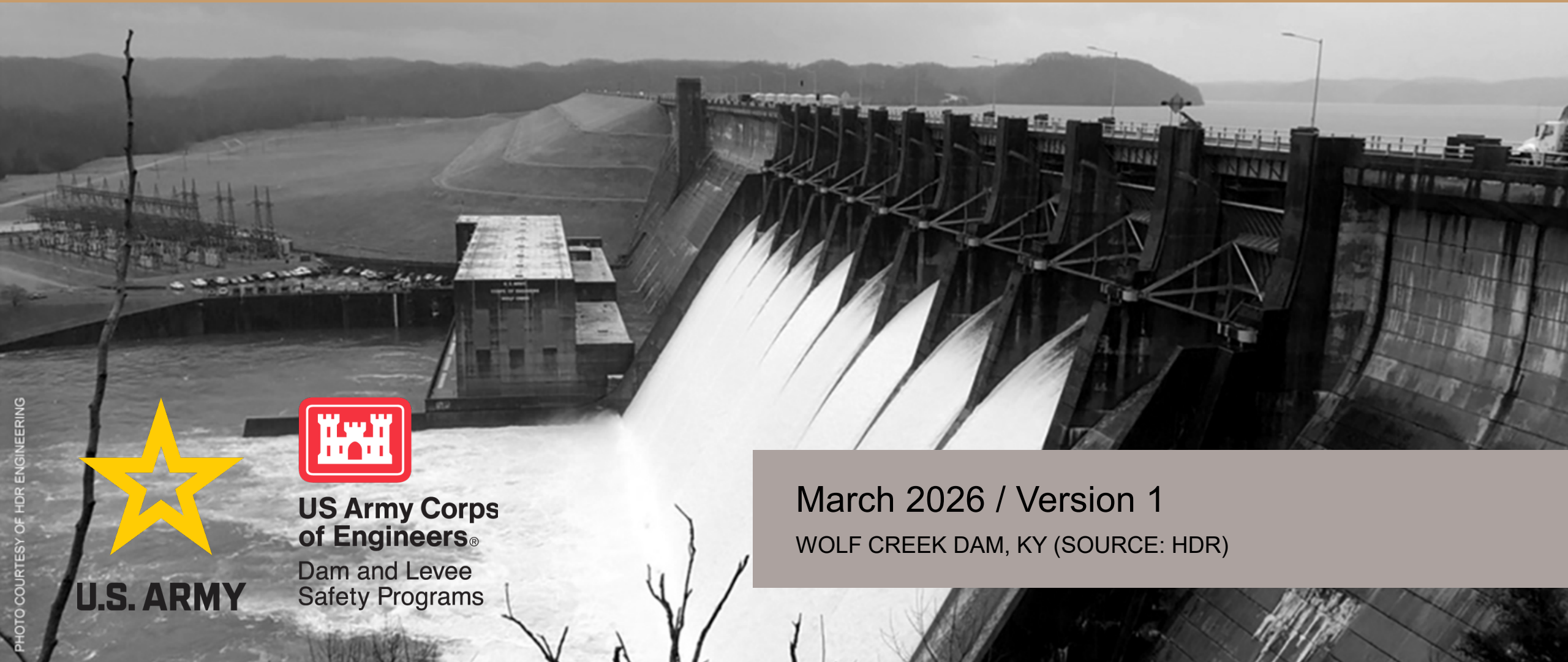


BestFit Exercise Overview

DLS-114, Module 1.14



U.S. ARMY



**US Army Corps
of Engineers®**

Dam and Levee
Safety Programs

March 2026 / Version 1

WOLF CREEK DAM, KY (SOURCE: HDR)

Tasks

1. Explore alternative three parameter distributions

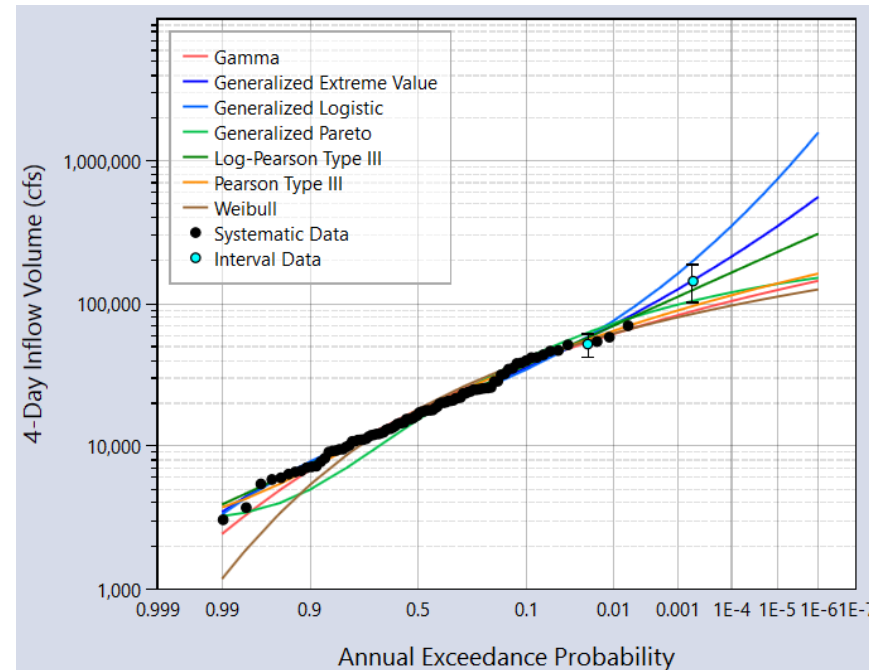
Additional Tasks

2. Explore distribution fitting analysis for alternative input datasets
3. Compare distribution fitting analyses

Task 1

Explore Alternative Three Parameter Distributions

| | Distribution | AIC | BIC | RMSE ▲ |
|-------------------------------------|---------------------------|---------|---------|---------|
| <input checked="" type="checkbox"/> | Generalized Extreme Value | 2076.25 | 2083.75 | 2214.74 |
| <input type="checkbox"/> | Log-Normal | 2073.29 | 2078.34 | 2616.74 |
| <input type="checkbox"/> | Ln-Normal | 2073.29 | 2078.34 | 2616.76 |
| <input checked="" type="checkbox"/> | Log-Pearson Type III | 2075.42 | 2082.92 | 2676.78 |
| <input type="checkbox"/> | Exponential | 2090.41 | 2095.45 | 4480.45 |
| <input checked="" type="checkbox"/> | Pearson Type III | 2078.71 | 2086.21 | 5027.86 |
| <input checked="" type="checkbox"/> | Generalized Pareto | 2090.80 | 2098.30 | 5063.28 |
| <input checked="" type="checkbox"/> | Gamma | 2081.23 | 2086.28 | 5833.65 |
| <input checked="" type="checkbox"/> | Weibull | 2091.84 | 2096.89 | 6374.50 |
| <input type="checkbox"/> | Gumbel (EVI) | 2085.71 | 2090.75 | 6437.70 |
| <input checked="" type="checkbox"/> | Generalized Logistic | 2078.56 | 2086.06 | 6458.77 |
| <input type="checkbox"/> | Logistic | 2115.87 | 2120.91 | 8381.34 |
| <input type="checkbox"/> | Normal | 2139.17 | 2144.21 | 9121.33 |



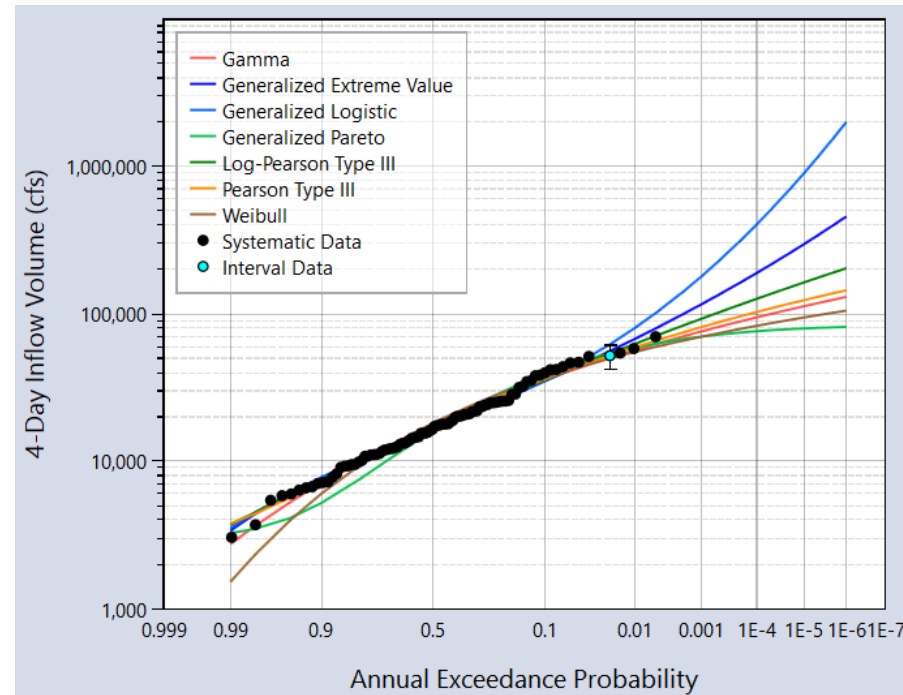
Additional Tasks



Task 2

Explore Distribution Fitting Analysis for Alternative Input Datasets

| | Distribution | AIC | BIC | RMSE |
|-------------------------------------|---------------------------|---------|---------|---------|
| <input type="checkbox"/> | Exponential | 2078.19 | 2083.21 | 3831.45 |
| <input checked="" type="checkbox"/> | Gamma | 2062.44 | 2067.46 | 1959.74 |
| <input checked="" type="checkbox"/> | Generalized Extreme Value | 2063.21 | 2070.68 | 2168.62 |
| <input checked="" type="checkbox"/> | Generalized Logistic | 2064.98 | 2072.44 | 4433.98 |
| <input checked="" type="checkbox"/> | Generalized Pareto | 2071.02 | 2078.48 | 2010.37 |
| <input type="checkbox"/> | Gumbel (EVI) | 2066.41 | 2071.43 | 2573.37 |
| <input type="checkbox"/> | Ln-Normal | 2060.02 | 2065.04 | 1844.54 |
| <input type="checkbox"/> | Logistic | 2092.54 | 2097.57 | 4515.71 |
| <input type="checkbox"/> | Log-Normal | 2060.02 | 2065.04 | 1844.56 |
| <input checked="" type="checkbox"/> | Log-Pearson Type III | 2061.67 | 2069.14 | 1521.56 |
| <input type="checkbox"/> | Normal | 2100.96 | 2105.98 | 4492.47 |
| <input checked="" type="checkbox"/> | Pearson Type III | 2061.84 | 2069.30 | 1525.32 |
| <input checked="" type="checkbox"/> | Weibull | 2069.60 | 2074.63 | 2339.58 |



Task 3

Compare Distribution Fitting Analyses

? Questions

