U.S. DEPARTMENT OF AGRICULTURE Natural Resources Conservation Service	**SPRINKLER IRRIGATION PLANNING WORKSHEET (BASED ON SOILS)**	WVEng WS442C 11/08

Owner/Operator _____ Field Office _____
Job Description _____
Location _____
Assisted By _____ Date _____

Soil—Data for limiting soil

		Cumulative AWC						
Soil Series	Percent of Area (%)	1 ft (in)	2 ft (in)	3 ft (in)	4 ft (in)	5 ft (in)	Depth to restrictive layer [1]	Intake fam., grp. max. rate

[1] Actual observed depth in the field

Maximum time between irrigations for any method/system based on peak crop ET

				Maximum net replacement			
Crop	Manage-ment root zone (ft)	Total AWC* (in)	MAD** percent (in)	(in/d)	(days)	Peak daily crop ET (in/d)	Max. irr. frequency (days)

*-AWC-Available Water Content in Soil Profile to plant root depth
**-MAD- Moisture Allowable Deficit (normally 30-50%)

Irrigation Planning Worksheet (for Soils) (Contd.)

Name _____ Date _____ Prepared By _____

Minimum system flow requirement for irrigation System

	Depth of irrigation application					Minimum system flow requirement total flow	
System Description	Net (F_n) (in)	Effi-ciency (%)	Gross (F_n) (in)	Peak daily crop ET (in/d)	Max. irrig. requency (days)	(gpm)	(ft^3/s)

Minimum dependable flow available to system _____ GPM, ft^3/s, inches, etc.
Total irrigated area _____ acres. Total operating hours per day _____ .

Weighted monthly crop evapotranspiration

The following process is used where more than one crop is grown under the same irrigation system; i.e., several fields, farm group, district.

		Monthly crop evapotranspiration - ET_c							
Crop	Acres (ac)	Depth[1] (in)	Volume[2] (ac-in)	Depth[1] (in)	Volume[2] (ac-in)	Depth[1] (in)	Volume[2] (ac-in)	Depth[1] (in)	Volume[2] (ac-in)
Total									
Weighted average crop ET[3]									

Irrigation Planning Worksheet (for Soils) (Contd.)

Name _____ Date _____ Prepared By _____

Computed peak daily crop evapotranspiration[4]

Net irrigation Depth applied (fn) (in)	Highest weighted monthly average crop ET (in)	Peak period average daily crop ET (in)

[1] Calculated monthly crop ET, inches.
[2] Calculated volume of water needed monthly crop ET = ac x ET_c = _____ acre-inches.
[3] Calculated weighted monthly crop ET = Total Volume/Total Area = _____ inches.
[4] Determined from table 2-55, Part 623, Chapter 2, Irrigation Water Requirements, or from formula:

$ET_d = 0.034\ ET_m\ 1.09\ Fn\ -0.09$, Where: ET_d = average daily peak crop ET
ET_m= average crop ET for peak month
F_n = net depth of water application per irrigation