

**Papillion Creek Lakes and Tributaries, NE  
General Reevaluation Report  
Omaha, Nebraska  
Addendum**



**US Army Corps  
of Engineers**

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## 1.0. PURPOSE

The purpose of this Addendum is to document changes to the project costs and benefits as presented in the Papillion Creek and Tributaries, Nebraska General Reevaluation Report (GRR). The GRR presented costs and benefits based on October 2020 (fiscal year [FY] 2021) price levels and a federal discount rate of 2.5 percent.

On October 28, 2021, the Walla Walla Cost Engineering Mandatory Center of Expertise recertified the Total Project Cost Summary (TPCS) in October 2021 (FY 2022) price levels. The economic benefits and costs have been updated using the October 2021 price level costs and the FY 2022 discount rate of 2.25 percent.

## 2.0. RECOMMENDED PLAN SUMMARY

The Project First Cost for the Recommended Plan is summarized in Table 1. The updated Total Project First Cost is \$143,647,700. Based on the FY 2022 discount rate and a 50-year period of analysis, average annual costs total \$5,454,200 for the Recommended Plan.

**Table 1: Recommended Plan Cost Summary (FY22 Price Level)**

| <b>Final Plan with Recreation</b>   | <b>South Papillion DS19 (with Recreation)</b> | <b>Thomas Creek DS10</b> | <b>Little Papillion Levee / Floodwall</b> | <b>Nonstructural</b> | <b>Total</b>         |
|-------------------------------------|---|--------------------------|---|----------------------|----------------------|
| Construction Cost                   | \$13,818,300                                  | \$9,345,800              | \$22,081,100                              | \$29,018,400         | \$74,263,600         |
| PED                                 | \$1,325,000                                   | \$891,200                | \$2,107,300                               | \$2,774,400          | \$7,097,800          |
| S&A                                 | \$1,060,000                                   | \$713,000                | \$1,685,900                               | \$2,219,500          | \$5,678,300          |
| Contingency                         | \$5,105,400                                   | \$3,403,300              | \$8,026,300                               | \$10,543,800         | \$27,078,800         |
| <b>Total Construction Costs</b>     | <b>\$21,308,600</b>                           | <b>\$14,353,300</b>      | <b>\$33,900,600</b>                       | <b>\$44,556,000</b>  | <b>\$114,118,500</b> |
| Lands & Damages                     | \$6,459,700                                   | \$7,604,600              | \$15,153,700                              | \$0                  | \$29,218,100         |
| Mitigation                          | \$265,800                                     | \$28,300                 | \$17,000                                  | \$0                  | \$311,100            |
| <b>Total First Costs</b>            | <b>\$28,034,100</b>                           | <b>\$21,986,200</b>      | <b>\$49,071,400</b>                       | <b>\$44,556,000</b>  | <b>\$143,647,700</b> |
| IDC (2.25%, 5yr, Mid)               | \$1,384,800                                   | \$1,231,300              | \$2,645,100                               | \$124,200            | \$5,385,300          |
| Total Investment Costs              | \$29,418,900                                  | \$23,217,500             | \$51,716,400                              | \$44,680,200         | \$149,033,000        |
| Annualized Investment Costs (2.25%) | \$986,100                                     | \$778,200                | \$1,733,500                               | \$1,497,600          | \$4,995,300          |
| Annual OMRR&R Costs                 | \$331,100                                     | \$198,300                | \$16,700                                  | \$0                  | \$546,100            |
| Annual Monitoring Costs             | \$800   | \$2,900                  | \$100                                     | \$0                  | \$3,700              |
| <b>Total Annual Costs</b>           | <b>\$1,317,900</b>                            | <b>\$979,400</b>         | <b>\$1,750,200</b>                        | <b>\$1,497,600</b>   | <b>\$5,545,200</b>   |

The updated average annual benefits for the structural, nonstructural, and recreation components of the Recommended Plan are provided in Table 2.

**Table 2: Recommended Benefits (FY22 Price Level)**

| Alternative      | Structural Average Annual Benefits | Nonstructural Average Annual Benefits | Recreation Average Annual Benefits | Total Average Annual Benefits |
|------------------|------------------------------------|---------------------------------------|------------------------------------|-------------------------------|
| Recommended Plan | \$5,503,900                        | \$2,962,000                           | \$860,800                          | \$9,326,600                   |

As shown Table 3 below, the Recommended Plan has \$3,782,000 in annual net benefits and a BCR of 1.7.

**Table 3: Recommended Plan (FY22 Price Level)**

| Alternative      | First Costs   | Average Annual Costs | Average Annual Benefits | BCR | Average Annual Net Benefits |
|------------------|---------------|----------------------|-------------------------|-----|-----------------------------|
| Recommended Plan | \$143,647,700 | \$5,545,200          | \$9,326,600             | 1.7 | \$3,781,400                 |

### 3.0. SEPARABLE COST-REMAINING BENEFIT (SCRB)

Due to the price level update to the costs and benefits, the SCR analysis for Dam Site 19 and the Recommended Plan cost share apportionment require updating as well. Table 4 displays the updated SCR analysis.

**Table 4: Dam Site 19 Separable Cost-Remaining Benefit**

|                                 | FRM         | Recreation  | Total       |
|---------------------------------|-------------|-------------|-------------|
| Average Annual Benefits         | \$1,096,200 | \$860,800   | \$1,957,000 |
| Single Purpose Alternative Cost | \$1,032,800 | \$1,317,900 | \$2,350,700 |
| Limited Benefits/Costs          | \$1,096,200 | \$860,800   | \$1,957,000 |
| Separable Costs                 | \$0         | \$285,200   | \$285,200   |
| Remaining Benefits              | \$1,096,200 | \$575,600   | \$1,671,800 |
| Percent of Total                | 65.6%       | 34.4%       | 100.0%      |
| Joint Costs                     |             |             | \$1,032,800 |
| Allocated Joint Cost            | \$677,200   | \$355,600   | \$1,032,800 |
| Total Allocation                | \$677,200   | \$640,800   | \$1,317,900 |
| Benefit-Cost Ratio              | 1.6         | 1.3         | 1.5         |

Notes: average annual values; FY22 price level; 2.25% discount rate.

### 4.0. COST SHARE

Table 5 below displays the updated Recommended Plan cost share by business line.

**Table 5: Recommended Plan Cost Share Apportionment**

| Flood Risk Management  | Federal | Non-Federal | Total                |
|--|---------|-------------|----------------------|
| Little Papillion Levee and Floodwall <sup>1</sup>            |         |             | \$33,125,500         |
| DS10 Dry Dam <sup>1</sup>                                    |         |             | \$13,235,800         |
| DS19 Reservoir (FRM Allocation) <sup>1</sup>                 |         |             | \$10,733,600         |
| <b>Total Structural Costs</b>                                |         |             | <b>\$101,651,000</b> |
| <b>Nonstructural Costs<sup>1</sup></b>                       |         |             | <b>\$44,556,000</b>  |
| Little Papillion Levee and Floodwall Mitigation <sup>1</sup> |         |             | \$26,100             |
| DS10 Dry Dam Mitigation <sup>1</sup>                         |         |             | \$43,400             |
| DS19 Reservoir Mitigation (FRM Allocation) <sup>1</sup>      |         |             | \$267,000            |
| <b>Total Mitigation Costs<sup>1, 2</sup></b>                 |         |             | <b>\$336,500</b>     |

|  |                     |                     |                      |
|--|---------------------|---------------------|----------------------|
| Little Papillion LERRD <sup>1,2</sup>                            |                     |                     | \$15,919,700         |
| DS10 LERRD <sup>1,2</sup>  |                     |                     | \$8,707,000          |
| DS19 LERRD (FRM Allocation) <sup>1,2</sup>                       |                     |                     | \$4,502,900          |
| <b>Total LERRD Costs</b>   |                     |                     | <b>\$29,129,600</b>  |
| <b>Total FRM First Costs</b>                                     |                     |                     | <b>\$131,117,100</b> |
| <b>Cost-Sharing Breakdown (FRM)</b>                              |                     |                     |                      |
| Non-Federal LERRD  |                     | \$29,129,600        |                      |
| Non-Federal minimum 5% cash (FRM)                                |                     | \$6,555,900         |                      |
| Non-Federal additional cash (FRM)                                |                     | \$10,205,500        |                      |
| <b>Total Cost-Share Amount FRM</b>                               | <b>\$85,226,000</b> | <b>\$45,891,000</b> | <b>\$131,117,000</b> |
| <b>Cost Share Percentage</b>                                     | <b>65%</b>          | <b>35%</b>          | <b>100%</b>          |
| <b>Recreation</b>  | <b>Federal</b>      | <b>Non-Federal</b>  | <b>Total</b>         |
| DS19 Reservoir Construction (Recreation Allocation) <sup>1</sup> |                     |                     | \$5,636,600          |
| DS19 Reservoir Mitigation (Recreation Allocation) <sup>1</sup>   |                     |                     | \$140,200            |
| DS19 LERRD (Recreation Allocation) <sup>1,2</sup>                |                     |                     | \$2,364,600          |
| <b>Total Recreation Allocated Costs</b>                          |                     |                     | <b>\$8,141,400</b>   |
| DS19 Recreation Facilities <sup>1</sup>                          |                     |                     | \$4,389,200          |
| <b>Total Recreation Separable Costs</b>                          |                     |                     | <b>\$4,389,200</b>   |
| <b>Total Recreation First Costs</b>                              |                     |                     | <b>\$12,530,600</b>  |
| <b>Cost-Sharing Breakdown (Recreation)</b>                       |                     |                     |                      |
| Non-Federal LERRD  |                     | \$2,364,600         |                      |
| Non-Federal cash (Recreation)                                    |                     | \$3,900,700         |                      |
| <b>Total Cost Share Amount Recreation</b>                        | <b>\$6,265,300</b>  | <b>\$6,265,300</b>  | <b>\$12,530,600</b>  |
| <b>Cost Share Percentage</b>                                     | <b>50%</b>          | <b>50%</b>          | <b>100%</b>          |
| <b>Total Recommended Plan</b>                                    | <b>Federal</b>      | <b>Non-Federal</b>  | <b>Total</b>         |
| <b>FRM Non-Federal LERRD</b>                                     |                     | <b>\$29,129,600</b> |                      |
| <b>FRM Non-Federal Cash</b>                                      |                     | <b>\$16,761,400</b> |                      |
| <b>FRM Cost Share</b>  | <b>\$85,226,100</b> | <b>\$45,891,000</b> | <b>\$131,117,100</b> |
| <b>Recreation Non-Federal LERRD</b>                              |                     | <b>\$2,364,600</b>  |                      |
| <b>Recreation Non-Federal Cash</b>                               |                     | <b>\$3,900,700</b>  |                      |
| <b>Recreation Cost Share</b>                                     | <b>\$6,265,300</b>  | <b>\$6,265,300</b>  | <b>\$12,530,600</b>  |
| <b>Total Cost Share<sup>3</sup></b>                              | <b>\$91,491,400</b> | <b>\$52,156,300</b> | <b>\$143,647,700</b> |
| <b>Total Cost Share Percentage</b>                               | <b>63.7%</b>        | <b>36.3%</b>        | <b>100.0%</b>        |

<sup>1</sup> Costs include PED, S&A, Contingency

<sup>2</sup> LERRD costs include lands and damages, real estate considerations, and relocations.

<sup>3</sup> The individual costs add up to \$143,647,000 when they are rounded individually. However, when you sum them prior to rounding, it rounds up to \$143,648,000.

## 5.0. REGIONAL ECONOMIC DEVELOPMENT

In addition to the benefits accounted for within the NED account, the implementation of the Recommended Plan would result in local economic activity which is accounted for within the RED account. The Recommended Plan is expected to result in approximately \$114,117,300 in construction expenditures across the region. These expenditures are expected to occur during construction of the project. These construction expenditures are expected to support approximately 1,650 local jobs and approximately \$121,455,100 in local value added within local impact area. Table 6 shows the regional economic impacts to the local area.

**Table 6: Regional Economic Development**

| <b>Local Area</b> | <b>Local Capture</b> | <b>Output</b> | <b>Jobs</b> | <b>Labor Income</b> | <b>Value Added</b> |
|-------------------|----------------------|---------------|-------------|---------------------|--------------------|
| Direct Impact     |                      | \$98,611,000  | 1,049       | \$77,665,700        | \$54,191,600       |
| Secondary Impact  |                      | \$117,176,300 | 603         | \$39,209,800        | \$67,263,500       |
| Total Impact      | \$98,610,900         | \$215,787,100 | 1,652       | \$116,875,400       | \$121,455,100      |