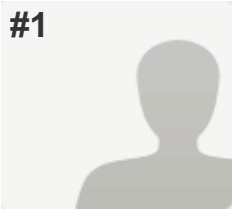


#1



COMPLETE

Collector: Email Invitation 1 (Email)

Started: Tuesday, July 19, 2016 12:07:09 PM

Last Modified: Tuesday, July 19, 2016 12:27:11 PM

Time Spent: 00:20:01

Email: Mike.Personett@austintexas.gov

IP Address: 162.89.0.58

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Mike Personett

Q2: Water Supply Benefit

Water Reliability: Baseline (Period of Record, Including recent Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout baseline hydrologic period record (including the recent critical period of 2008-2016)?

,

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Supply DiversificationHow many independently managed water supply and demand-side management options are included in the portfolio?

,

Operational ImpactTo what extent does the portfolio increase the operational complexity of Austin's water infrastructure, conveyance, treatment, and distribution?

,

Comments

The thrust of any objectives related to water supply is to define a projected need (quantity and timing). I support this being based on alternative supply and demand scenarios. And as I've previously stated, to account for further water efficiency gains (conservation) and onsite use of ancillary water supplies (e.g., stormwater, reclaimed water, AC condensate, gray water, etc.), I think the "need" should be defined as the amount of water that the community (Austin Water) will need to deliver to the customer. Accordingly, both conservation and ancillary supplies should be included on the "demand side" of the equation. I don't see storage capacity or local control as meaningful objectives. With the premise that the Colorado River remains the primary supply source well into the future, storage and control is driven by water rights/contracts for firm supply and LCRA system management policies, subject to State review/approval. Supply diversification is important and can be considered "insurance" (related to risk management and reliability) but must be considered in light of need and risks and costs to ratepayers.

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

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Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

Comments

External funding potential for water supply development is virtually non-existent aside from loan programs offered through the Texas Water Development Board. Often those loan programs offer no cost advantage to water utilities that have comparable credit ratings.

Q4: Environmental Impacts

Habitat ImpactsTo what extent does the portfolio positively or negatively impact habitats throughout Austin (terrestrial or aquatic)?

,

Natural Environment Water Quality ImpactDoes the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

,

Energy UseWhat is the net energy requirement of the portfolio?

,

Comments

Not sure why water conservation would be included as a measure of environmental impact or benefit unless it allows avoidance of alternatives that have high environmental impact.

Q5: Social Impacts

Multi-Beneficial Infrastructure/ProgramTo what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

,

Impacts to Water Based RecreationTo what extent does the portfolio positively or negatively impact water-based activities (i.e. boating, kayaking, swimming, fishing, etc.)?

,

Impacts on Neighboring Water Supplies/SourcesTo what extent does the portfolio have positive or negative impacts to the water quantity of another municipal provider's existing water supply or other domestic water supplies?

,

Comments

Impacts to neighboring water supply would only be relevant in the consideration of regional groundwater supply options, such as the Carrizo-Wilcox Aquifer. As stated by Mr. Rodrigo, compliance with regulatory requirements is a given and can be captured to some degree in costs (e.g., advanced levels of treatment of a supply to meet Safe Drinking Water Act standards).

Q6: Implementation Impacts

Regulatory ApprovalHow difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

,

Public AcceptanceWhat level of public support is anticipated for the portfolio?

,

Legal/Contractual UncertaintiesTo what degree may legal or contractual issues hamper the portfolio in delivering the water supply?

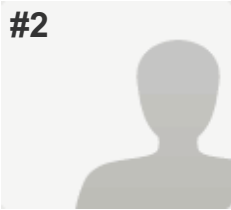
,

ScalabilityTo what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

,

Technical FeasibilityTo what extent does the portfolio rely on emerging and/or unproven technologies?

#2



COMPLETE

Collector: Email Invitation 1 (Email)

Started: Thursday, July 21, 2016 4:12:35 PM

Last Modified: Thursday, July 21, 2016 4:32:51 PM

Time Spent: 00:20:15

Email: Lucia.Athens@austintexas.gov

IP Address: 162.89.0.57

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Lucia Athens

Q2: Water Supply Benefit

Water Reliability: Baseline (Period of Record, Including recent Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout baseline hydrologic period record (including the recent critical period of 2008-2016)?

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Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Supply DiversificationHow many independently managed water supply and demand-side management options are included in the portfolio?

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

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Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

Energy GenerationDoes the portfolio have an opportunity for energy generation/energy offset?

Water Forward - Objectives and Sub-Objectives

Q4: Environmental Impacts

Habitat ImpactsTo what extent does the portfolio positively or negatively impact habitats throughout Austin (terrestrial or aquatic)?

,

Energy UseWhat is the net energy requirement of the portfolio?

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Water Use EfficiencyWhat is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

Q5: Social Impacts

Multi-Beneficial Infrastructure/ProgramTo what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

,

Impacts to Local EconomyTo what extent the portfolio have a positive or negative impact on the local economy, including job creation?

,

Public Health & Safety ImpactsTo what extent does the portfolio increase the complexity of AW's requirements to meet all Federal, State, and local public health and safety regulations?

Q6: Implementation Impacts

Technical FeasibilityTo what extent does the portfolio rely on emerging and/or unproven technologies?

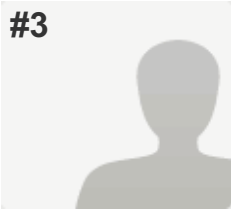
,

ScalabilityTo what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

,

Regulatory ApprovalHow difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

#3



COMPLETE

Collector: Email Invitation 1 (Email)
Started: Friday, July 22, 2016 5:20:09 PM
Last Modified: Friday, July 22, 2016 5:24:48 PM
Time Spent: 00:04:39
Email: wmoriarty@austin.rr.com
IP Address: 24.55.32.53

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

William Moriarty

Q2: Water Supply Benefit

Water Reliability: Baseline (Period of Record, Including recent Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout baseline hydrologic period record (including the recent critical period of 2008-2016)?

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Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Local ControlTo what extent does AW have control over the quantity and storage of water and operation of strategies (especially during drought periods) included in the portfolio?

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

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Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

External Funding PotentialDoes the portfolio have an opportunity for external funding such as Federal, State, local, and private sources?

Water Forward - Objectives and Sub-Objectives

Q4: Environmental Impacts

Habitat ImpactsTo what extent does the portfolio positively or negatively impact habitats throughout Austin (terrestrial or aquatic)?

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Natural Environment Water Quality ImpactDoes the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

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Water Use EfficiencyWhat is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

Q5: Social Impacts

Multi-Beneficial Infrastructure/ProgramTo what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

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Impacts to Water Based RecreationTo what extent does the portfolio positively or negatively impact water-based activities (i.e. boating, kayaking, swimming, fishing, etc.)?

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Public Health & Safety ImpactsTo what extent does the portfolio increase the complexity of AW's requirements to meet all Federal, State, and local public health and safety regulations?

Q6: Implementation Impacts

Regulatory ApprovalHow difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

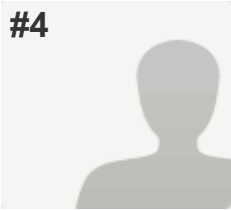
,

Public AcceptanceWhat level of public support is anticipated for the portfolio?

,

Technical FeasibilityTo what extent does the portfolio rely on emerging and/or unproven technologies?

#4



COMPLETE

Collector: Email Invitation 1 (Email)

Started: Saturday, July 23, 2016 10:41:41 AM

Last Modified: Saturday, July 23, 2016 10:52:06 AM

Time Spent: 00:10:25

Email: pl@perrylorenz.com

IP Address: 208.72.40.170

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Perry Lorenz

Q2: Water Supply Benefit

Supply DiversificationHow many independently managed water supply and demand-side management options are included in the portfolio?

,

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

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Water Reliability: Baseline (Period of Record, Including recent Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout baseline hydrologic period record (including the recent critical period of 2008-2016)?

Q3: Economic Impacts

External Funding PotentialDoes the portfolio have an opportunity for external funding such as Federal, State, local, and private sources?

,

Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

Water Forward - Objectives and Sub-Objectives

Q4: Environmental Impacts

Water Use EfficiencyWhat is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

,

Energy UseWhat is the net energy requirement of the portfolio?

,

Natural Environment Water Quality ImpactDoes the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

Q5: Social Impacts

Public Health & Safety ImpactsTo what extent does the portfolio increase the complexity of AW's requirements to meet all Federal, State, and local public health and safety regulations?

,

Impacts on Neighboring Water Supplies/SourcesTo what extent does the portfolio have positive or negative impacts to the water quantity of another municipal provider's existing water supply or other domestic water supplies?

,

Multi-Beneficial Infrastructure/ProgramTo what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

Q6: Implementation Impacts

Technical FeasibilityTo what extent does the portfolio rely on emerging and/or unproven technologies?

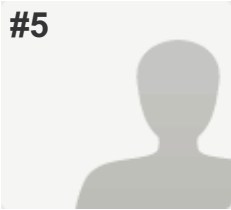
,

ScalabilityTo what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

,

Public AcceptanceWhat level of public support is anticipated for the portfolio?

#5



COMPLETE

Collector: Email Invitation 1 (Email)

Started: Monday, July 25, 2016 12:47:22 PM

Last Modified: Monday, July 25, 2016 1:03:33 PM

Time Spent: 00:16:11

Email: srichards@cgmf.org

IP Address: 72.182.42.57

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Sarah Richards

Q2: Water Supply Benefit

Water Reliability: Baseline (Period of Record, Including recent Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout baseline hydrologic period record (including the recent critical period of 2008-2016)?

,

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Storage CapacityHow much storage is in the portfolio for use by AW?

,

Comments

I feel like supply diversification will kind of be addressed via the water reliability subjective; the ability of a portfolio to be resilience will accomplish what supply diversification aim to achieve

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

External Funding PotentialDoes the portfolio have an opportunity for external funding such as Federal, State, local, and private sources?

Q4: Environmental Impacts

Habitat ImpactsTo what extent does the portfolio positively or negatively impact habitats throughout Austin (terrestrial or aquatic)?

,

Natural Environment Water Quality ImpactDoes the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

,

Energy UseWhat is the net energy requirement of the portfolio?

,

Water Use EfficiencyWhat is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

,

Comments

Habitat impacts should also include impact on downstream habitats (as these are not necessarily the same as "neighboring water supplies/sources", subjective in "Social Impacts")

Q5: Social Impacts

Multi-Beneficial Infrastructure/ProgramTo what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

,

Impacts to Local EconomyTo what extent the portfolio have a positive or negative impact on the local economy, including job creation?

,

Impacts on Neighboring Water Supplies/SourcesTo what extent does the portfolio have positive or negative impacts to the water quantity of another municipal provider's existing water supply or other domestic water supplies?

,

Comments

"Impacts to Local Economy" SHOULD include impact to citizens, not impacts to city departments/city budget

Q6: Implementation Impacts

Legal/Contractual UncertaintiesTo what degree may legal or contractual issues hamper the portfolio in delivering the water supply?

,

ScalabilityTo what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

,

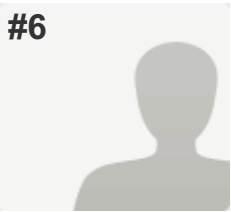
Technical FeasibilityTo what extent does the portfolio rely on emerging and/or unproven technologies?

,

Comments

Public Acceptance is important, but given that this is a 100 year plan, I feel there is adequate time to build the acceptance as we move the plan forward. We hope that this portfolio will pave the road for other communities to rethink water. Some of the projects will seem groundbreaking now, but will be much further advanced and common place by the time we implement them.

#6



COMPLETE

Collector: Email Invitation 1 (Email)
Started: Tuesday, July 26, 2016 10:33:28 AM
Last Modified: Tuesday, July 26, 2016 10:43:12 AM
Time Spent: 00:09:44
Email: Greg.Meszaros@austintexas.gov
IP Address: 162.89.0.57

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Greg Meszaros

Q2: Water Supply Benefit

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Local ControlTo what extent does AW have control over the quantity and storage of water and operation of strategies (especially during drought periods) included in the portfolio?

,

Supply DiversificationHow many independently managed water supply and demand-side management options are included in the portfolio?

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

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Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

Q4: Environmental Impacts

Natural Environment Water Quality Impact Does the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

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Energy Use What is the net energy requirement of the portfolio?

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Water Use Efficiency What is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

Q5: Social Impacts

Multi-Beneficial Infrastructure/Program To what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

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Impacts to Local Economy To what extent the portfolio have a positive or negative impact on the local economy, including job creation?

,

Public Health & Safety Impacts To what extent does the portfolio increase the complexity of AW's requirements to meet all Federal, State, and local public health and safety regulations?

Q6: Implementation Impacts

Regulatory Approval How difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

,

Public Acceptance What level of public support is anticipated for the portfolio?

,

Technical Feasibility To what extent does the portfolio rely on emerging and/or unproven technologies?

#7



COMPLETE

Collector: Email Invitation 1 (Email)

Started: Wednesday, July 27, 2016 2:16:13 PM

Last Modified: Wednesday, July 27, 2016 2:21:37 PM

Time Spent: 00:05:23

Email: clintdawson13@yahoo.com

IP Address: 128.62.208.160

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Clint Dawson

Q2: Water Supply Benefit

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Storage CapacityHow much storage is in the portfolio for use by AW?

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

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Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

Q4: Environmental Impacts

Natural Environment Water Quality ImpactDoes the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

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Water Use EfficiencyWhat is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

Water Forward - Objectives and Sub-Objectives

Q5: Social Impacts

Multi-Beneficial Infrastructure/Program To what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

,

Public Health & Safety Impacts To what extent does the portfolio increase the complexity of AW's requirements to meet all Federal, State, and local public health and safety regulations?

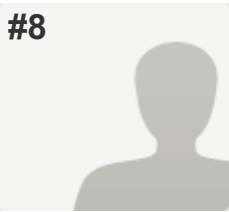
Q6: Implementation Impacts

Regulatory Approval How difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

,

Technical Feasibility To what extent does the portfolio rely on emerging and/or unproven technologies?

#8



COMPLETE

Collector: Email Invitation 1 (Email)
Started: Thursday, July 28, 2016 1:51:44 PM
Last Modified: Thursday, July 28, 2016 1:53:32 PM
Time Spent: 00:01:48
Email: kzerrenner@edf.org
IP Address: 38.67.2.18

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Kate Zerrenner

Q2: Water Supply Benefit

Water Reliability: Baseline (Period of Record, Including recent Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout baseline hydrologic period record (including the recent critical period of 2008-2016)?

,

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Operational ImpactTo what extent does the portfolio increase the operational complexity of Austin's water infrastructure, conveyance, treatment, and distribution?

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

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Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

Energy GenerationDoes the portfolio have an opportunity for energy generation/energy offset?

Q4: Environmental Impacts

Natural Environment Water Quality Impact Does the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

,

Energy Use What is the net energy requirement of the portfolio?

,

Water Use Efficiency What is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

Q5: Social Impacts

Multi-Beneficial Infrastructure/Program To what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

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Impacts to Local Economy To what extent the portfolio have a positive or negative impact on the local economy, including job creation?

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Public Health & Safety Impacts To what extent does the portfolio increase the complexity of AW's requirements to meet all Federal, State, and local public health and safety regulations?

Q6: Implementation Impacts

Regulatory Approval How difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

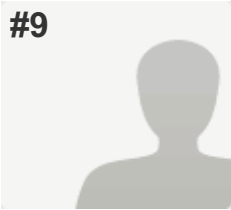
,

Legal/Contractual Uncertainties To what degree may legal or contractual issues hamper the portfolio in delivering the water supply?

,

Scalability To what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

#9



COMPLETE

Collector: Email Invitation 1 (Email)
Started: Sunday, July 31, 2016 10:22:17 PM
Last Modified: Sunday, July 31, 2016 10:33:27 PM
Time Spent: 00:11:10
Email: diane@dianekennedy.com
IP Address: 99.156.92.173

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Diane Kennedy

Q2: Water Supply Benefit

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Local ControlTo what extent does AW have control over the quantity and storage of water and operation of strategies (especially during drought periods) included in the portfolio?

,

Supply DiversificationHow many independently managed water supply and demand-side management options are included in the portfolio?

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

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Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

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Energy GenerationDoes the portfolio have an opportunity for energy generation/energy offset?

Q4: Environmental Impacts

Habitat Impacts To what extent does the portfolio positively or negatively impact habitats throughout Austin (terrestrial or aquatic)?

,

Natural Environment Water Quality Impact Does the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

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Energy Use What is the net energy requirement of the portfolio?

Q5: Social Impacts

Multi-Beneficial Infrastructure/Program To what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

,

Impacts to Water Based Recreation To what extent does the portfolio positively or negatively impact water-based activities (i.e. boating, kayaking, swimming, fishing, etc.)?

,

Impacts to Local Economy To what extent the portfolio have a positive or negative impact on the local economy, including job creation?

Q6: Implementation Impacts

Regulatory Approval How difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

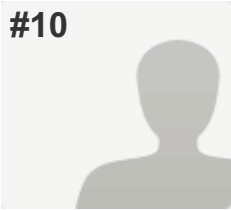
,

Legal/Contractual Uncertainties To what degree may legal or contractual issues hamper the portfolio in delivering the water supply?

,

Technical Feasibility To what extent does the portfolio rely on emerging and/or unproven technologies?

#10



COMPLETE

Collector: Email Invitation 1 (Email)

Started: Monday, August 01, 2016 5:41:03 AM

Last Modified: Monday, August 01, 2016 5:52:49 AM

Time Spent: 00:11:46

Email: todd.bartee@aquasana.com

IP Address: 75.127.200.170

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Todd Bartee

Q2: Water Supply Benefit

Supply DiversificationHow many independently managed water supply and demand-side management options are included in the portfolio?

,

Local ControlTo what extent does AW have control over the quantity and storage of water and operation of strategies (especially during drought periods) included in the portfolio?

,

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

Q3: Economic Impacts

External Funding PotentialDoes the portfolio have an opportunity for external funding such as Federal, State, local, and private sources?

,

Energy GenerationDoes the portfolio have an opportunity for energy generation/energy offset?

,

Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

Q4: Environmental Impacts

Natural Environment Water Quality Impact Does the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

,

Energy Use What is the net energy requirement of the portfolio?

,

Water Use Efficiency What is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

Q5: Social Impacts

Impacts to Local Economy To what extent the portfolio have a positive or negative impact on the local economy, including job creation?

,

Impacts to Water Based Recreation To what extent does the portfolio positively or negatively impact water-based activities (i.e. boating, kayaking, swimming, fishing, etc.)?

,

Multi-Beneficial Infrastructure/Program To what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

Q6: Implementation Impacts

Regulatory Approval How difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

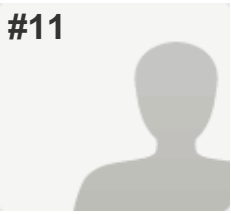
,

Scalability To what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

,

Technical Feasibility To what extent does the portfolio rely on emerging and/or unproven technologies?

#11



COMPLETE

Collector: Email Invitation 1 (Email)
Started: Monday, August 01, 2016 12:19:27 PM
Last Modified: Monday, August 01, 2016 3:08:06 PM
Time Spent: 02:48:39
Email: jennifermwalker@earthlink.net
IP Address: 99.18.227.96

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Jennifer Walker

Q2: Water Supply Benefit

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Local ControlTo what extent does AW have control over the quantity and storage of water and operation of strategies (especially during drought periods) included in the portfolio?

,

Supply DiversificationHow many independently managed water supply and demand-side management options are included in the portfolio?

,

Comments

Storage Capacity Comment: Maybe I do not understand this sub-category, but it seems to me that the amount of storage and is inherent in this category. This needs to be more tightly defined before I would choose it.

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

Energy GenerationDoes the portfolio have an opportunity for energy generation/energy offset?

,

External Funding PotentialDoes the portfolio have an opportunity for external funding such as Federal, State, local, and private sources?

,

Comments

Capital Life-cycle Unit Cost - cost pre unit is important and needs to be considered but needs to be balanced with other factors. Cost is very important but should not be the deciding factor (we have discussed this a couple times and I do not necessarily think that this is what is intended here). Operation Life-Cycle Unit Cost - shouldn't this be included with the first one.

Q4: Environmental Impacts

Habitat ImpactsTo what extent does the portfolio positively or negatively impact habitats throughout Austin (terrestrial or aquatic)?

,

Natural Environment Water Quality ImpactDoes the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

,

Comments

We are missing looking at downstream impacts. How and what source of water Austin uses can impact our downstream neighbors and the health of the Colorado River and Matagorda Bay. Austin is somewhat limited in controlling what happens downstream, but it should be a consideration. Water Use Efficiency - This is a water supply factor (it is demand side but directly impacts supply). Why is it included under environmental impacts? Is it because water conservation strategies tend to have less environmental impact than other strategies. I still argue that it should go elsewhere. We should keep it though. Energy Use - Look at energy use ANY compare it to other water supply recommendations

Q5: Social Impacts

Multi-Beneficial Infrastructure/ProgramTo what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

,

Impacts to Local EconomyTo what extent the portfolio have a positive or negative impact on the local economy, including job creation?

,

Impacts on Neighboring Water Supplies/SourcesTo what extent does the portfolio have positive or negative impacts to the water quantity of another municipal provider's existing water supply or other domestic water supplies?

,

Comments

It is unclear to me how some of these would be measured or assessed.

Q6: Implementation Impacts

Public AcceptanceWhat level of public support is anticipated for the portfolio?

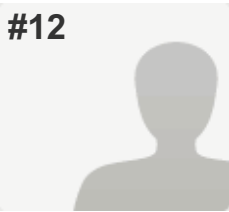
,

Legal/Contractual UncertaintiesTo what degree may legal or contractual issues hamper the portfolio in delivering the water supply?

,

ScalabilityTo what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

#12



COMPLETE

Collector: Email Invitation 1 (Email)
Started: Monday, August 01, 2016 1:27:02 PM
Last Modified: Monday, August 01, 2016 3:41:44 PM
Time Spent: 02:14:41
Email: sleurig@gmail.com
IP Address: 107.77.222.85

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Sharlene

Q2: Water Supply Benefit

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Storage CapacityHow much storage is in the portfolio for use by AW?

,

Local ControlTo what extent does AW have control over the quantity and storage of water and operation of strategies (especially during drought periods) included in the portfolio?

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

External Funding PotentialDoes the portfolio have an opportunity for external funding such as Federal, State, local, and private sources?

,

Comments

I don't think it makes sense to look separately at Capital and O&M life cycle costs--both need to be considered but if it means excluding another economic impact sub-objective to keep the two life-cycle cost metrics, they should be combined into a total life-cycle cost.

Q4: Environmental Impacts

Habitat Impacts To what extent does the portfolio positively or negatively impact habitats throughout Austin (terrestrial or aquatic)?

,

Natural Environment Water Quality Impact Does the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

,

Energy Use What is the net energy requirement of the portfolio?

,

Comments

If I had to choose 2 it would be water quality & energy use

Q5: Social Impacts

Multi-Beneficial Infrastructure/Program To what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

,

Impacts to Water Based Recreation To what extent does the portfolio positively or negatively impact water-based activities (i.e. boating, kayaking, swimming, fishing, etc.)?

,

Impacts on Neighboring Water Supplies/Sources To what extent does the portfolio have positive or negative impacts to the water quantity of another municipal provider's existing water supply or other domestic water supplies?

,

Comments

If I had to choose 2 it would be multi-beneficial infrastructure and impacts on neighboring supplies

Q6: Implementation Impacts

Regulatory Approval How difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

,

Legal/Contractual Uncertainties To what degree may legal or contractual issues hamper the portfolio in delivering the water supply?

,

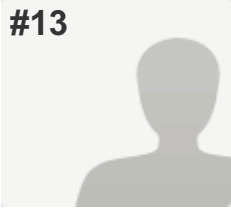
Scalability To what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

,

Comments

If I had to choose two it would be scalability and legal/contractual uncertainties.

#13



COMPLETE

Collector: Email Invitation 1 (Email)

Started: Tuesday, August 02, 2016 7:57:11 AM

Last Modified: Tuesday, August 02, 2016 8:00:24 AM

Time Spent: 00:03:12

Email: lauren@glenrose.com

IP Address: 162.192.104.106

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Lauren Ross

Q2: Water Supply Benefit

Water Reliability: Extreme Condition (Worse than Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout an extreme condition (which may include climate change-adjusted and synthetic hydrology that represents back to back droughts)?

,

Local ControlTo what extent does AW have control over the quantity and storage of water and operation of strategies (especially during drought periods) included in the portfolio?

,

Supply DiversificationHow many independently managed water supply and demand-side management options are included in the portfolio?

Q3: Economic Impacts

Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

Energy GenerationDoes the portfolio have an opportunity for energy generation/energy offset?

Water Forward - Objectives and Sub-Objectives

Q4: Environmental Impacts

Water Use EfficiencyWhat is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

,

Energy UseWhat is the net energy requirement of the portfolio?

,

Natural Environment Water Quality ImpactDoes the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

,

Comments All four are critical.

Q5: Social Impacts

Public Health & Safety ImpactsTo what extent does the portfolio increase the complexity of AW's requirements to meet all Federal, State, and local public health and safety regulations?

,

Impacts on Neighboring Water Supplies/SourcesTo what extent does the portfolio have positive or negative impacts to the water quantity of another municipal provider's existing water supply or other domestic water supplies?

,

Multi-Beneficial Infrastructure/ProgramTo what extent does the portfolio provide secondary benefits such as enhanced community livability/beautification, increased water ethic, ecosystem services, or others?

,

Comments

I could not live in Austin without kayaking, but note that I have not chosen Impacts to Water-Based Recreation.

Q6: Implementation Impacts

Public AcceptanceWhat level of public support is anticipated for the portfolio?

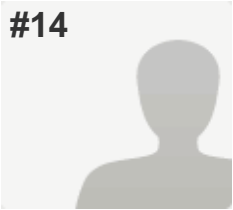
,

Legal/Contractual UncertaintiesTo what degree may legal or contractual issues hamper the portfolio in delivering the water supply?

,

ScalabilityTo what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

#14



COMPLETE

Collector: Email Invitation 1 (Email)

Started: Tuesday, August 02, 2016 9:05:31 AM

Last Modified: Tuesday, August 02, 2016 9:33:09 AM

Time Spent: 00:27:38

Email: Kathleen.Garrett@austinenergy.com

IP Address: 162.89.23.10

PAGE 1: Task Force Member Survey

Q1: Name

Please provide your name

Kathleen Garrett

Q2: Water Supply Benefit

Water Reliability: Baseline (Period of Record, Including recent Critical Period)How does the portfolio perform in terms of reliability (how often is there shortage), vulnerability (how large is the shortage), resilience (how fast is the recovery from shortages) throughout baseline hydrologic period record (including the recent critical period of 2008-2016)?

,

Supply DiversificationHow many independently managed water supply and demand-side management options are included in the portfolio?

,

Operational ImpactTo what extent does the portfolio increase the operational complexity of Austin's water infrastructure, conveyance, treatment, and distribution?

,

Comments

I think operational impact and local control could be combined. Both are important.

Q3: Economic Impacts

Capital Life-cycle Unit CostWhat is the total capital (construction) cost of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

Operation Life-cycle Unit CostWhat is the total operations and maintenance costs of all projects/programs in the portfolio over the lifecycle, divided by the sum of all water yield produced by the portfolio?

,

External Funding PotentialDoes the portfolio have an opportunity for external funding such as Federal, State, local, and private sources?

,

Comments

Energy generation/energy offset can be built into any project scope with the type of equipment used and should be a given for the COA through their policies. I think the economic impact when deciding on a project will be your return on investment which is evaluating your capital cost and O&M. External funding may help lower those cost for the rate payer and is very important.

Q4: Environmental Impacts

Habitat ImpactsTo what extent does the portfolio positively or negatively impact habitats throughout Austin (terrestrial or aquatic)?

,

Natural Environment Water Quality ImpactDoes the portfolio positively or negatively impact water quality in the natural environment, including local streams and creeks?

,

Water Use EfficiencyWhat is the water use reduction from strategies (i.e. water conservation, reuse and rainwater capture, etc.) for the portfolio?

,

Comments

I do not think energy use would fall under environmental impact. The city is on green choice. In your scope and design you can address through energy efficient equipment your cost for net energy.

Q5: Social Impacts

Impacts to Local Economy To what extent the portfolio have a positive or negative impact on the local economy, including job creation?

,

Impacts on Neighboring Water Supplies/Sources To what extent does the portfolio have positive or negative impacts to the water quantity of another municipal provider's existing water supply or other domestic water supplies?

,

Public Health & Safety Impacts To what extent does the portfolio increase the complexity of AW's requirements to meet all Federal, State, and local public health and safety regulations?

,

Comments

I like the multi-beneficial infrastructure idea, but the other three are more important when evaluating a strategy or project.

Q6: Implementation Impacts

Regulatory Approval How difficult will the portfolio be in obtaining regulatory approval, i.e. environmental and water rights permitting?

,

Public Acceptance What level of public support is anticipated for the portfolio?

,

Scalability To what extent can the portfolio be incrementally sized over time in terms of supply capacity and demand management?

,

Comments

I think technical feasibility is very important and maybe it can be combined with scalability.
