

CE 3372 WATER SYSTEMS DESIGN

INTRODUCTION PART 2 (FALL 2020)

TYPES OF WATER SYSTEMS

- Types of systems
 - Control
 - Use
 - Environmental Restoration

WATER CONTROL SYSTEMS

- Spatial and temporal distribution of surface runoff from rainfall events (drainage engineering)
 - Flood control
 - Storm water harvesting
- Capacity is based on AREA served
 - hydrology dominated designs

WATER USE SYSTEMS

- Spatial and temporal distribution in support of human habitation
 - Water supply/treatment/distribution
 - Waste water collection/treatment/discharge
- Capacity is based on POPULATION served
 - hydraulic dominated designs

ENVIRONMENTAL RESTORATION SYSTEMS

- Systems to manage spatial and temporal distribution in support of non-human habitation
 - Create “desirable” conditions

“Desirable” <= Policy <= Value Judgment