

**ILO-2. Water Demand Forecasting****Learning Objectives:**

- b. Identify + recommend suitable non-structural approaches to manage water supply.*
- d(i). Forecast water demands*
- g. Present work and findings in a variety of formats required of practicing river basin managers, including written reports.*
- p. Work effectively individually.*

Using data presented in the Cache Water Master Plan, Addendum #1, and lecture,

- Compare Cache County municipal and industrial per capita water use to use in Albuquerque, NM,
- Forecast water demands in 2025 for each Cache County municipality if the municipalities reduce use to that of Albuquerque, NM,
- Describe limitations of the forecasting method(s) used and recommend improvements to the method.

Cite and reference the original source of all data used in your report.

Category (Max. Score)	No Evidence	Far Below Standard	Below Standard	Meets Standard	Exceeds Standard	Self- Score	Instructor Score		
Title (1)	Absent  0	Evidence of two or less  0	Evidence of three  0	Evidence of four  1	Title – can assess main point from title alone; Name, Instructor's Name, Course, Date, Neatly finished 1				
Introduction (3)	Absent, no evidence  0	There is no clear introduction, main topic, or description of the report's contribution. 1	Introduction states the main topic but either: 1. Does not give a full overview, Or: 2. Too detailed, leading to annoying repetition later. 2	The introduction states the main topic and previews the structure of the report.  2	Introduction states the main topic, describes the report contribution, and previews report structure. Overviews design and strategy. Gives enough detail to interest the reader. 3				
Organization and report structure (10)	No content provided.  0	Paragraphs fail to develop the main idea. No section headers or guide to help the reader understand how material is organized. 1 – 5	Organization of ideas not fully developed. Paragraphs lack supporting detail sentences. No transitions. Main report exceeds 1 page. Main report and appendices exceed 5 pages. 6 - 7	Paragraph development present but not perfected. Each paragraph has sufficient supporting detail sentences. Few transitions. 1-page main report. 8	Writer demonstrates logic and sequencing of ideas through well-developed section headers, paragraphs, and transitions. The first sentence of each paragraph is the summary sentence. Main report is 1 page or less. Appendices, if present, do not exceed 4 pages. 9 - 10				
Engineering Calculations and Design (70)	Design point(s) not addressed. 3 – 42%	The writer has no clue what they are talking about. 45 – 58%	Sketchy: left out required design points. Did not work on this as much as you should have, and it shows. Many important answers are incorrect. 61 – 79%	Discussion lacks adequate detail, but all the necessary points are covered and nearly all answers are correct. 82 – 88%	Provides what was explicitly asked for. The function of each piece is demonstrated to the reader in adequate, but not overwhelming, detail. Answers are correct and reasonable. 91 – 100%				
	a) Compare Cache County and Albuquerque, NM water use (10)								
	b) Forecast water use by Cache County municipalities if they use at the Albuquerque, NM level (35)								
	c) Describe limitations of forecast method and suggestion methods to improve (25)								

Category (Max. Score)	No Evidence	Far Below Standard	Below Standard	Meets Standard	Exceeds Standard	Self- Score	Instructor Score
<b>Word Usage and Format (10)</b>	Not applicable	Numerous and distracting errors in punctuation, capitalization, spelling, sentence structure, word usage, significant figures, tables, and figures. Data vomited onto page(s). Unacceptable / unprofessional at the graduate level. <span>1 – 5</span>	Misspelled words, poor English grammar and word choice. Main body of report is either longer or significantly less than one page. Figures are too small and/or under-labeled, although they are usually of acceptable quality and focus. Tables incoherent or not cohesive. Bad font sizes. Too much or too little data in appendices. Could be improved by being more meticulous. <span>6 – 7</span>	Almost no errors in punctuation, capitalization, spelling, sentence structure, word usage, significant figures, and presentation of figures, tables, and appendices. Main body of report is one page or less  <span>8</span>	Punctuation, capitalization, spelling, sentence structure, word usage, and significant figures all correct. Main body of report is one page or less. Clear, consistent fonts. Good word processing skills. Figures have adequate contrast. Informative figure and table titles and legends. Figures have appropriate axis tick spacing, labels, units, and legends. Table columns cohesive, labeled, and specify units. Document is stapled. Appendices, if provided, are separated by topic, and each have a title, discussion, and proper formatting and display of information <span>9 - 10</span>		
<b>Conclusion (4)</b>	Absent <span>0</span>	Incomplete and/or not focused. <span>1</span>	The conclusion does not adequately restate the main results. <span>2</span>	The conclusion restates the main results. <span>3</span>	The conclusion restates the main results, and is an effective summary. <span>4</span>		
<b>References (2)</b>	Absent <span>0</span>	With many errors, off-the- wall sources used. <span>0</span>	With some errors, appropriate sources were used. <span>1</span>	With few errors, good sources were used <span>2</span>	All cited works; text, visual, and data sources are done in the correct format with no errors. Uses innovative sources of information. <span>2</span>		
<b>TOTAL (100)</b>							