CE 3372 – Water Systems Design Exercise 1

Purpose

- Access to the class website and upload completed exercises as .PDF files.
- Use web resources and supplied readings to self-teach about water systems.

Exercises

1. Water Use Descriptions

Consult the readings (Chin, 2006; Mays, 2011; Wurbs, 2002) for Lecture 1 and use your findings to complete the water use descriptions in Table 1, below.

Water Use Category	Description
Domestic Use	Water for household needs: drinking, food preparation, per- sonal hygiene, washing clothes and dishes, flushing toilets, and watering lawns and gardens (also called residential use)
Commercial Use	
Irrigation Use	
Industrial Use	
Livestock Use	
Hydroelectric Use	
Recreational Use	
Navigation (Inland) Use	

Table 1: Water Use Categories

2. Climate Conditions – 1

Consult Chin (2006) and use your findings to complete the climate range table, Table 2 below in U.S. Customary units as indicated.

Climate Description	Mean Annual Precip. (inches)	Mean Annual Evap. (inches)		
Superarid	< 4	< 118		
Hyperarid				
Arid				
Semiarid				
Subhumid				
Humid				
Hyperhumid				
Superhumid				

Table 9.	Climate	Decemintion	Drecipitation	and F	vapotranspiration
Table 2:	Onnate	Description.	r recipitation.	and E	vapouranspiration
		···· · · · /	· · · · · · · /		

3. Climate Conditions – 2

Use the internet and locate values of mean annual precipitation and mean annual evapotranspiration for Lubbock, Texas; Albuquerque, New Mexico, and Houston, Texas. Using Table 2 you constructed above, classify the climates of these three locales.

References

- Chin, D. (2006). Water Resources Engineering, 2 ed. Prentice Hall, Inc. pp. 1-8 http: //www.rtfmps.com/documents/university-courses/ce-3372/3-Readings/Chin1-8/
- Mays, L. W. (2011). *Water-Resources Engineering*. Wiley. pp. 1–11 http://www.rtfmps.com/documents/university-courses/ce-3372/3-Readings/Mays1-11/
- Wurbs, R.A., and James, W. P. (2002). Water Resources Engineering Prentice Hall. pp. 1-33 http://www.rtfmps.com/documents/university-courses/ce-3372/3-Readings/ Wurbs1-33/