

A high-contrast, black and white photograph of water splashing, with numerous droplets and bubbles captured in mid-air, creating a dynamic and textured background. The water appears to be falling or splashing from the top, with some droplets in sharp focus while others are blurred, giving a sense of motion and depth.

Governors' Office of Management and Budget

# Executive Water Finance Board

Preliminary financial and economic analysis of large water projects

19 August 2019

# Agenda

1. EY scope and schedule
2. Phase 1 – identifying potential financing options
3. Phase 2 – LPP financial model and payment scenarios

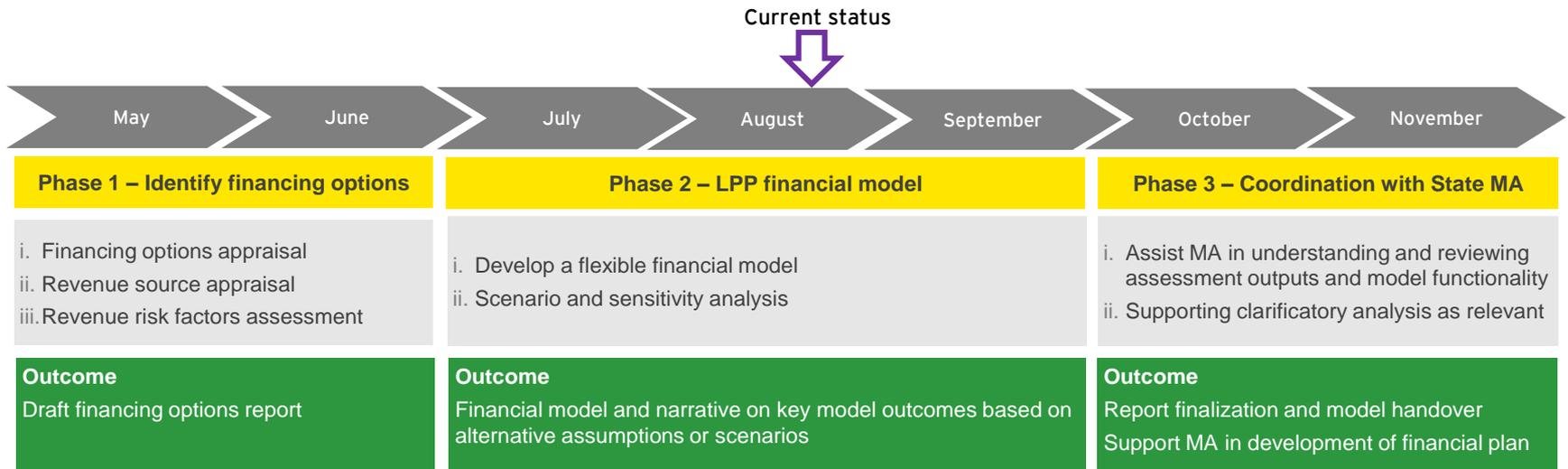




# 1. EY scope and schedule

- ▶ EY has been engaged by the Utah Division of Water Resources (DWRe) to provide a preliminary assessment of alternative funding and financing options to support the delivery of large water projects in Utah. It is also developing a financial model that helps to analyze the financial impact of the Lake Powell Pipeline (LPP) on the State, and the viability of the project under different funding, financing and revenue scenarios.
- ▶ The objective of this analysis is to provide DWRe’s Municipal Advisor (Zions Public Finance) with relevant market knowledge, options analysis and financial modeling tools to help it develop a set of recommendations and an appropriate financial plan for the delivery of large water projects in Utah.
- ▶ EY is not itself providing any conclusions or recommendations on the appropriate financing or delivery of water projects.

## Project timeline and scope summary





# Phase 1 – identifying potential financing options

## (i) Financing options appraisal

- ▶ EY analyzed a range of funding and financing sources available at a federal, state and local level, as well as other alternative sources, to provide the necessary capital to fund the development and construction of large (\$1b+) water projects in Utah.
- ▶ A qualitative pros and cons assessment was undertaken for each source, and a traffic light system was used to indicate source relevance based on the following key criteria:

**1. Capacity:** likely capacity of a funding or financing source to materially contribute to the capital cost of the project

**2. Cost of capital:** the requirement to repay capital and the cost of any associated finance

**3. Tenor:** term of the funding/financing source, including grace period and interest capitalization

**4. Access:** project eligibility criteria, borrower profile, terms and condition inherent to the program

**5. Credit reliance:** the reliance of the source of capital on credit enhancements or additional support

Potential funding and financing sources covered in the analysis

Federal	State
<ul style="list-style-type: none"> <li>▶ Appropriations</li> <li>▶ Agency grants or loans</li> <li>▶ Water Infrastructure Finance &amp; Innovation Act (WIFIA)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Appropriations</li> <li>▶ Water Infrastructure Restricted Account (WIRA)</li> <li>▶ Division of Water Resources revolving funds</li> <li>▶ Clean / Drinking Water State Revolving Funds</li> <li>▶ General obligation bonds</li> <li>▶ Revenue bonds</li> <li>▶ Recapitalization of water loan funds</li> </ul>
Local	Alternative
<ul style="list-style-type: none"> <li>▶ Cash reserves</li> <li>▶ Water impact fees</li> <li>▶ Water user rates</li> <li>▶ Allocated property tax</li> <li>▶ Locally-issued bonds</li> </ul>	<ul style="list-style-type: none"> <li>▶ Private finance</li> <li>▶ Interest buy-down</li> <li>▶ Credit enhancement</li> </ul>

# Phase 1 — identifying potential financing options

## (ii) Revenue source appraisal

EY also analyzed the various sources of revenue available to the local districts to repay the project costs.

The primary sources of revenue evaluated are as follows:

- ▶ **Impact fees:** one-time fee levied on new property developments utilizing local water infrastructure
- ▶ **User rates:** consumption-based charges on residential, commercial and industrial water users based on consumption
- ▶ **Property taxes:** % of tax levy allocated to support funding of water systems

**Assessment of funding and financing options for large water projects in the State of Utah**  
Prepared on behalf of Utah Division of Water Resources

**B. Project repayment**

This section discusses the advantages and limitations relating to the three main revenue sources that are likely to be utilized by local project beneficiaries to meet outstanding nonrevenue infrastructure and construction costs in accordance with the LWF Development Act and their Water Development Act, specifically:

- 1) Impact fees
- 2) User rates
- 3) Property taxes

The prior section also discussed the potential need for bridging funds (taking account of the potential timing difference between debt service and financing received to meet capital costs) and project revenues (derived from the Districts). For comparison, it also acknowledges that the following financing may be utilized upon as sources of project repayment in a "bridging" capacity where those revenues are not sufficient in timing or quantum to meet debt service or other financing cost liabilities:

- 1) Appropriations
- 2) State or State-related revenue
- 3) Grant/Loan of money

The Districts' EPCAs (State Districts) estimated the LWF should be repaid by year 2028, which means repays and payments by districts indicate that the base-line development project may be repaid by year 2028 and to cover any other development efforts. As such, this section primarily focuses on the LWF project and the ability of the MFCDC and MFCDO to meet the capital and revenue needs for the project. The project cost is estimated to be \$100 million. The MFCDC and MFCDO will be required to fund the project, which is estimated to be \$100 million. The MFCDC and MFCDO will be required to fund the project, which is estimated to be \$100 million.

**Spotlight on LWF and MFCDO's proposed funding approach**

MFCDO has stated that it is likely to contract almost all of its permitted capacity within the first 30 years of project operations. This is because it is already depending on the 10-year water supply buffer and intends to contract an initial 10-year term of capacity within the project's 10-year term. It is likely to contract an initial 10-year term of capacity within the project's 10-year term. It is likely to contract an initial 10-year term of capacity within the project's 10-year term.

The graph illustrates MFCDO's current supply projection model, which includes anticipated water storage capacity, purchased increments, and cumulative annual water offsets. The graph shows a steady increase in water supply over time, with a significant jump around 2020. The y-axis ranges from 0 to 100 cfs, and the x-axis shows years from 2010 to 2030.

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**Utah Cultural Water Impact Fees - Residential**

**Limitations**

- Relies on demand growth projections; if demand does not increase as expected, the revenue will be lower than projected.
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**C. Revenue Risk Factors**

The goal of this assessment is to identify revenue sources available to fund water system capital costs, estimate total debt service to determine a portion of the total revenue available to pay project costs, and identify the revenue sources that are most likely to be used to pay project costs. This assessment is based on the following assumptions:

- 1) Economic and population growth
- 2) Water conservation efforts
- 3) Property tax revenue
- 4) Other revenue sources

**1. Economic and population growth**

Economic and population growth are key factors in determining the revenue available to fund water system capital costs. The assessment uses the following assumptions:

- Economic growth is projected to continue at a steady rate.
- Population growth is projected to continue at a steady rate.

**Revenue Risk Considerations**

The project's revenue risk is primarily related to the uncertainty of economic and population growth. The assessment uses the following assumptions:

- Economic growth is projected to continue at a steady rate.
- Population growth is projected to continue at a steady rate.

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**of funding and financing options for large water projects in the State of Utah**

**conservation efforts**

Water conservation efforts can significantly reduce the demand for water, thereby reducing the revenue available to fund water system capital costs. The assessment uses the following assumptions:

- Water conservation efforts are projected to continue at a steady rate.
- Water conservation efforts are projected to continue at a steady rate.

**Revenue Risk Considerations**

The project's revenue risk is primarily related to the uncertainty of water conservation efforts. The assessment uses the following assumptions:

- Water conservation efforts are projected to continue at a steady rate.
- Water conservation efforts are projected to continue at a steady rate.

## (iii) Revenue risk factors assessment

The following potential risk factors were identified that could impact the timing and quantum of revenue available to repay the project:

- ▶ Economic and population growth
- ▶ Water conservation efforts
- ▶ Price elasticity and rate structuring
- ▶ User-based fees vs fiscal tools
- ▶ Affordability

## Phase 2 – LPP financial model and payment scenarios



Given the specific financial and technical elements of the LPP project are continuing to evolve, and the potential for different applications of the provisions of the LPP Development Act, a financial model was developed with sufficient functionality and flexibility to enable DWRe and its Municipal Advisor to assess the financial impact of the project based on range of alternative assumptions or inputs relating to both the project itself, and the financing, funding and revenue approaches assumed by the State and Districts.

The financial model can accommodate different outcomes based on a range of sensitivities and scenarios including the following\*:

- ▶ Project delivery
  - ▶ Construction schedule and capital cost
  - ▶ Pipeline capacity
  - ▶ Upfront capital cost contribution share between State and Districts
  - ▶ Operation and maintenance costs and timing
  - ▶ Sources and quantum of funding or financing for project development
  - ▶ Financing terms and provisions (specific to particular sources)
- ▶ District repayment and ability to pay
  - ▶ Water purchasing mechanism
  - ▶ Project repayment mechanism and effective price per acre foot
  - ▶ Sources and quantum of funding or revenues for repayment of project and/or financing
  - ▶ Anticipated population growth and water consumption profiles
  - ▶ Rate, fee and tax assumptions underpinning anticipated revenue streams
  - ▶ Price elasticity of demand

\* The list provides an example of areas where the inputs, assumptions or calculation methodologies can be varied, but is not an exhaustive list



# Q&A...

