



# Styles & Illustrations

## McAlpine Locks & Dam Problem

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### Topics

- Insert text from a file
- Apply formatting styles
- Modify formatting styles
- Format spacing, alignment, and indentation
- Adjust font settings
- Insert pictures
- Insert hyperlinks
- Use the Equation Editor
- Insert Excel charts

### Background Information

This project uses text and illustrations from the U.S. Army Corps of Engineers' history of the McAlpine Locks and Dam complex, *Triumph at the Falls: The Louisville and Portland Canal*.

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### Instructions

**IMPORTANT:** Complete the steps below in the order they are given. Completing the steps out of order may complicate the assignment or result in an incorrect result.

1. Download and extract the provided Data Files ZIP file. It contains the following file for use in this assignment:
  - a. **mcalpine.rtf** – Text from chapter of *Triumph at the Falls: The Louisville and Portland Canal* [1].
  - b. **dimensions.xlsx** – Data on canal widths and lock lengths [1].
  - c. **boule.jpg** – Photo of a Boule gate[1].
  - d. **canal.jpg** – Photo of the Louisville and Portland Canal [1].
2. Create a new Microsoft Word document named **mcalpine\_ppsi\_mldp.docx**.

### Insert text from a file

3. On the first (blank) page of the document, insert the contents of the **mcalpine.rtf** file.

**NOTE:** The inserted text contains instructions (inside of "<>" symbols) for use in formatting the document. You should remove these instructions once you have applied the specified formatting.



# Styles & Illustrations

## McAlpine Locks & Dam Problem

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4. We must format the document.

### Apply formatting styles

- a. Apply formatting styles and changes to the report text as specified by the included comments.

Remove the included comments from your document once you have applied the required formatting.

### Modify formatting styles / Format spacing, alignment, and indentation / Adjust font settings

- b. Ensure the document conforms to the following requirements:
  - i. Modify the *Normal* formatting style to specify Cambria 11-point as the default font. Also, change the paragraph alignment to justified, use single line spacing, specify 8-point after paragraph spacing, and set the first line indent to 0.5-inches.
  - ii. Modify both the *Title* and *Heading 1* formatting styles to specify there should be no first line indent.
  - iii. Modify the *Quote* formatting style to change both the style it is based on and the style for the following paragraph from *Normal* to *No Spacing*. This will remove the extra spacing from the quotes.

### Insert pictures

5. We will insert illustrations into the document to supplement the text.
  - a. Where indicated, insert the picture **canal.jpg**. Size the image to be 1.8-inches high by 3-inches wide. Use square text wrapping, right-align the image, and set it to move with text.
  - b. Near the middle of the document, where indicated, insert the picture **boule.jpg**. Size the image to be 1.52-inches high by 3-inches wide. Use square text wrapping, left-align the image, and set it to move with text.

### Insert hyperlinks

6. We wish to insert a hyperlink to allow readers to learn about public domain works.
  - a. Where indicated in the first paragraph after the title, insert a hyperlink to the following URL:  
[http://en.wikipedia.org/wiki/Public\\_domain](http://en.wikipedia.org/wiki/Public_domain)



# Styles & Illustrations

## McAlpine Locks & Dam Problem

### Use the Equation Editor

7. We must insert an equation to represent the calculation of the volume of water held in the modern McAlpine locks.
- Where indicated, insert a new equation using the Microsoft Word equation tool representing the formula below. Horizontally center the equation. Your equation must identically reproduce:  

$$1200 \times 110 \times 9 = 1,188,000 \text{ cubic feet} = 8,886,860 \text{ gallons}$$

### Insert Excel charts

8. We will include a chart which shows the width of the Louisville and Portland Canal over time.
- Where indicated, include the chart from the *Canal Width Chart* sheet in the **dimensions.xlsx** Microsoft Excel workbook. Size the chart to be 4-inches high by 5-inches wide.
9. We will also include a chart to show length of the locks at the Falls of the Ohio. We will retain a link to the source data so that updates to the source file are reflected in our document.
- Where indicated, include the chart from the *Locks Length Chart* sheet in the **dimensions.xlsx** Microsoft Excel workbook. Size the chart to be 4-inches high by 4-inches wide. Use square text wrapping, left-align the chart, and set it to move with text.

### Grading Rubric

This assignment is worth 8 points. It will be graded by your instructor using this rubric:

Standard	Meets Requirements (8 points)	Does Not Meet Requirements (0 points)
Student made reasonable effort in correctly completing assignment.	Assignment is at least 70% complete and correct, or student contacted instructor for help on incorrect or incomplete items.	Assignment is less than 70% complete and correct, and student did not contact instructor for assistance on incorrect or incomplete items.

This rubric will be used for peer evaluation of this assignment:

Standard	Excellent	Satisfactory	Needs Improvement
Assignment is correct and complete.	Assignment is at least 90% complete and correct.	Assignment is 70%-89% complete and correct.	Assignment is less than 70% complete and correct.



# Styles & Illustrations

## McAlpine Locks & Dam Problem

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### References

- [1] L. R. Johnson and C. E. Parrish, *Triumph at the Falls: The Louisville and Portland Canal*. Louisville, Kentucky: U.S. Army Corps of Engineers, Louisville District, 2007.