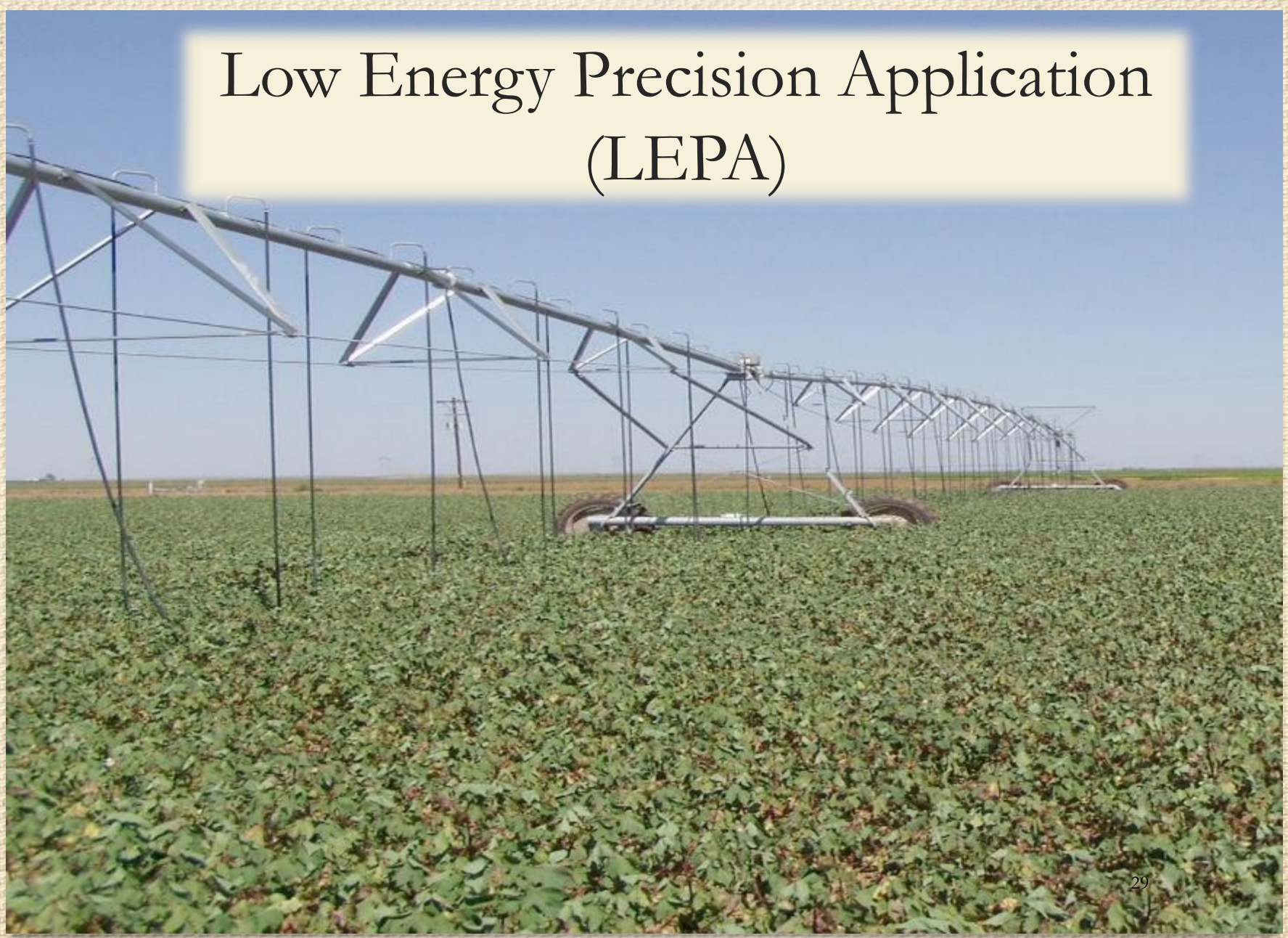

WinSRFR 4.1.3 Project Management - Farm: Farm 1
File Edit View Tools Help
Farm: Farm 1, Field: Field 1
Analysis Explorer
SURFACE
USDA-NRCS Surface Irrigation Evaluation, Design, and Simulation Program
USDA / ARS / ALARC
Field: Field 1
Analysis: Analysis 1
Tco R Solution Hydraulic Summary
Efficiency (%)
60 - 70
Inflow Controls Field Topography/Geometry Infiltration Characteristics Design Panel Hydrograph Inputs
Input Data for Design
Total Available Flow, gpm
Total Time Flow is Available, hrs
Max Vel. ft/sec
Design Parameters
Total Flow Req'd, gpm
31.7
Total Irrigation Time, hr
20.0
Flow
0.4
Field Layout
Run Length, ft
Cutoff Time, mn
Field Slope
Flow Regime
Continuous F
Surge Flow
NRCS-USDA
PHAUCET
Various size Plastic Hole Punchers
Pipe Hole and Universal Crown Evaluation Tool
WIN 95,98,NT
Version 1.1.1
Although PHAUCET program has been tested by its developers, NO warranty, expressed or implied, is made as to the accuracy and functionality of the program and related program material nor shall the fact of distribution constitute any such warranty, and NO responsibility is assumed by the developers in connection therewith.
Programmed by Doyle Burch
Level: Standard
WinSRFR Worlds
Event Analysis
Simulation
Physical Design
Operations Analysis
Press button to enter WinSRFR World
USDA
ARID-LAND AGRICULTURAL RESEARCH CENTER

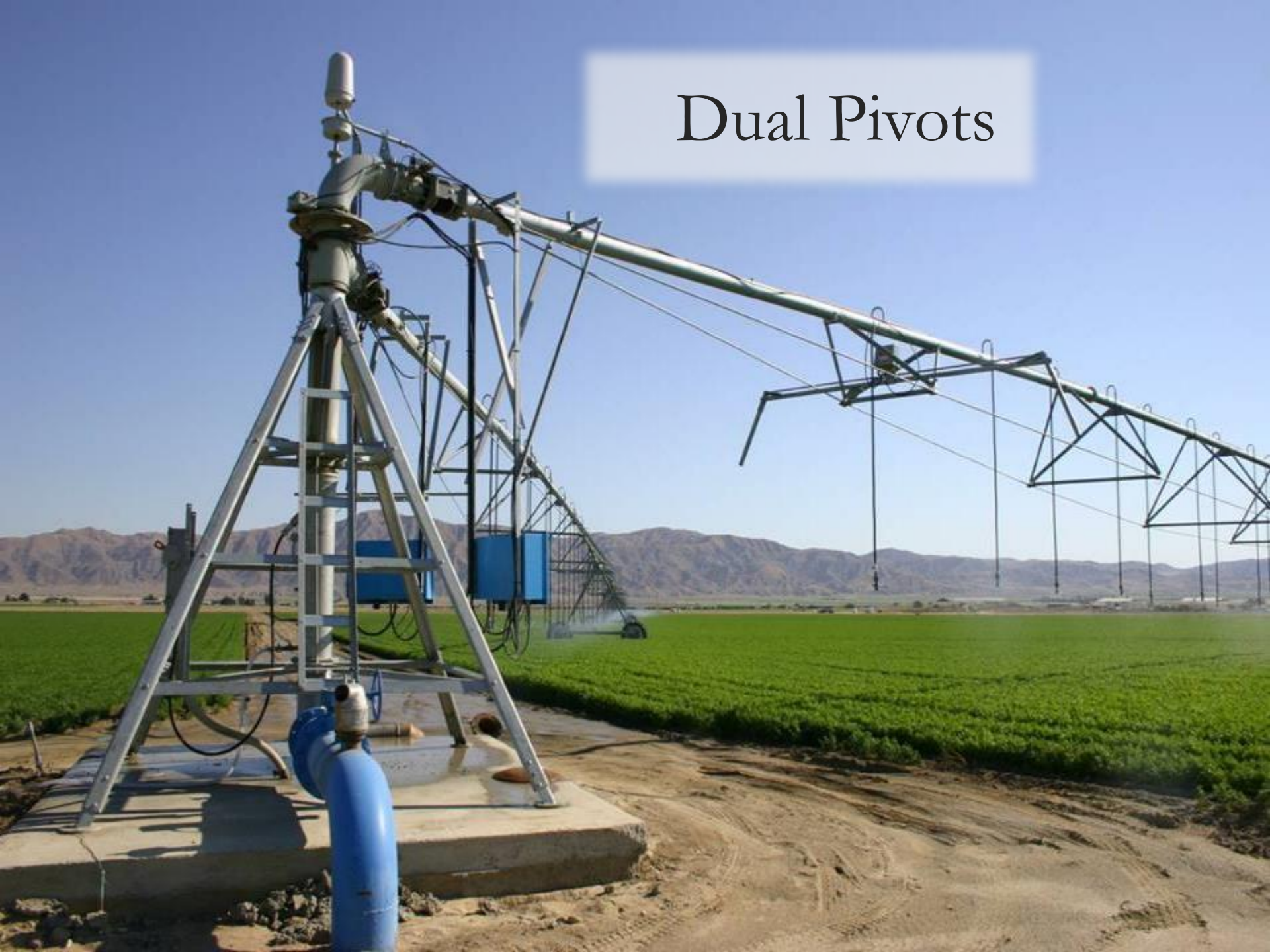
Sprinkler Irrigation Systems


Pivots


LEPA

Low Energy Precision Application (LEPA)



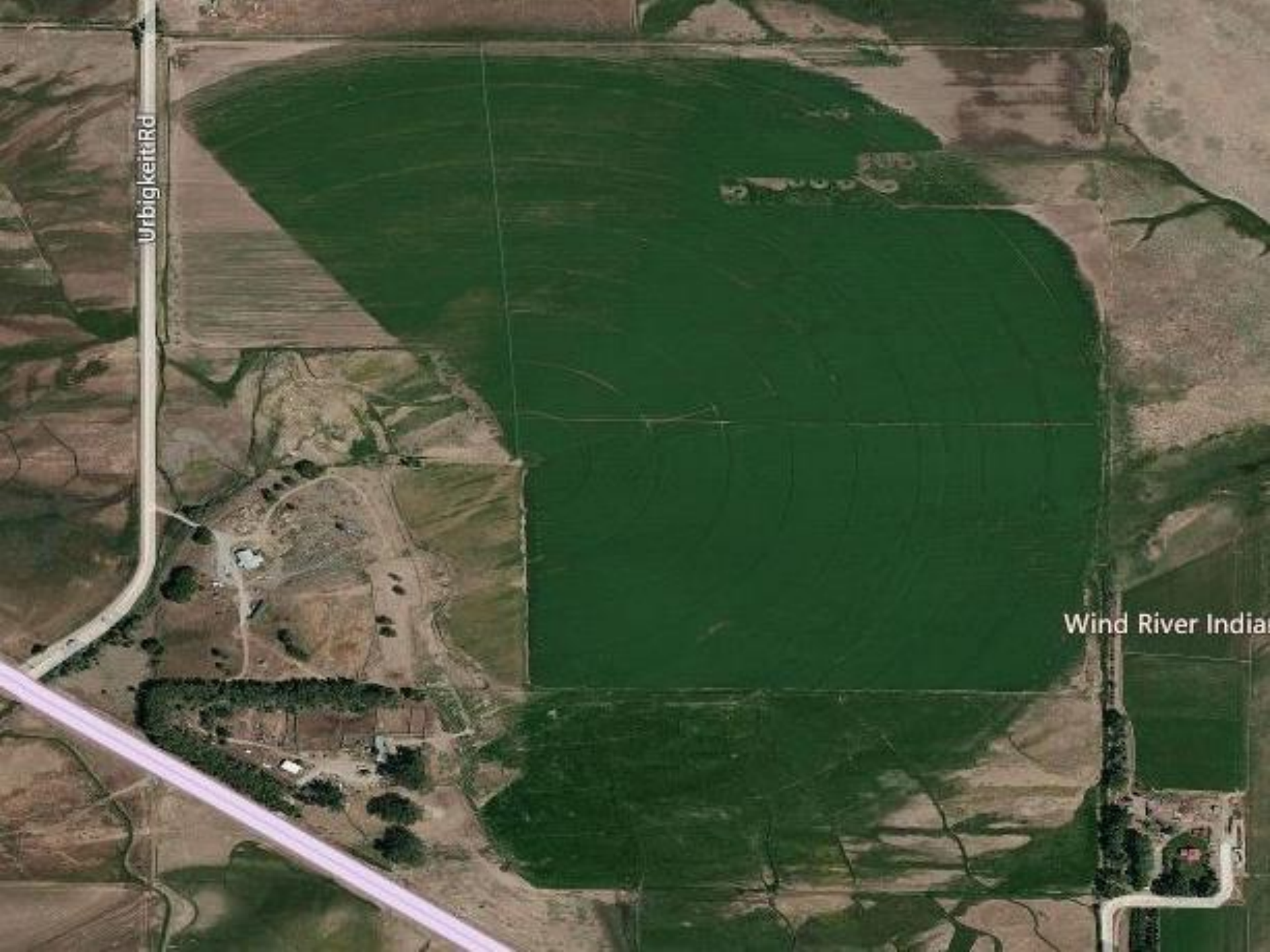

Dual Pivots

Towable pivot


Corner System


Squares
Buildings in Corner
Buildings in Center
Both Ends

Articulated pivots

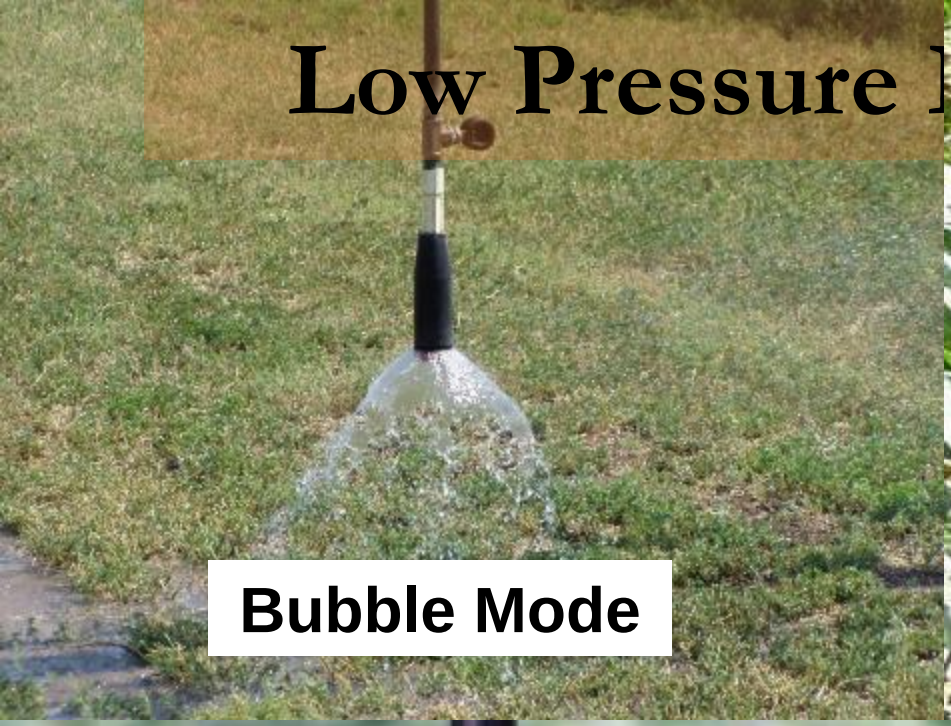

Urbigkeit Rd
Wind River India

Buried Wire

GPS

Sprays

Low Pressure



Wobbler


NEW!
UP3
Model


NEW!
UP3
Model


NEW!
UP3
Model


NEW!
UP3
Model


NEW!
UP3
Model

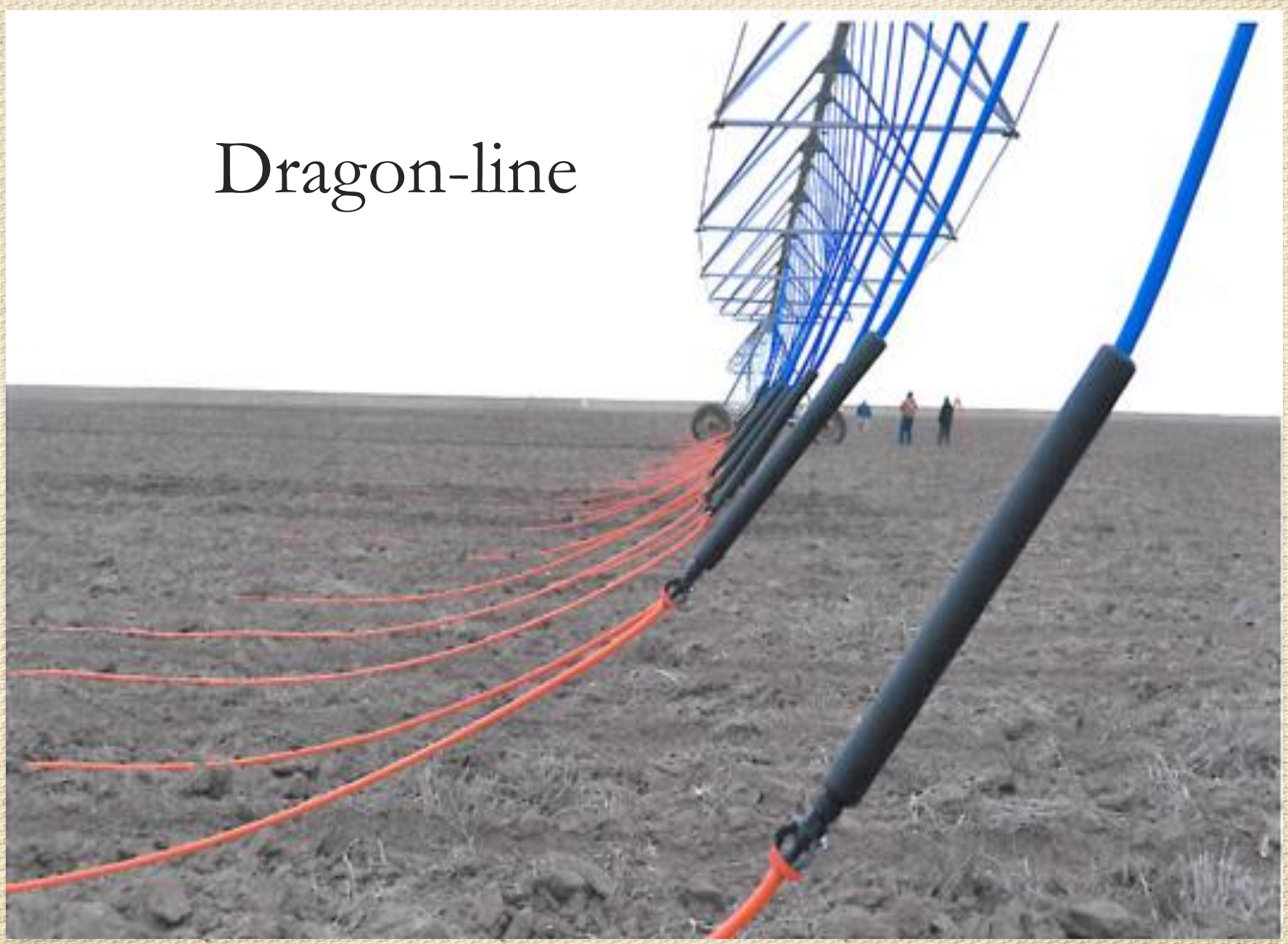

LATE
CHNOLOGY
R3000 Rotator
A3000 Accelerator
S3000 Spinner
N3000 Nutator
T3000 Trash buster
O3000 Orbitor
D3000 Spray

Pad style

- Smooth Spray Pads
- Medium Groove Spray Pads
- Deep Grooved Spray Pads
- Multi-grove

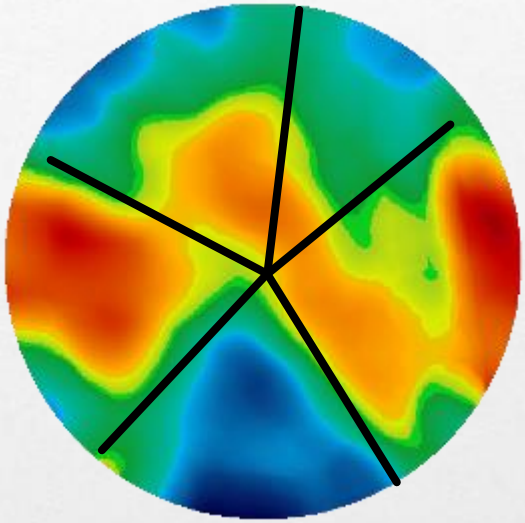
End Gun and Impact Sprinklers

Dragon-line

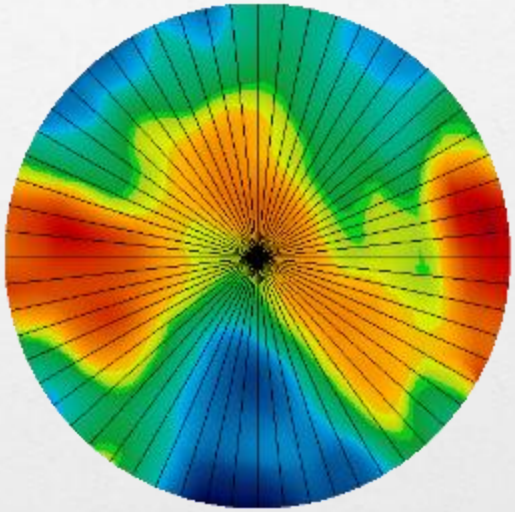


Choices for Precision Irrigation

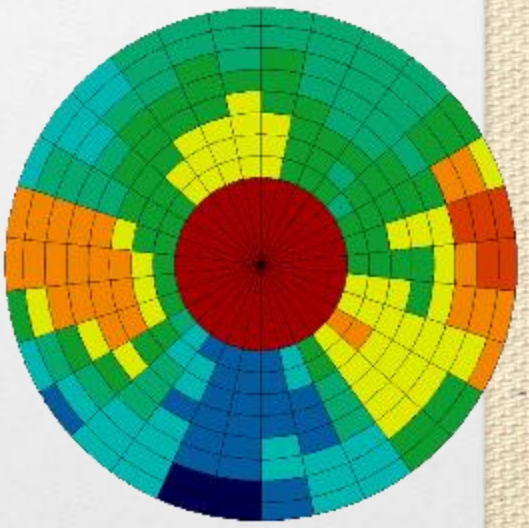
Sector Control



VRI Speed Control



VRI Zone Control



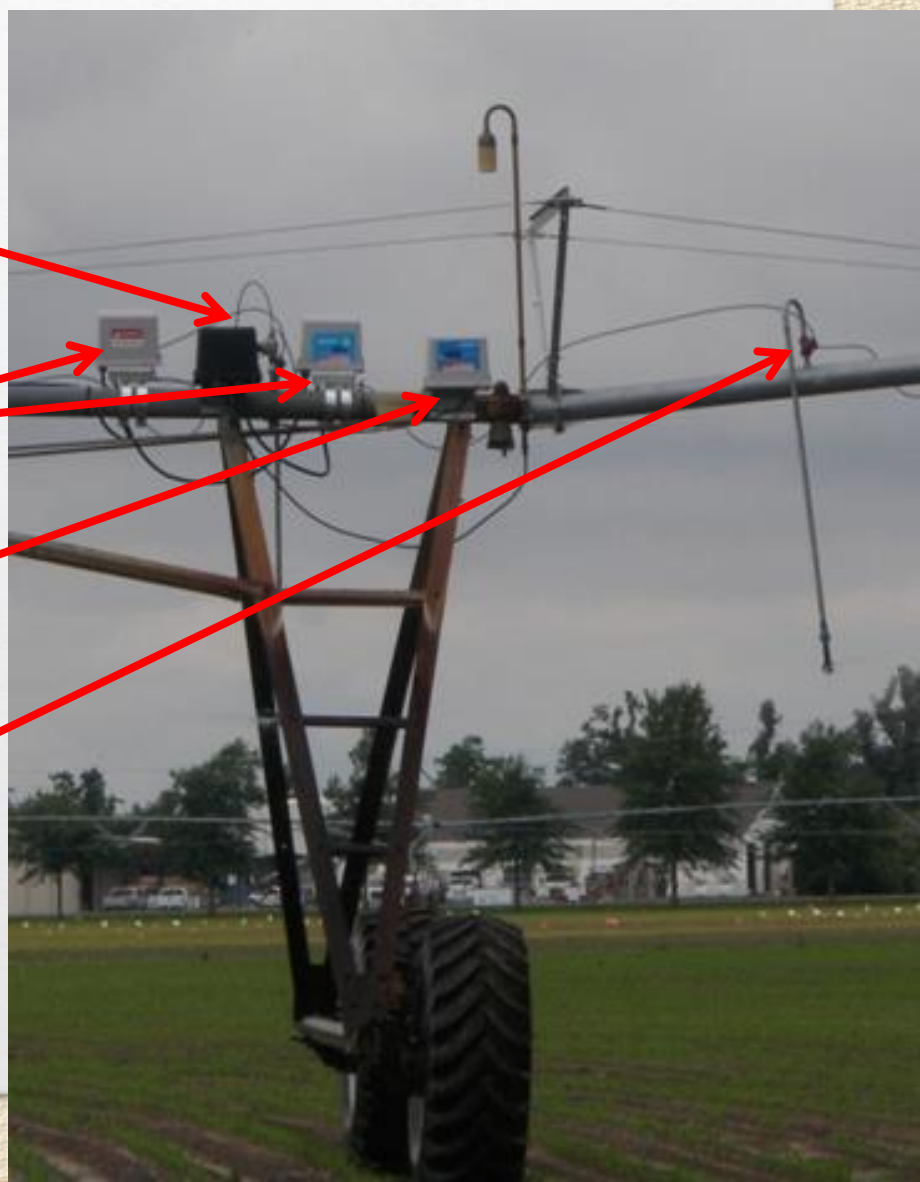
VRI Zone Control Hardware

Last tower box

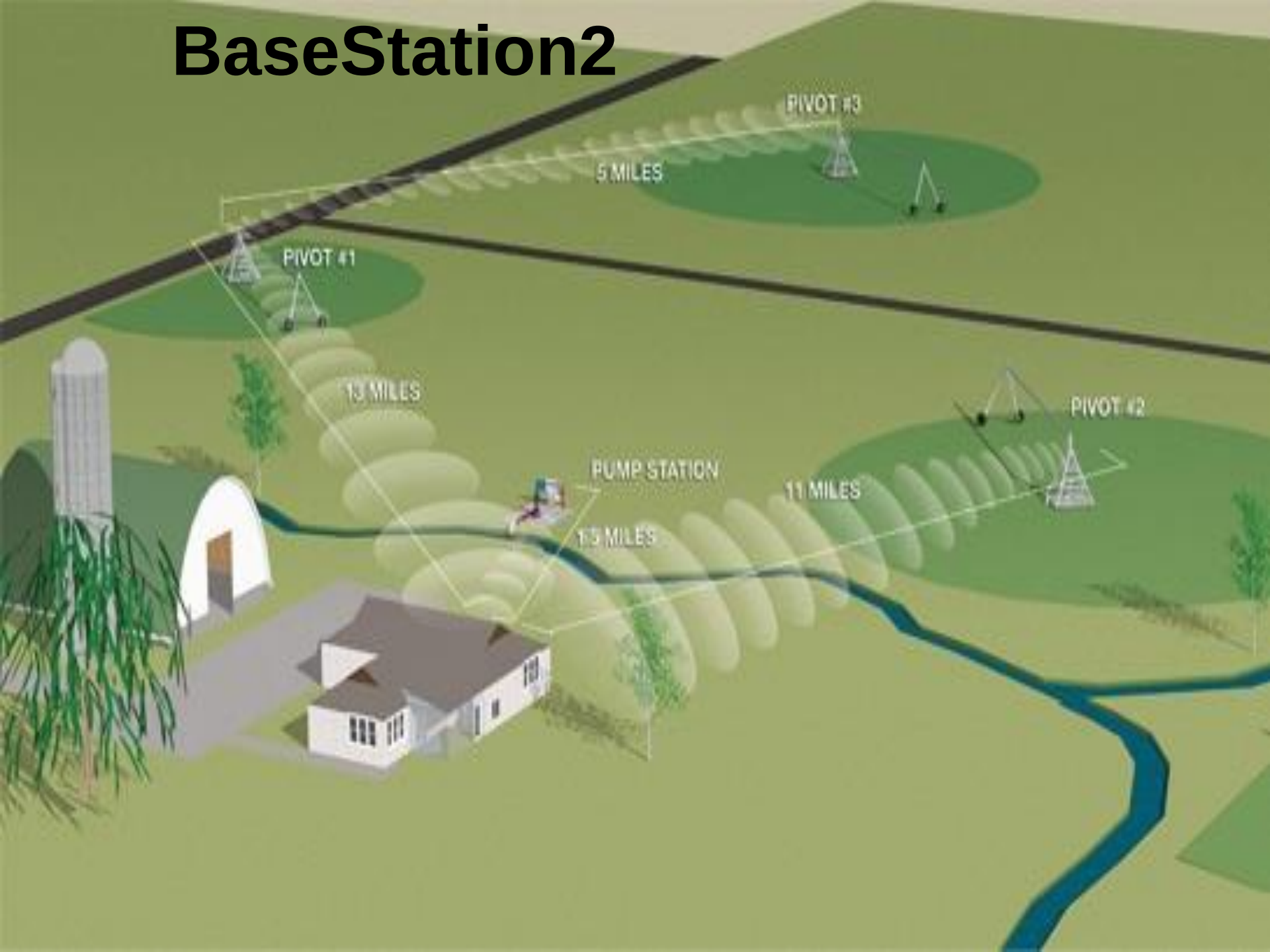
VRI tower box

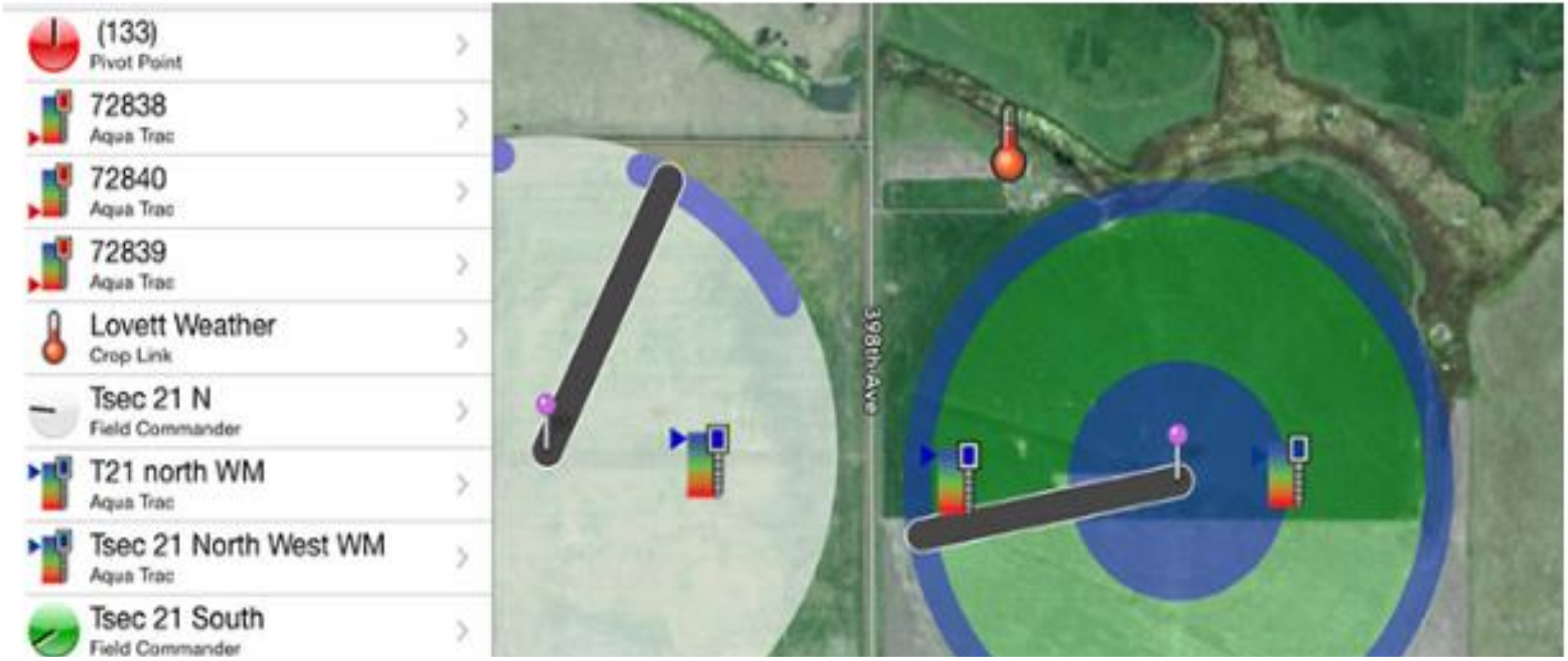
GPS tower box

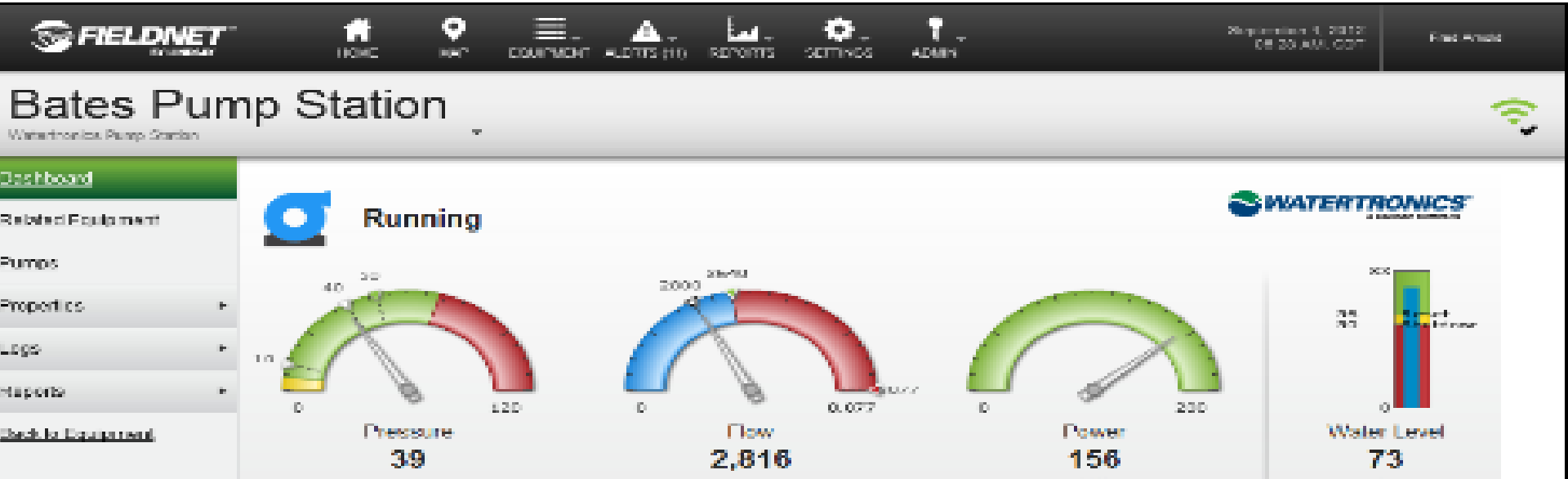
Sprinkler control valve



BaseStation2



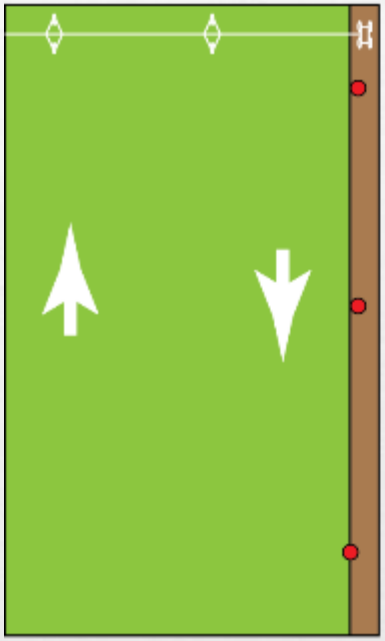

(133)
Pivot Point
72838
Aqua Trac
72840
Aqua Trac
72839
Aqua Trac
Lovett Weather
Crop Link
Tsec 21 N
Field Commander
T21 north WM
Aqua Trac
Tsec 21 North West WM
Aqua Trac
Tsec 21 South
Field Commander
398th Ave

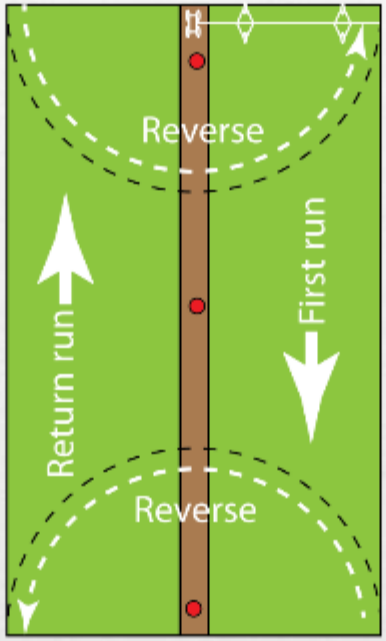

FIELDNET
HOME
MAP
EQUIPMENT
ALERTS (10)
REPORTS
SETTINGS
ADMIN
Bates Pump Station
Dashboard
Related Equipment
Pumps
Properties
Logs
Reports
Back to Equipment
Running
WATERTRONICS
Pressure
39
Flow
2,816
Power
156
Water Level
73

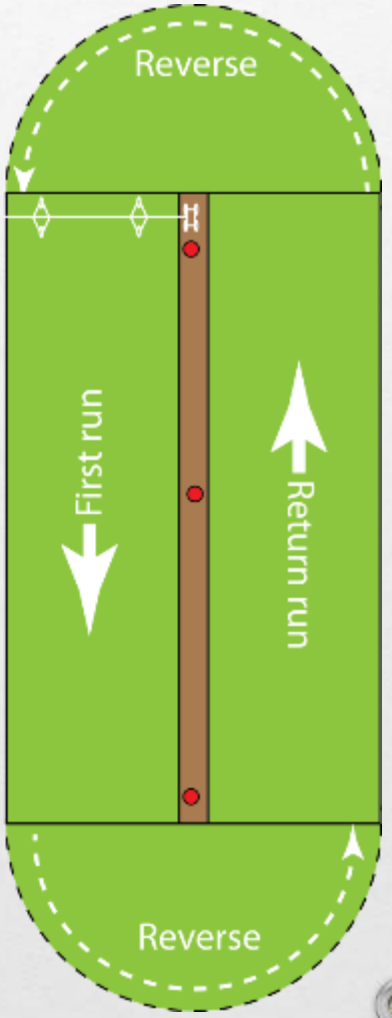
Linears


VALLEY

Possible Layouts

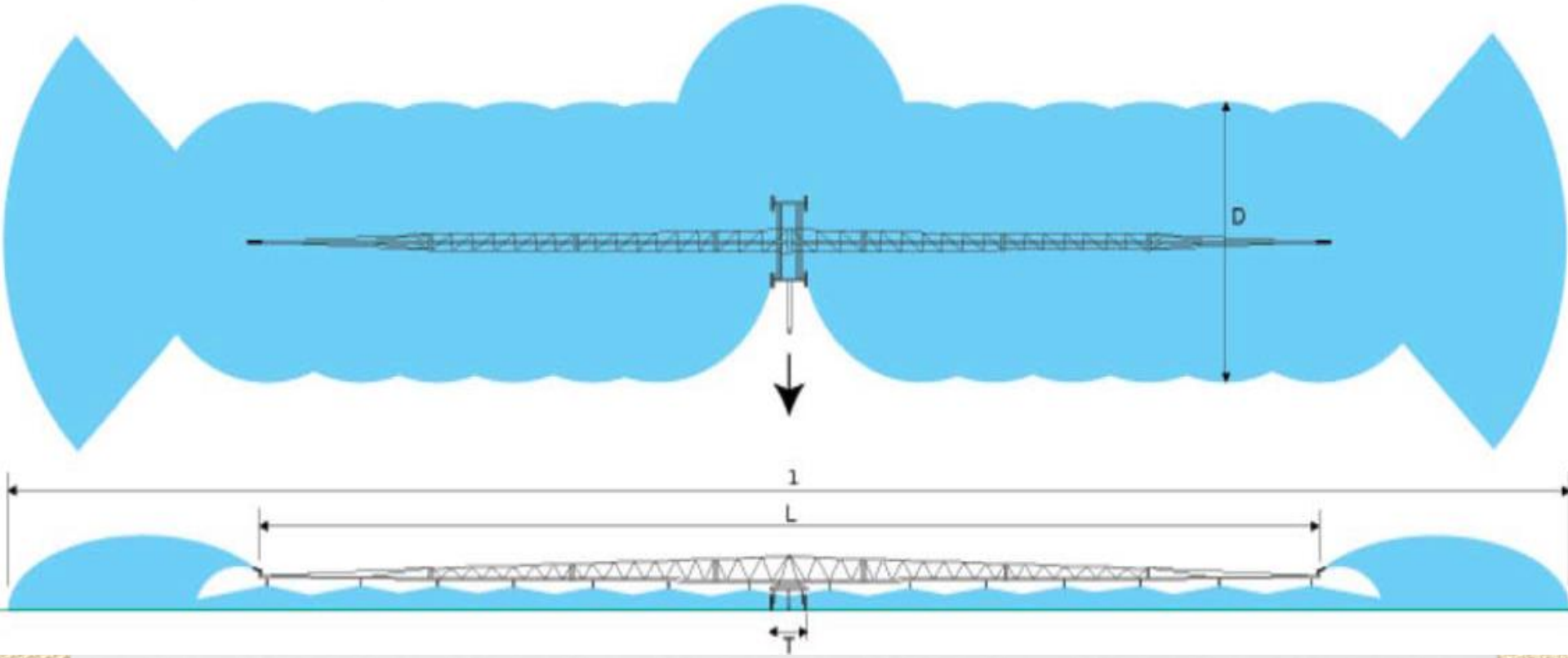






Booms

Plan



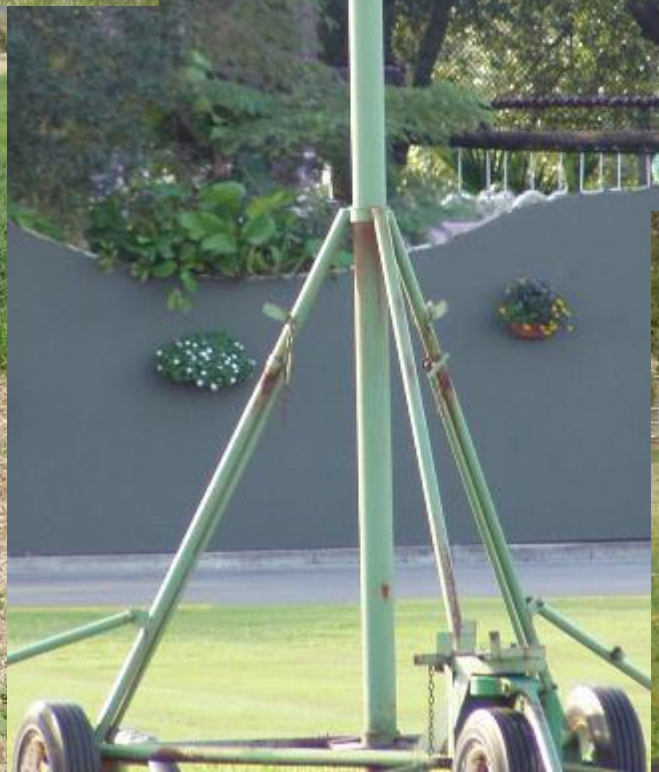
Profile


Wheel lines

Big gun







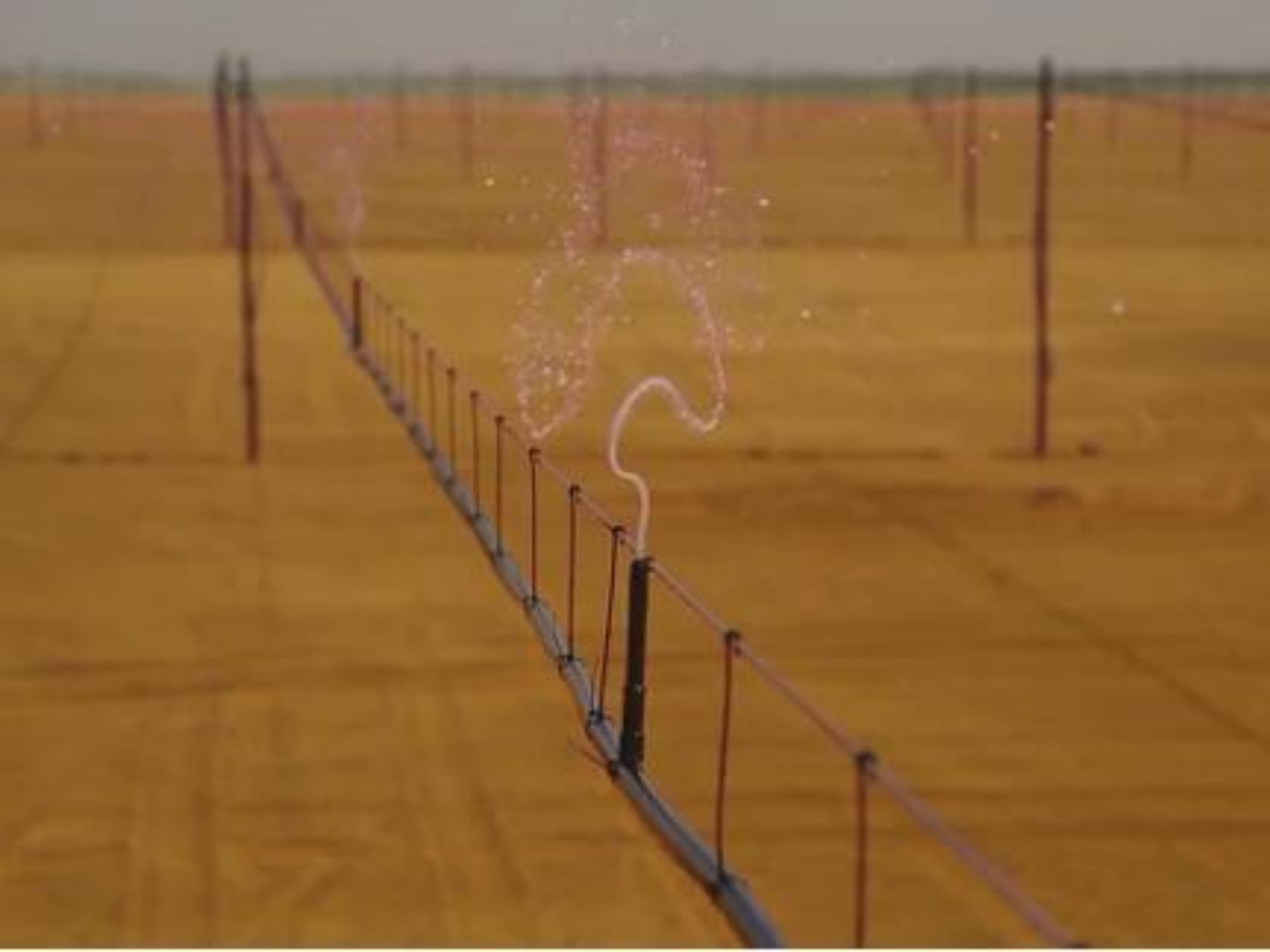


Hand line

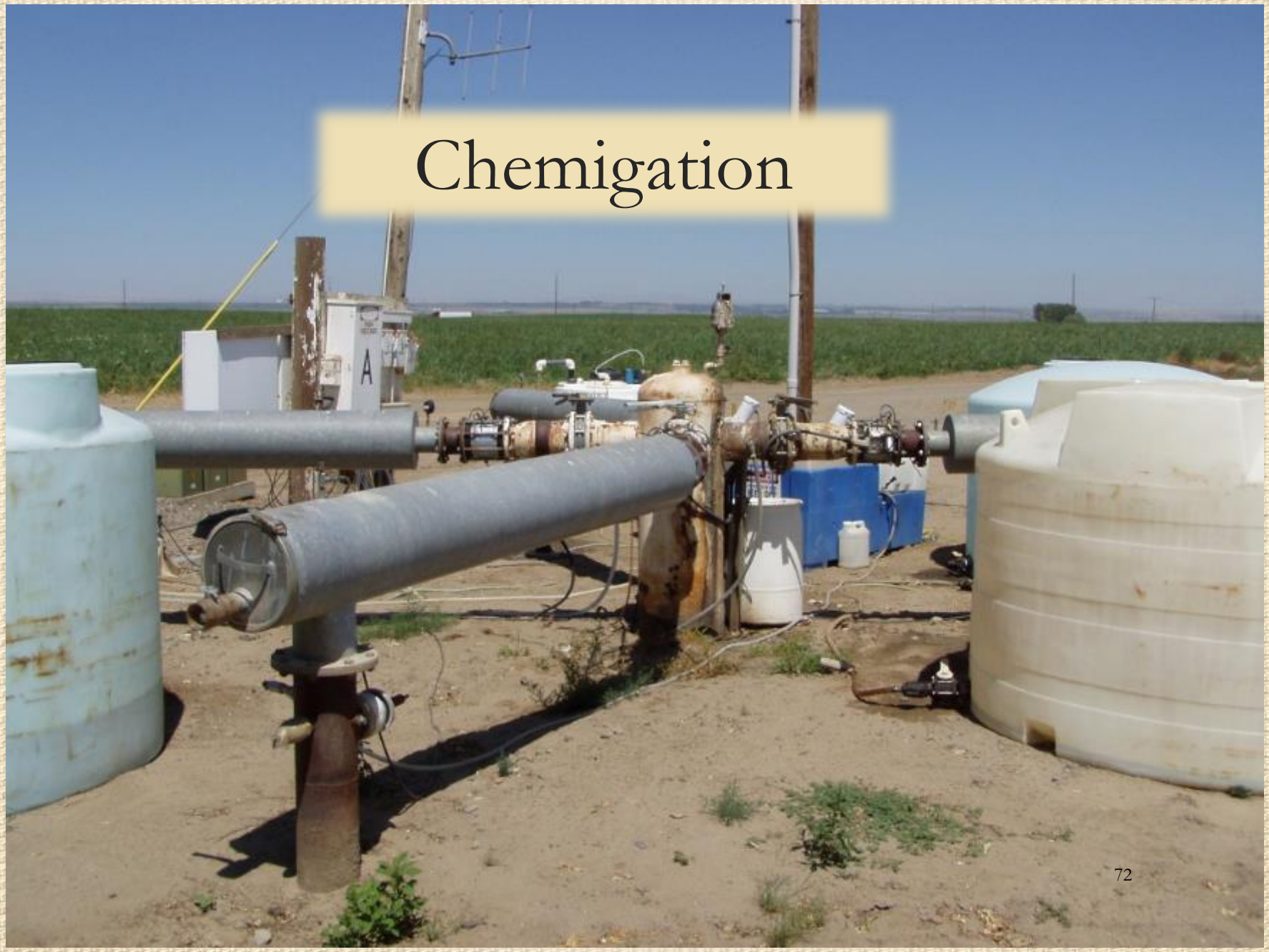

PVC or Aluminum


K-line


Floppy Sprinkler



Chemigation



Center Pivot Design and Evaluation

Default

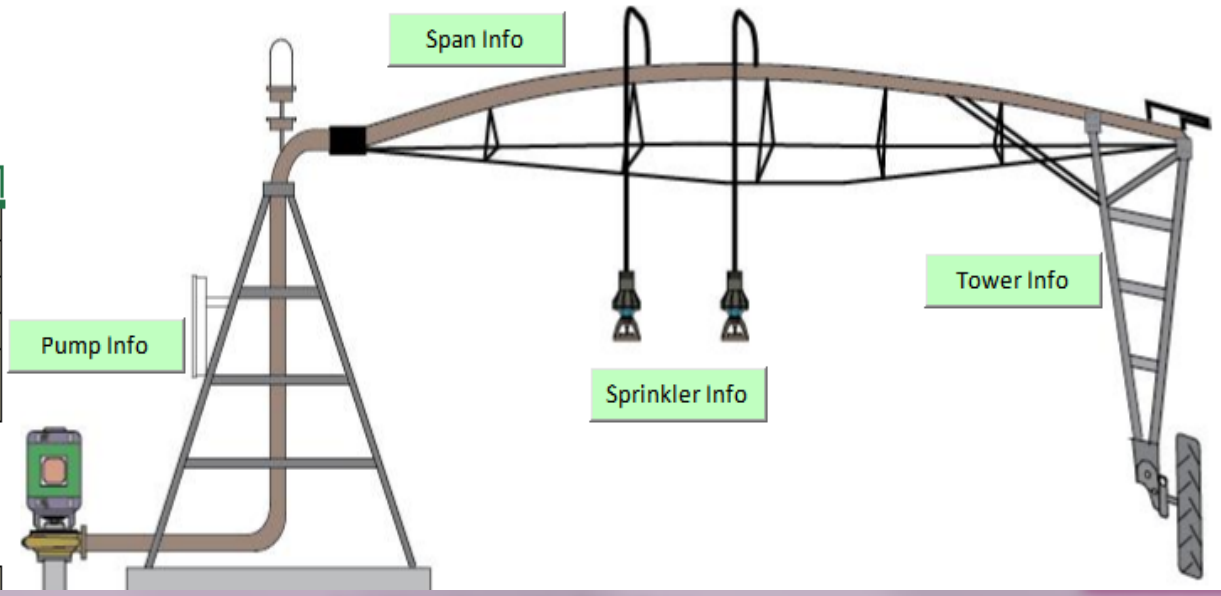
Linear/Lateral | Center Pivot

Simulation Parameters

Hours/Revolution	
Sprinkler Number	all
Start Distance (ft)	
Stop Distance (ft)	
Distance Increment (ft)	
Minimum Depth (in) **(Optional)**	

System Parameters

Type of Pressure



Potential Runoff Analysis

File View Options Help

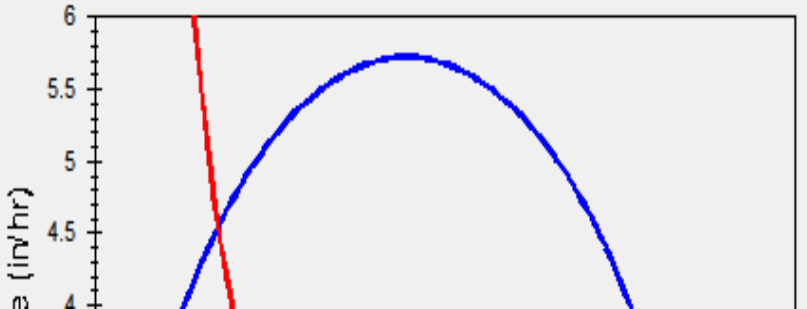
CPNozzle

Input Data | Results

Percent Potential Runoff

0.5 NRCS Intake Family

System Length (feet)	Wetted Diameter (feet)	Surface Storage (in)	1300 (gpm)	1400 (gpm)	1500 (gpm)
150	40	0.51	0.0	0.0	0.0
300	40	0.51	0.0	0.0	0.0
450	40	0.51	0.0	0.0	0.0

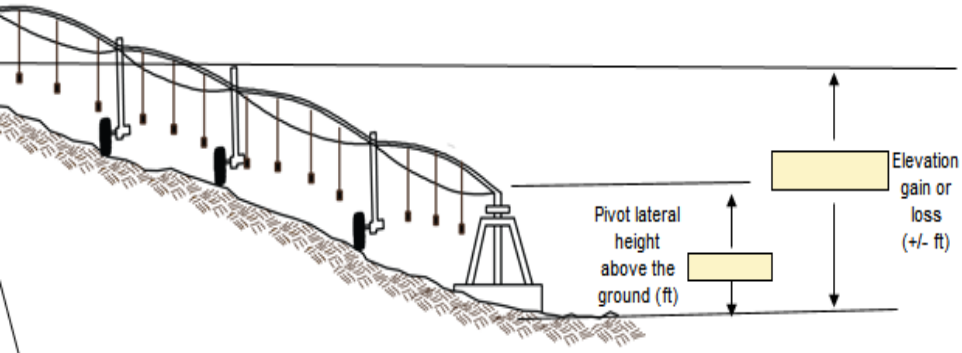


Date
County
Prepared by
Engr Job Class

Pivot type	Pivot Design length (ft)	End Gun Radius (ft)	System Flow rate (gpm)

on

Lateral pipe information						Total length (ft)
gth (ft)	PipeID (in)	Length (ft)	PipeID (in)	Length (ft)	PipeID (in)	
0		0		0		0



ement at the pivot point

Nozzle operating pressure (psi)	Are Pressure regulators used ?	Pressure regulator losses (psi)	Local Losses (psi)	Pressure required top of pivot (psi)

Soils | Area | NIR | Flow-Application | Pivot Pressure | Mainline hydraulics | Profile | Pumps | Ap

. Department of Agriculture
ural Resources Conservation Service

Periodic move sprinkle Irrigation System Planni

e
rict
Date
County

ter Source/Inventory

Water source	Amount available gpm	Amount available ft^3/sec	Amount available ac-ft/acre	Water Quality EC_w (dS/m)	t S

ld Layout