

SAFER: IDENTIFYING AT-RISK PUBLIC WATER SYSTEMS – RISK ASSESSMENT 2.0 THRESHOLDS, SCORES, & WEIGHTS (Part 4)

December 14, 2020
9:00 am

Remote participation only





Welcome and Meeting Logistics

Vanessa Soto



Water Board's Mission Statement

Preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations.

What is the SAFER Drinking Water Program?

SAFER = Safe and Affordable Funding for Equity and Resilience



Division of
Drinking Water

systems



Division of
Financial Assistance

funding



Office of
Public Participation

communities



SAFER
Advisory Group

local expertise

Presentation Outline

- Overview of Needs Assessment
- Risk Assessment 2.0 Development
- Proposed Expanded HR2W Criteria
- Proposed Risk Indicator **Thresholds** and **Scores**
- Proposed Risk Indicator and Category **Weights**
- Risk Assessment Options and Recommendations
- Next Steps and Timeline



WELCOME & INTRODUCTION

Kristyn Abhold
Needs Analysis Unit
Division of Drinking

Ways to Participate-

- 1. Watch ONLY:** Visit video.calepa.ca.gov
- 2. Email:** Submit a comment or ask a question that will be read aloud, send an email to: safer@waterboards.ca.gov
- 3. Q&A:** Submit a question using the Q&A feature at the bottom of your Zoom Screen. You can UPVOTE any question you would like answered.
- 4. Raise Hand:** Attendees will be given the opportunity to provide verbal comment or ask questions, if you're interested in this option, please raise your virtual hand when the time is right.

- Please wait for your name to be called.
- Public comments are 3 minutes each.

Audience Poll Question 1

Have you participated in any of the last three webinar workshops on the Risk Assessment for Public Water Systems?

- Yes
- No

View recordings and materials here: <https://www.waterboards.ca.gov/safer/calendar.html>

Provide a written response to poll questions at the link below by **January 6th**:

- <https://bit.ly/3oFVCpx>

Audience Poll Question 2

Have you read the White Paper: *“Recommendations for Risk Assessment 2.0 Thresholds, Scores, & Weights for Public Water Systems”*?

- Yes, read the whole thing
- Yes, I skimmed it
- No, but I plan to
- No, I don't intend to read it

Access White Paper here:

https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf

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SB 200 and the Needs Assessment

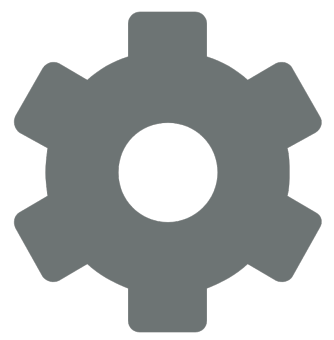
Senate Bill 200 created the **Safe and Affordable Drinking Water Fund**.

- Up to \$130 million per year through 2030
- The annual Fund Expenditure Plan prioritizes projects for funding, documents past and planned expenditures, and is “based on data and analysis drawn from the drinking water **Needs Assessment**” (Health and Safety Code §116769).



Needs Assessment for Public Water Systems

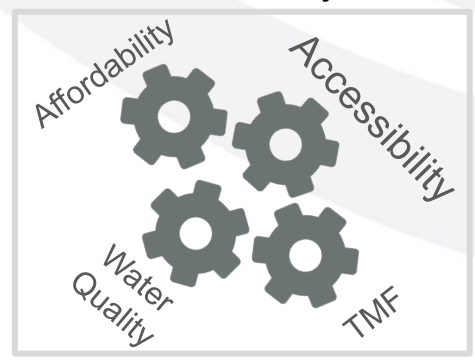
AFFORDABILITY ASSESSMENT



DAC Systems

RISK ASSESSMENT

Public Water System



Systems with 3,300 Conn. or Less & K-12 Schools

COST ASSESSMENT

At-Risk Systems & DWs



+

HR2W Systems

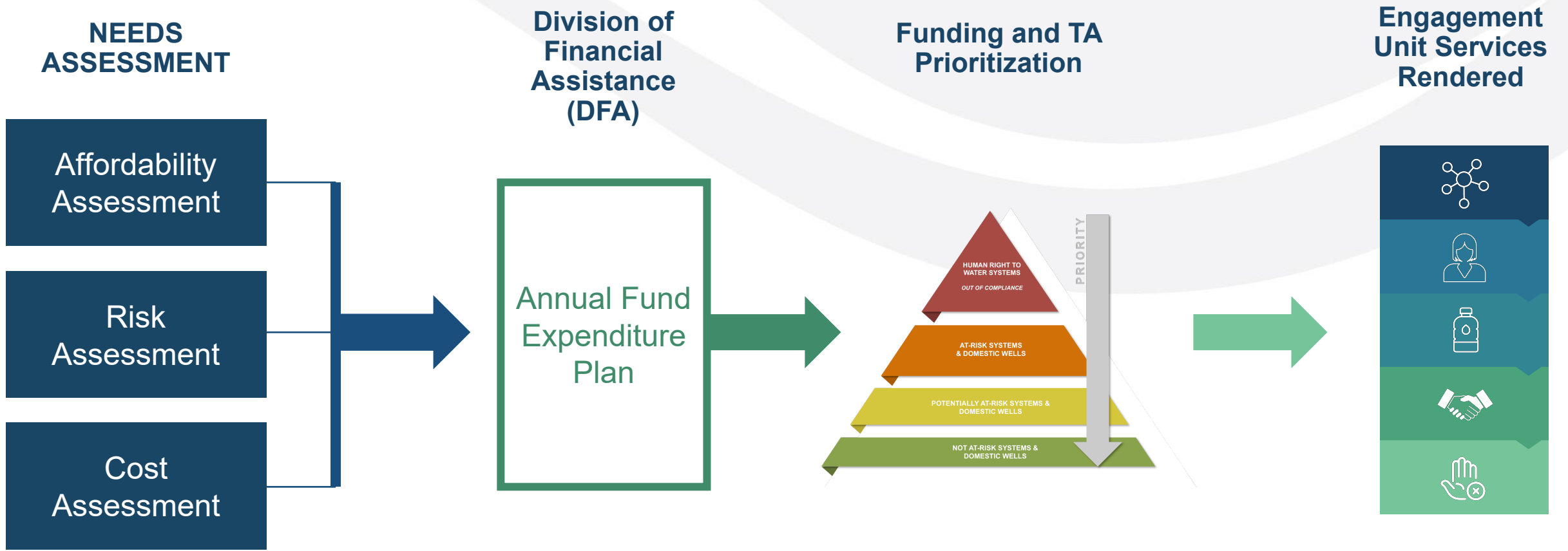


HR2W & At-Risk Systems and Domestic Wells

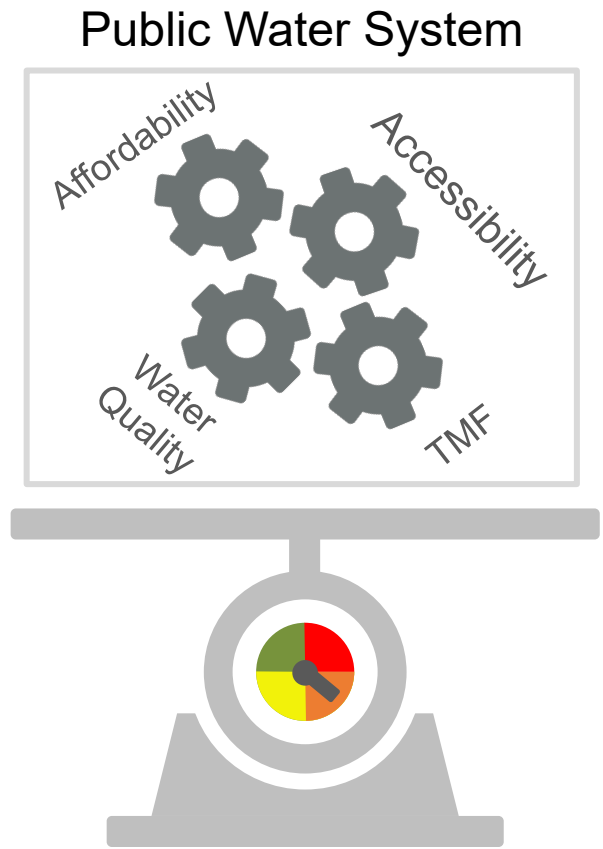
SAFER Program and the Risk Assessment



Needs Assessment Uses



Risk Assessment for Public Water Systems (1/2)



RISK ASSESSMENT METHODOLOGY



RISK INDICATORS

Quantifiable measurements of key data used to assess a water system's risk of becoming non-compliant with water quality standards.



THRESHOLDS

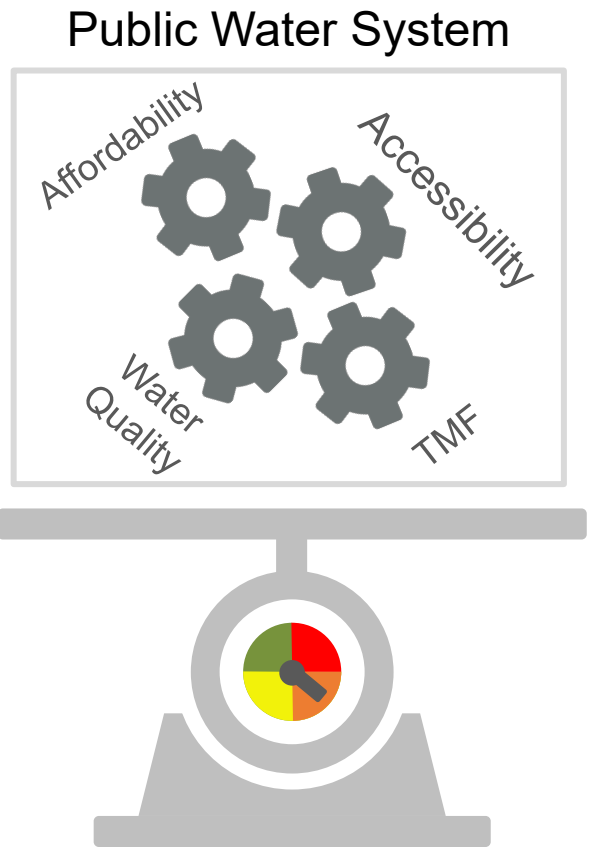
Values associated with a risk indicator that designates when a water system is more at-risk of becoming non-compliant with water quality standards.



WEIGHTS / SCORES

Application of weight to each risk indicator – as some may be deemed more critical than others in contributing to overall risk.

Risk Assessment for Public Water Systems (2/2)



RISK ASSESSMENT METHODOLOGY



RISK INDICATORS

Quantifiable measurements of key data used to assess a water system's risk of becoming non-compliant with water quality standards.



THRESHOLDS

Values associated with a risk indicator that designates when a water system is more at-risk of becoming non-compliant with water quality standards.

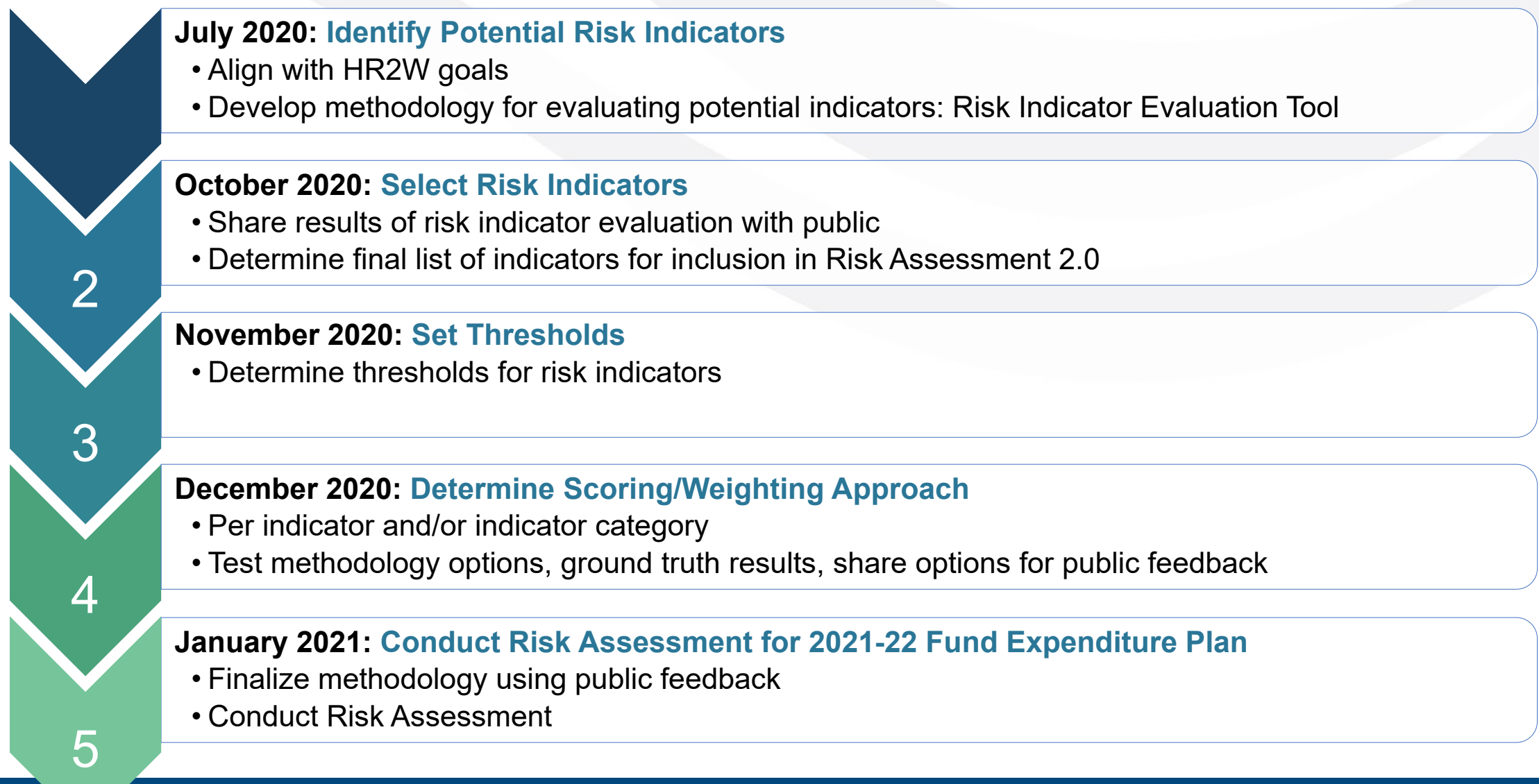


WEIGHTS / SCORES

Application of weight to each risk indicator – as some may be deemed more critical than others in contributing to overall risk.

TODAY'S WEBINAR

Phases of Risk Assessment Development (1/2)



Re-Cap Risk Assessment 1.0 Indicators

Risk Assessment 1.0 Indicators (water systems < 3,300 connections)

- Explored in April 17, 2020 Webinar: <https://www.waterboards.ca.gov/safer/calendar.html>
- Detailed in White Paper: https://www.waterboards.ca.gov/drinking_water/programs/safer_drinking_water/docs/draft_white_paper_indicators_for_risk_assessment_07_15_2020_final.pdf

- Water Outages
- Waterborne Illness: Current and Historical
- Lead and Copper
- Extensive Treatment Required
- Treatment Technique Violations
- Single Groundwater Source
- Absence of Customer-Level Meters

- Monitoring and Reporting Violations
- Bacteriological Violations or E. coli
- Operator Certification Violations
- Disadvantaged Community Status
- Location In a High Priority Groundwater Basin
- Active Standing with California Secretary of State Status Requirements

Steps 1 & 2: Identify and Select 2.0 Risk Indicators

Solicited public and stakeholder recommendations through **3 webinar workshops**:

- April 17, 2020
- July 22, 2020
- October 13, 2020

Webinar Recordings and Detailed Draft White Papers:

<https://www.waterboards.ca.gov/safer/calendar.html>

WATER QUALITY

ACCESSIBILITY

AFFORDABILITY

TECHNICAL,
MANAGERIAL, &
FINANCIAL CAPACITY

2.0 Risk Indicator Selection Process



- ① Assess 129 potential risk indicators for Applicability and Data Fitness using Evaluation Tool.
- ② Use evaluation results to refine list of potential risk indicators.
- ③ Identify and remove moderately duplicative potential risk indicators to further refine list.
- ④ Make recommendation and solicit public feedback to determine final list of indicators for Risk Assessment 2.0.

Recommended Water Quality Risk Indicators (White Paper – Pg. 19)

WATER QUALITY

ACCESSIBILITY

AFFORDABILITY

TMF CAPACITY

Risk Indicator

Utilized By Others?

E. Coli Presence

Risk Assessment 1.0

Increasing Presence of Water Quality Trends Toward MCL
(2022-23 Needs Assessment)

Treatment Technique Violations

Risk Assessment 1.0

Past Presence on the HR2W List

Maximum Duration of High Potential Exposure (HPE)

OEHHA HR2W Tool

Percentage of Sources Exceeding an MCL

Accessibility Risk Indicators

WATER QUALITY

ACCESSIBILITY

AFFORDABILITY

TMF CAPACITY

Risk Indicator

Utilized By Others?

Number of Sources

OEHHA HR2W Tool; DWR Water Shortage Risk Tool

Absence of Interties

OEHHA HR2W Tool; DWR Water Shortage Risk Tool

Water Source Types

OEHHA HR2W Tool

DWR – Drought & Water Shortage Risk Assessment Results

DWR

Critically Overdrafted Groundwater Basin

DWR Water Shortage Risk Tool

Affordability Risk Indicators

WATER QUALITY	ACCESSIBILITY	AFFORDABILITY	TMF CAPACITY
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Risk Indicator	Utilized By Others?
Percent of Median Household Income (2021-22 Needs Assessment Only)	OEHHA HR2W Tool; SWRCB-FEP 2020/21; UNC Financial Dashboard
Household Burden Indicator for Drinking Water (2022-23 Needs Assessment)	UNC Financial Dashboard
Poverty Prevalence Indicator (2022-23 Needs Assessment)	
Housing Burden (2022-23 Needs Assessment)	
Extreme Water Bill (2021-22 and 2022-23 Needs Assessment)	SWRCB AB-401 Report
% Shut-Offs (2021-22 and 2022-23 Needs Assessment)	

TMF Capacity Risk Indicators

WATER QUALITY	ACCESSIBILITY	AFFORDABILITY	TMF CAPACITY
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Risk Indicator	Utilized By Others?
Number of Service Connections	
Operator Certification Violations	Risk Assessment 1.0
Monitoring and Reporting Violations	Risk Assessment 1.0; OEHHA HR2W Tool
Significant Deficiencies	
Extensive Treatment Installed	

Progress Since the October 13th Public Webinar



1

Incorporated public and internal-DDW recommendations to finalize list of **22 risk indicators** for Risk Assessment 2.0.

2

Developed proposed **expanded criteria** for the Human Right to Water (HR2W) List.

3

Identified potential **thresholds, scoring, and weighting** approaches for individual risk indicators.

4

Proposed aggregated Risk Assessment 2.0 options and recommended “At-Risk” and “Potentially At-Risk” thresholds in a published **White Paper** for public feedback.

Violation-Type Risk Indicators

- A number of the potential and recommended risk indicators are associated with **non-MCL violations**. The recommended indicators include:
 - **Presence of E. Coli (includes E. coli violations)**
 - **Treatment Technique Violations**
 - **Operator Certification Violations**
 - **Monitoring and Reporting Violations**
- Further consideration was given to define what it means for a water system to **“consistently fail”** or be **“at-risk.”**

HR2W Considerations

- CA Health and Safety Code Section 116275(c) states **that “primary drinking water standards”** mean:
 1. **Maximum levels of contaminants** that, in the judgment of the state board, may have an adverse effect on the health of persons.
 2. Specific **treatment techniques** adopted by the state board in lieu of maximum contaminant levels pursuant to subdivision (j) of Section 116365.
 3. The **monitoring and reporting** requirements as specified in regulations adopted by the state board that pertain to maximum contaminant levels.
- The State Water Board used this definition to consider how to most appropriately expand the criteria for systems that are added to the HR2W list to ensure all aspects of public health were incorporated.

Expanded Criteria for the Human Right to Water List (HR2W)

Criteria	Before 3.2021	After 3.2021
Primary MCL Violation with an open Enforcement Action	Yes	Yes
Secondary MCL Violation with an open Enforcement Action	Yes	Yes
E. Coli Violation with an open Enforcement Action	No	Yes
Treatment Technique Violations (in lieu of an MCL): <ul style="list-style-type: none"> • One or more Treatment Technique violations (in lieu of an MCL), related to a primary contaminant, with an open enforcement action; and/or • Three or more Treatment Technique violations (in lieu of an MCL), related to a primary contaminant, within the last three years. 	Partially	Expanded
Monitoring and Reporting Violations (related to an MCL and TTs): <ul style="list-style-type: none"> • 3 Monitoring and Reporting violations (related to an MCL) within the last three years where at least one violation has been open for 15 months or greater. 	No	Yes

*Approximately 40 water systems would be added to the HR2W list with the expanded criteria

Audience Poll Question 3

Does the expanded criteria for the HR2W list better align with the primary drinking water standard definitions for systems that are out of compliance or consistently failing?

- Yes, I like this expanded criteria
- Maybe, I need more time to consider the expanded criteria
- No, I disagree with expanding the criteria for the HR2W list

Access White Paper here:

https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf

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- <https://bit.ly/3oFVCpx>

Discussion Topic: Expanded HR2W Criteria

Do you have any immediate feedback on the proposed expanded HR2W criteria or the definition of what is “consistently failing”?

Ways to Participate-

1. Watch ONLY: Visit video.calepa.ca.gov

2. Email: Submit a comment or ask a question that will be read aloud, send an email to:

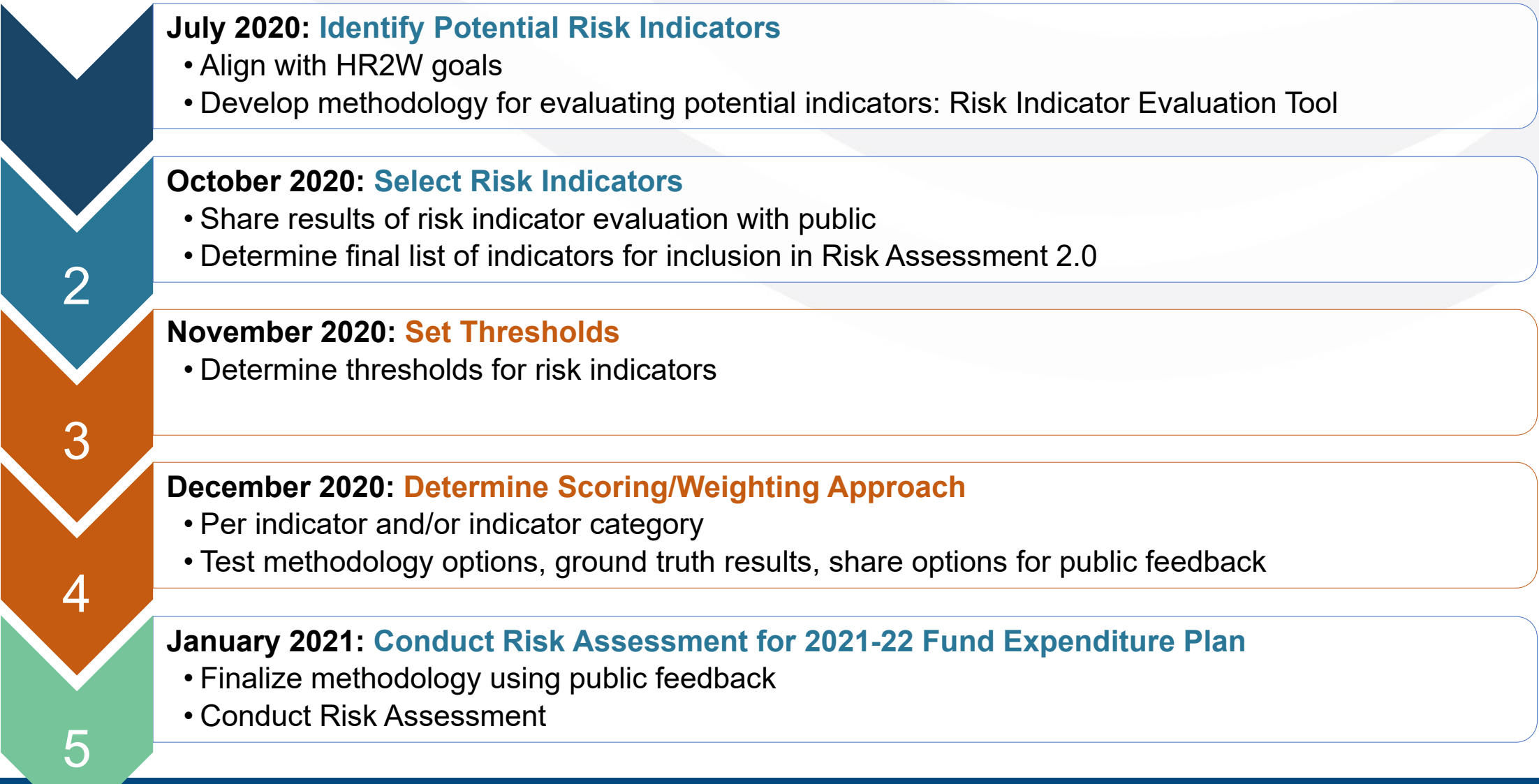
safer@waterboards.ca.gov

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- Please wait for your name to be called.
- Public comments are 3 minutes each.

Phases of Risk Assessment Development (1/2)



Determining Risk Indicator Thresholds

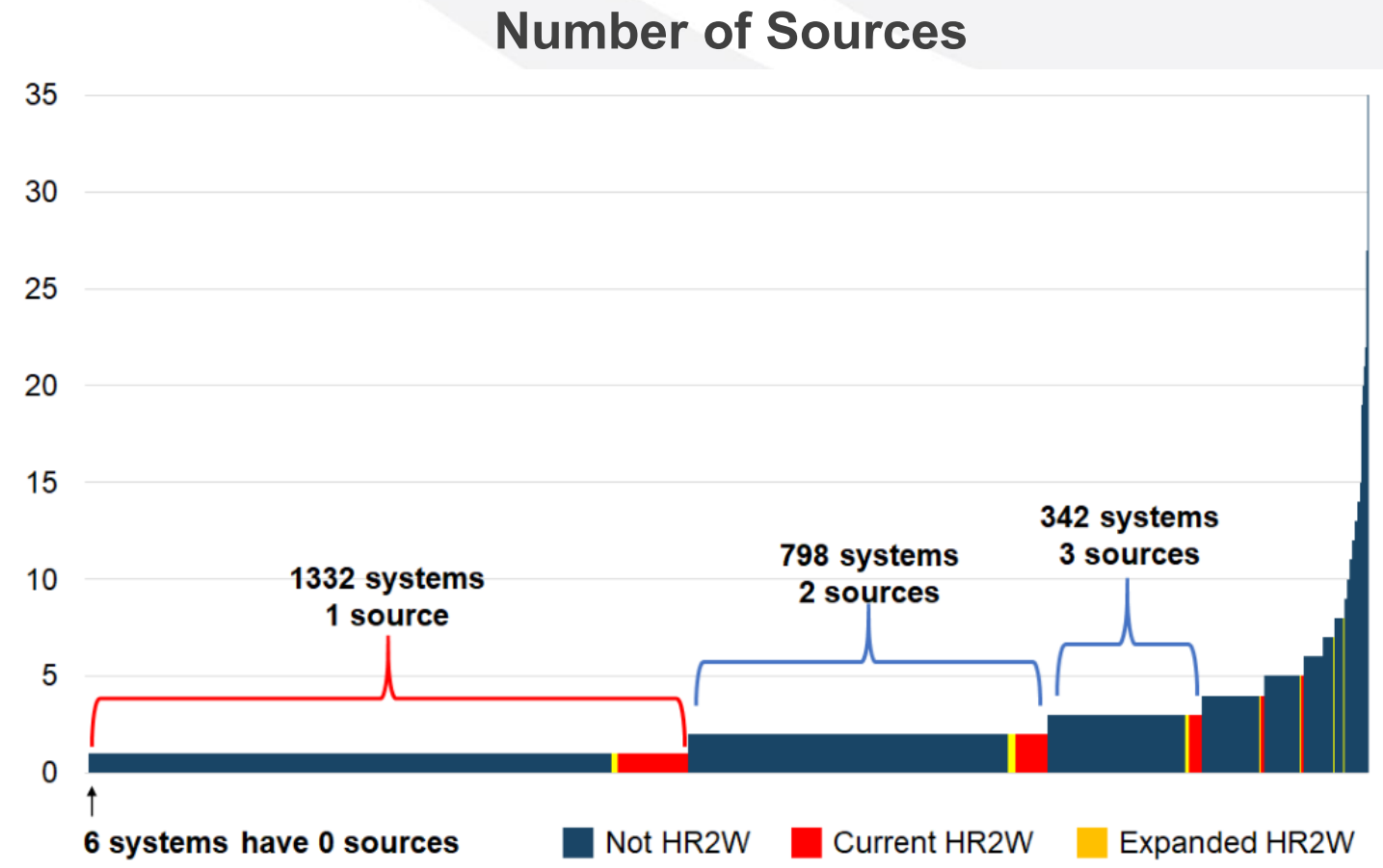
DISTINGUISH BETWEEN THRESHOLD TYPES

Threshold Type	Number of Risk Indicators*
Derived from Legislative or regulatory definitions	7
Supported by empirical evidence	9
Utilized by other California agencies, other state government or the U.S. EPA	14
Recognized by sector experience	4
No Past Precedent	4

*Many of the 18 risk indicators have more than one threshold type

Normalizing Individual Risk Indicator Thresholds with Scores

The State Water Board and UCLA analyzed the distribution of each risk indicator and looks for natural breaks and clusters in order to determine appropriate threshold(s).



Normalizing Individual Risk Indicator Thresholds with Scores

- Many risk indicators are measured in different units and scales.
- To enable the evaluation and comparison of risk indicators, a standardized **score range between 0 and 1** was applied to each set of proposed thresholds
- Example:

Risk Indicator	Proposed Threshold & Score
Maximum Duration of High Potential Exposure (HPE)	Threshold 0 = 0 years (0) Threshold 1 = 1 year (.25) Threshold 2 = 2 years (.5) Threshold 3 = 3 or more years (1)

Risk Indicator Weight Options

- The application of weights to risk indicators allows the State Water Board to indicate which risk indicators are comparatively more **critical**.
- **Weights between 1 and 3** are proposed for each risk indicator.

Same Weight



Different Weights



Individual risk indicators can have the same weight or different weights based on comparative criticality.

Water Quality Risk Indicator Recommended Thresholds & Scores (1/2)

WATER QUALITY	ACCESSIBILITY	AFFORDABILITY	TMF CAPACITY
Risk Indicator	Proposed Thresholds & Scores		Proposed Weight
E. Coli Presence	Threshold 0 = No (0) Threshold 1 = Yes (1)		3
Increasing Presence of Water Quality Trends Toward MCL	<i>To be determined through a stakeholder driven process in 2021.</i>		N/A
Treatment Technique Violations	Threshold 0 = 0 (0) Threshold 1 = 1 or more (1)		1

Water Quality Risk Indicator Recommended Thresholds & Scores (2/2)

WATER QUALITY	ACCESSIBILITY	AFFORDABILITY	TMF CAPACITY
Risk Indicator	Proposed Thresholds & Scores		Proposed Weight
Past Presence on the HR2W List	Threshold 0 = 0 (0) Threshold 1 = 1 occurrence (.5) Threshold 2 = 2 or more occurrences (1)		2
Maximum Duration of High Potential Exposure (HPE)	Threshold 0 = 0 years (0) Threshold 1 = 1 year (.25) Threshold 2 = 2 years (.5) Threshold 3 = 3 or more years (1)		3
Percentage of Sources Exceeding an MCL	Threshold 0 = less than 49.9% (0) Threshold 1 = greater than 49.9% (1)		3

Accessibility Risk Indicator Recommended Thresholds & Scores (1/2)

WATER QUALITY	ACCESSIBILITY	AFFORDABILITY	TMF CAPACITY
Risk Indicator	Proposed Thresholds & Scores		Proposed Weight
Number of Sources	Threshold X = 0 (automatically At-Risk) Threshold 0 = 2 or more (0) Threshold 1 = 1 (1)		3
Absence of Interties	Threshold 0 = 1 or more (0) Threshold 1 = 0 (1)		1
Water Source Types	Threshold 0 = 2 or more (0) Threshold 1 = 1 that is purchased (.5) Threshold 2 = 1 that is groundwater or surface water (1)		1

Accessibility Risk Indicator Recommended Thresholds & Scores (2/2)

WATER QUALITY	ACCESSIBILITY	AFFORDABILITY	TMF CAPACITY
Risk Indicator	Proposed Thresholds & Scores		Proposed Weight
DWR – Drought & Water Shortage Risk Assessment Results	Threshold 0 = Below top 25% (0) Threshold 1 = Top 25% (.25) Threshold 2 = Top 10% (1)		2
Critically Overdrafted Groundwater Basin	Threshold 0 = Less than 75% (0) Threshold 1 = 75% or greater (1)		2

Affordability Risk Indicator Recommended Thresholds & Scores (1/2)

WATER QUALITY		ACCESSIBILITY	AFFORDABILITY	TMF CAPACITY
Risk Indicator	Proposed Thresholds & Scores			Proposed Weight
Percent of Median Household Income (2021-22 Needs Assessment Only)	Threshold 0 = Less than 1.5% (0) Threshold 1 = 1.5% or greater (.75) Threshold 2 = 2.5% or greater (1)			3
Extreme Water Bill (2021-22 and 2022-23 Needs Assessment)	Threshold 0 = Below 150% of the statewide average (0) Threshold 1 = greater than 150% of the statewide average (.5) Threshold 2 = greater than 200% of the statewide average (1)			1
% Shut-Offs (2021-22 and 2022-23 Needs Assessment)	Threshold 0 = less than 10% over the last calendar year (0) Threshold 1 = 10% or greater over the last calendar year (1)			2

Affordability Risk Indicator Recommended Thresholds & Scores (2/2)

WATER QUALITY	ACCESSIBILITY	AFFORDABILITY	TMF CAPACITY
Risk Indicator	Proposed Thresholds & Scores		Proposed Weight
Household Burden Indicator for Drinking Water (2022-23 Needs Assessment)	<i>To be determined through a stakeholder driven process in 2021.</i>		N/A
Poverty Prevalence Indicator (2022-23 Needs Assessment)	<i>To be determined through a stakeholder driven process in 2021.</i>		N/A
Housing Burden (2022-23 Needs Assessment)	<i>To be determined through a stakeholder driven process in 2021.</i>		N/A

TMF Capacity Risk Indicator Recommended Thresholds & Scores

WATER QUALITY		ACCESSIBILITY		AFFORDABILITY		TMF CAPACITY	
Risk Indicator		Proposed Thresholds & Scores				Proposed Weight	
Number of Service Connections		Threshold 0 = greater than 500 (0) Threshold 1 = 500 or less (1)				1	
Operator Certification Violations		Threshold 0 = 0 (0) Threshold 1 = 1 or more over the last 3 years (1)				3	
Monitoring and Reporting Violations		Threshold 0 = 1 or less over the last 3 years (0) Threshold 1 = 2 or more over the last 3 years (1)				2	
Significant Deficiencies		Threshold 0 = 0 (0) Threshold 1 = 1 or more over the last 3 years (1)				3	
Extensive Treatment Installed		Threshold 0 = No (0) Threshold 1 = Yes (1)				2	

Audience Poll Question 4

Do these individual risk indicator thresholds and scoring recommendations align with your expectations?

- Yes, these thresholds and scores align with my expectations
- Maybe, I haven't had a chance to review all the threshold and score recommendations
- Maybe, there are some thresholds and/or scores I don't agree with
- No, I disagree with a majority of the recommend thresholds and scores

Access White Paper here:

https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf

Provide a written response to poll questions at the link below by **January 6th**:

- <https://bit.ly/3oFVCpx>

Category Weight Options

- The application of weights to risk indicator categories allows the State Water Board to indicate which sets of risk indicators are more comparatively critical.
- **Weights between 1 and 3** are proposed for each risk indicator category.

Same Weight

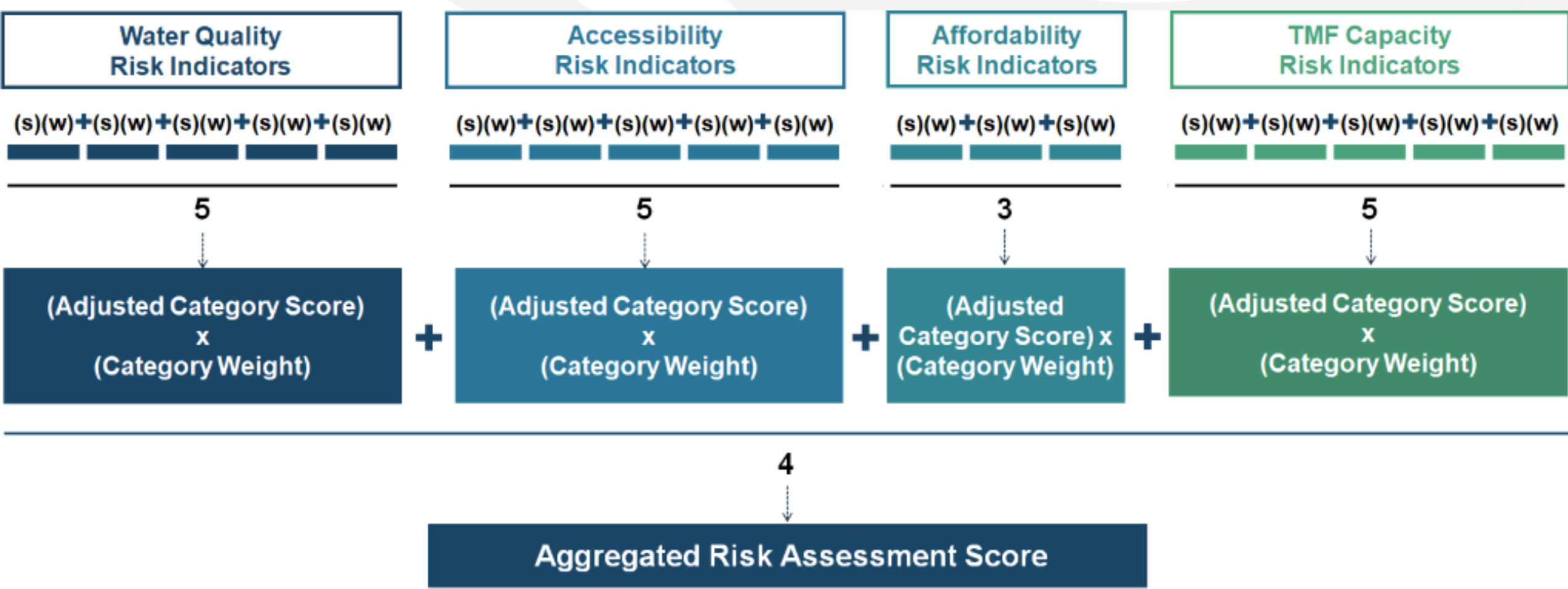


Different Weights



Risk Indicator categories can have the same weight or different weights

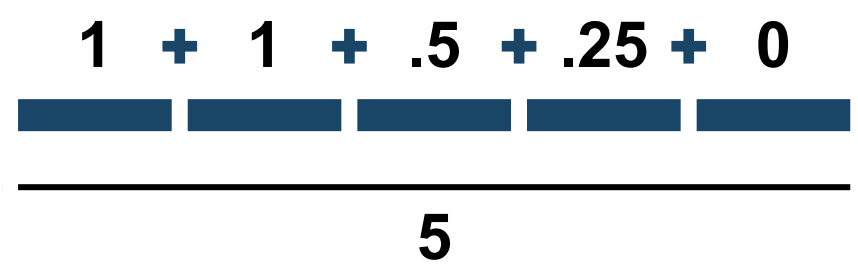
Aggregated Risk Assessment Calculation Methodology



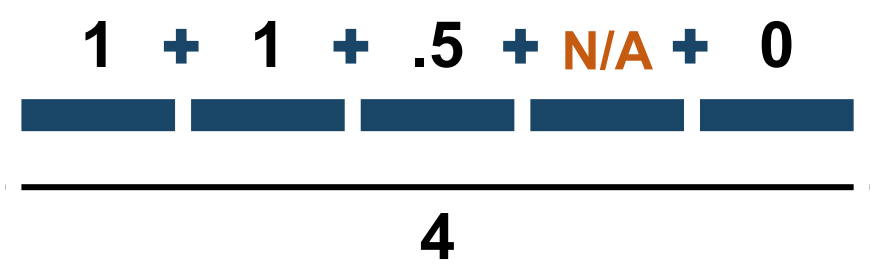
Adjusting for Missing Risk Indicator Data

- May have missing data for certain systems, either because:
 - a system failed to report necessary data or
 - the system may not have data to report.
- Risk Assessment 2.0 will omit any value for a missing risk indicator and redistribute the scores/weights to risk indicators within the same category which did have valid values.

**Risk Indicator Category
With No Missing Indicator**



**Risk Indicator Category
With Missing Indicator**



Adjusting for Missing Risk Indicator Data

Category with No Missing Risk Indicator Data

$$\frac{1.1 (s) \times 3 (w) + .3 (s) \times 3 (w) + 1 (s) \times 1 (w) + .8 (s) \times 2 (w)}{4}$$

Category with Missing Risk indicator Data

$$\frac{1.1 (s) \times 3 (w) + .3 (s) \times 3 (w) + N/A + .8 (s) \times 2 (w)}{3}$$

Audience Poll Question 5

Do you like this approach for adjusting to missing risk indicator data?

- Yes, I like this approach
- No, I don't like this approach
- I need more time to consider this question before I can provide feedback

Access White Paper here:

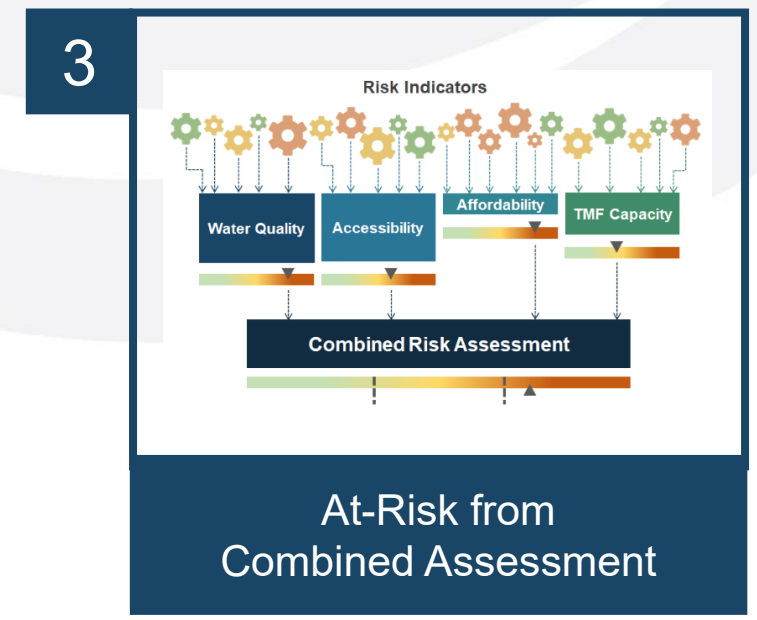
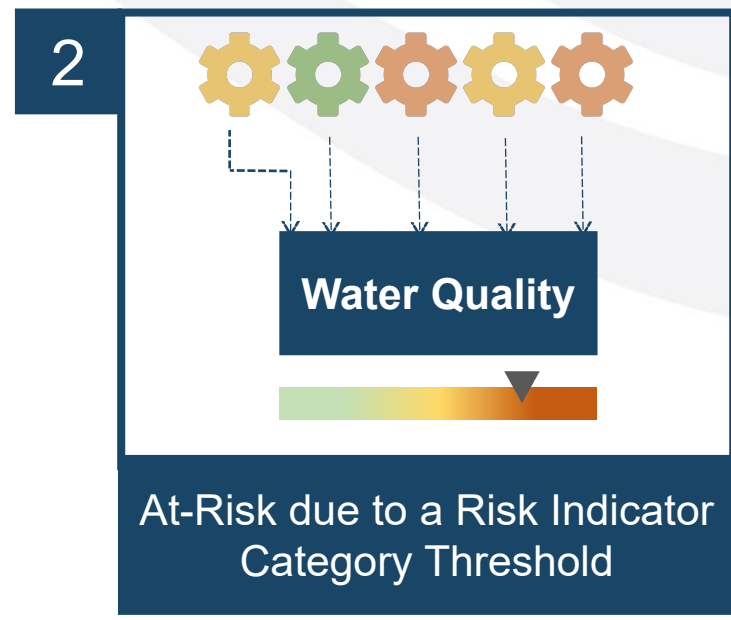
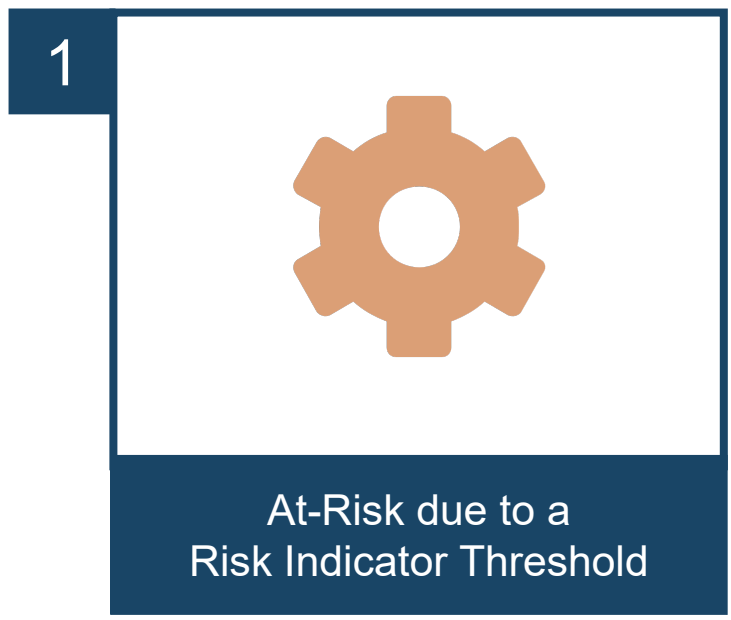
https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf

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“At-Risk” Determination Approaches (1/2)

When conducting an aggregated Risk Assessment, there are a number of approaches available for consideration for determining At-Risk systems:

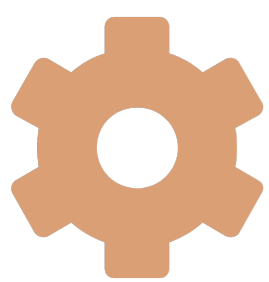


The assessment methodology could have a combined approach across all three approaches above.

“At-Risk” Determination Approaches (1/2)

Approaches 1 and 3 are recommended for Risk Assessment 2.0. Approach 2 was not incorporated due to the distribution of system performance across the risk indicator categories.

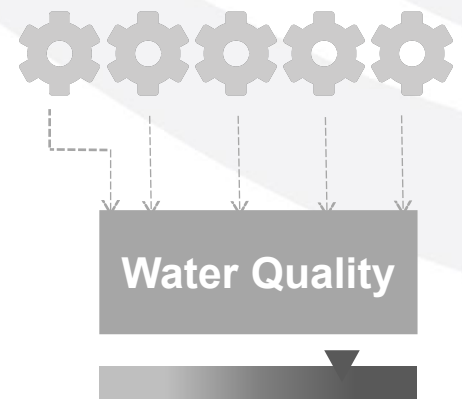
1



At-Risk due to a Risk Indicator Threshold

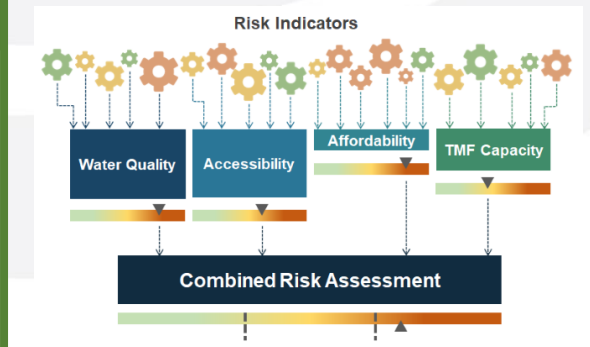
Only for ‘Number of Sources’
– where a system has 0 sources (hailed water)

2



At-Risk due to a Risk Indicator Category Threshold

3



At-Risk from Combined Assessment

3 Options were developed for consideration

Option 1: No Weights - Raw

Risk Indicators



Individual risk indicators with equal weights.



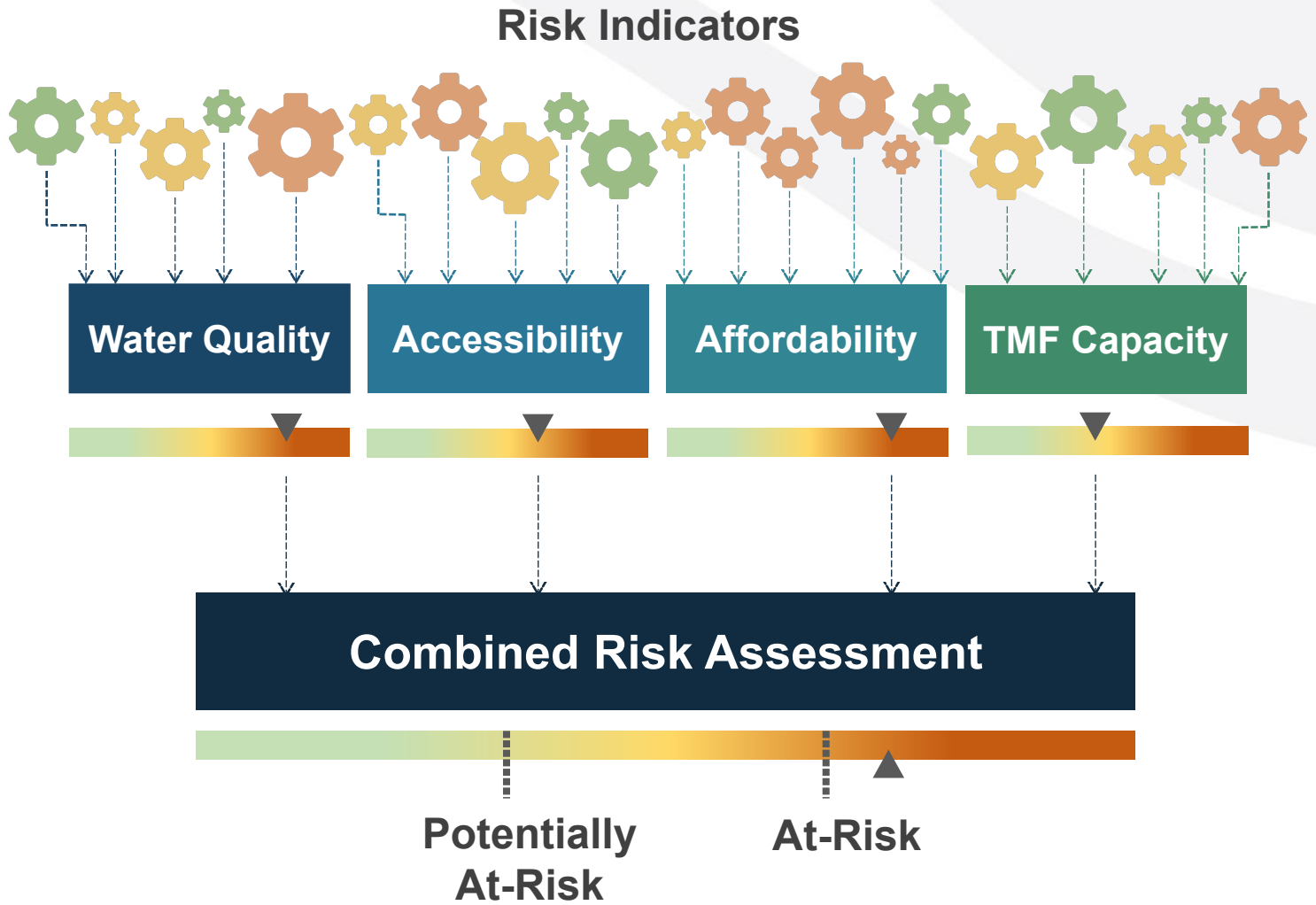
4 risk categories with equal weights. Can analyze risk within each category if desired.



Potentially At-Risk

At-Risk

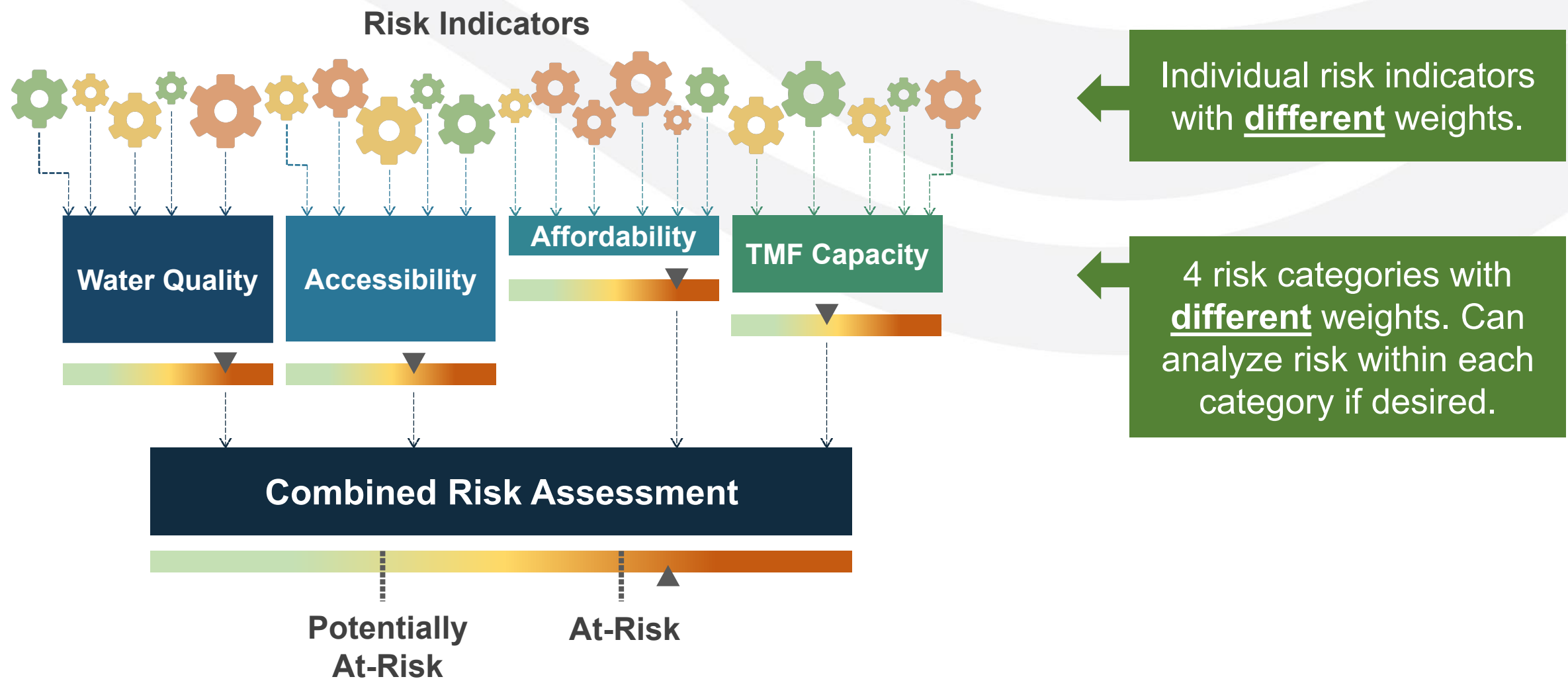
Option 2: Risk Indicator Weights Only



Individual risk indicators with different weights.

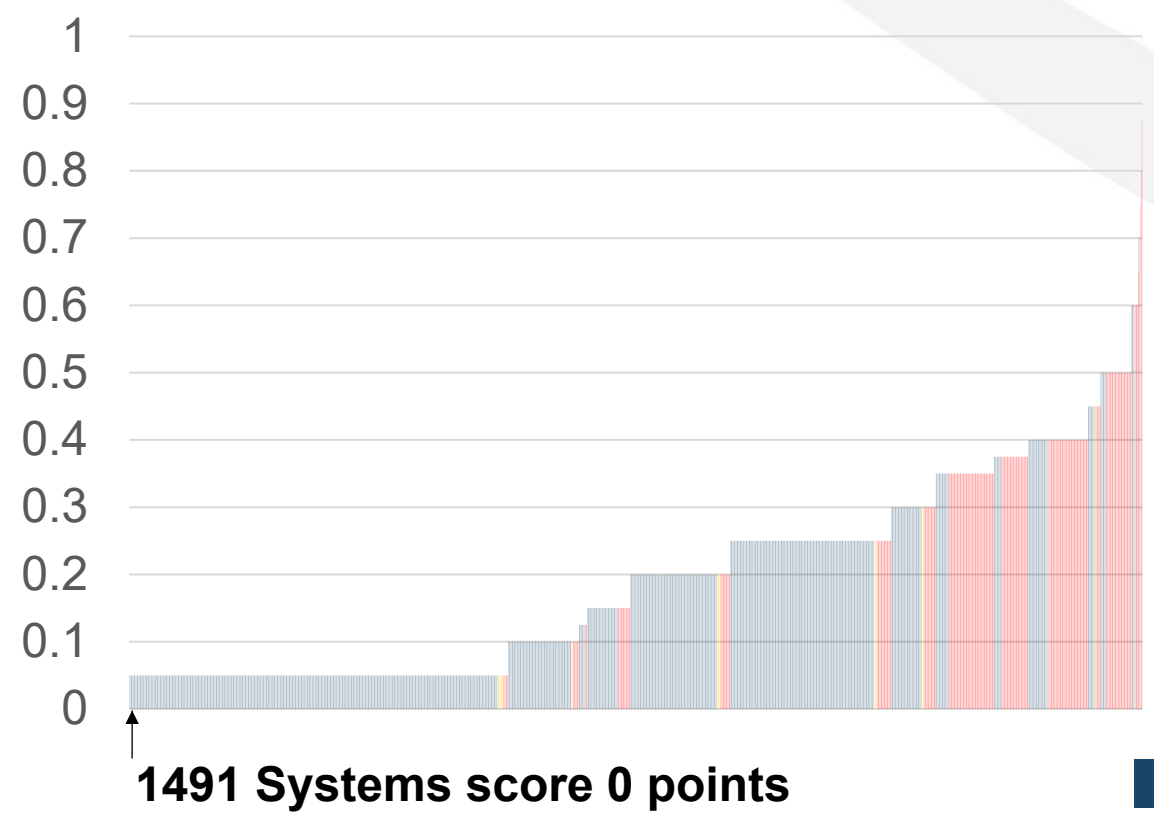
4 risk categories with equal weights. Can analyze risk within each category if desired.

Option 3: Risk Indicator & Category Weights

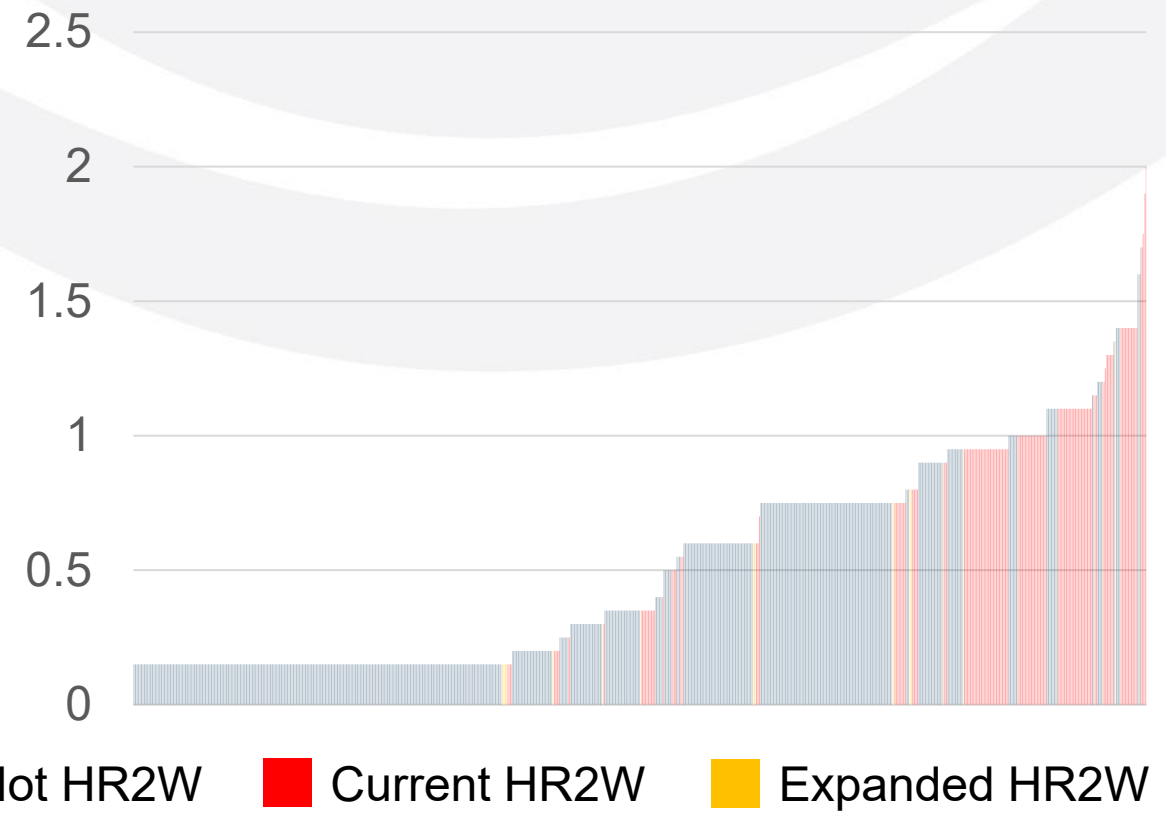


Water Quality Category Assessment Results (1,359 systems of 2,850 included)

Option 1: No Risk Indicator Weights

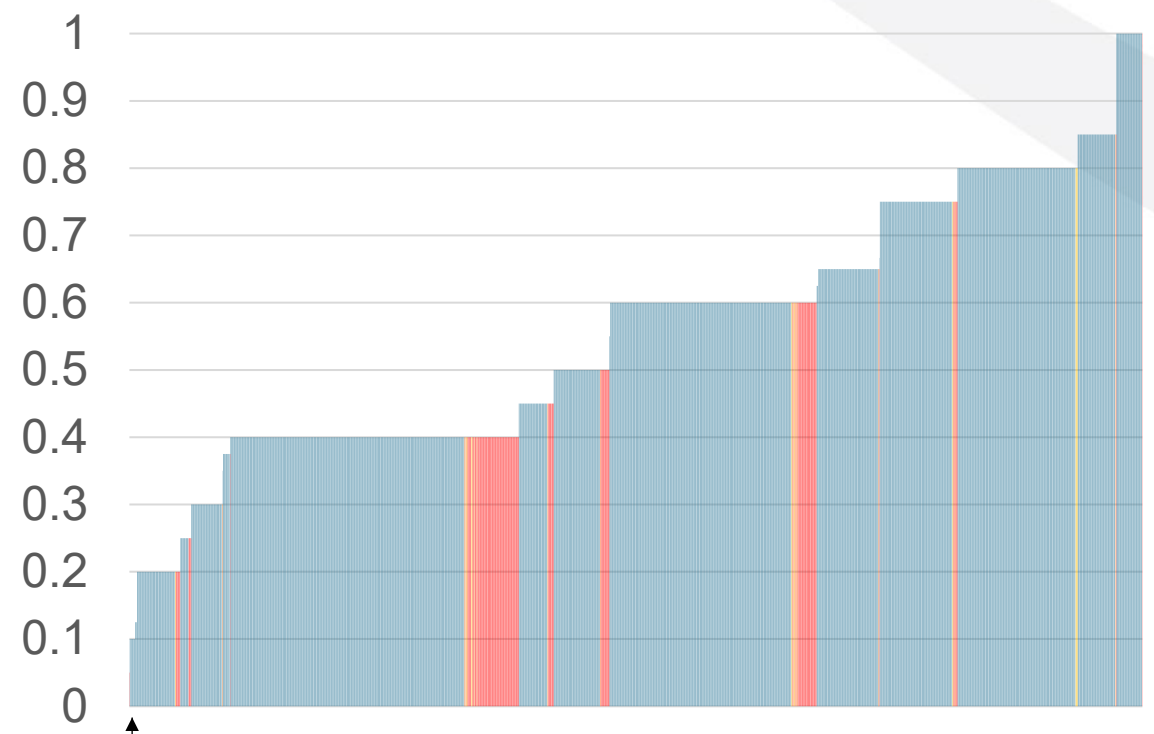


Option 2 & 3: Risk Indicator Weights Included



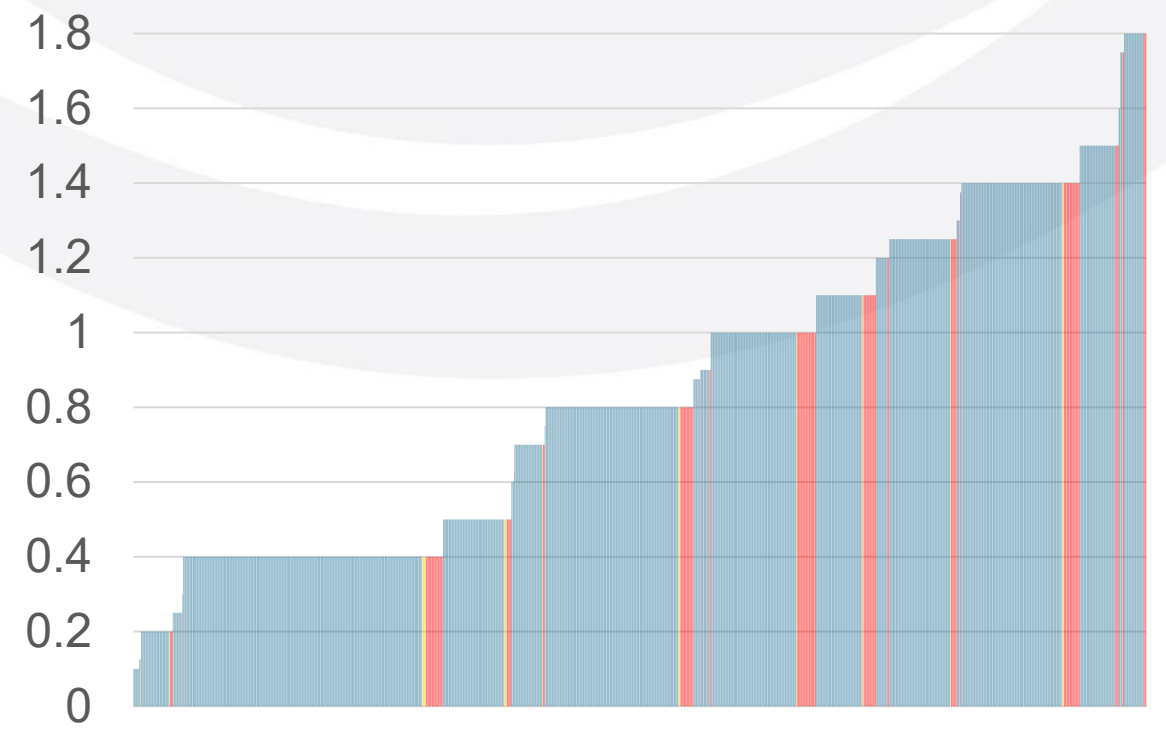
Accessibility Category Assessment Results (2,674 systems of 2,850 included)

Option 1: No Risk Indicator Weights



176 Systems score 0 points

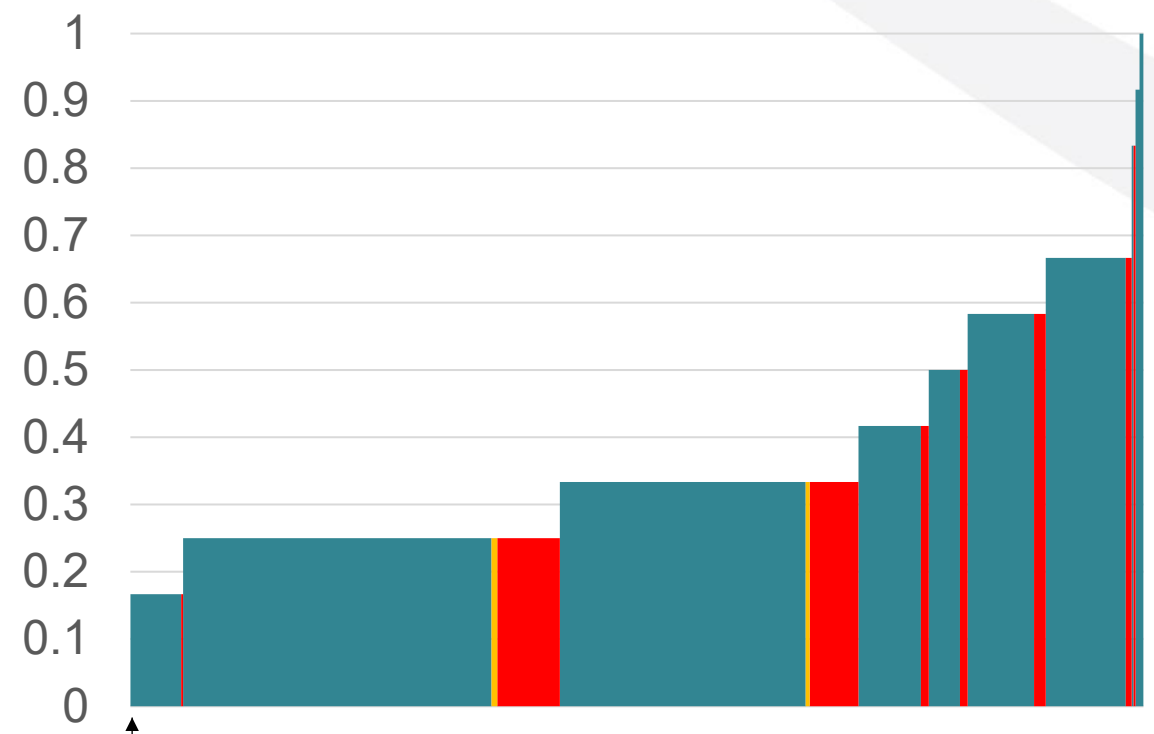
Option 2 & 3: Risk Indicator Weights Included



■ Not HR2W ■ Current HR2W ■ Expanded HR2W

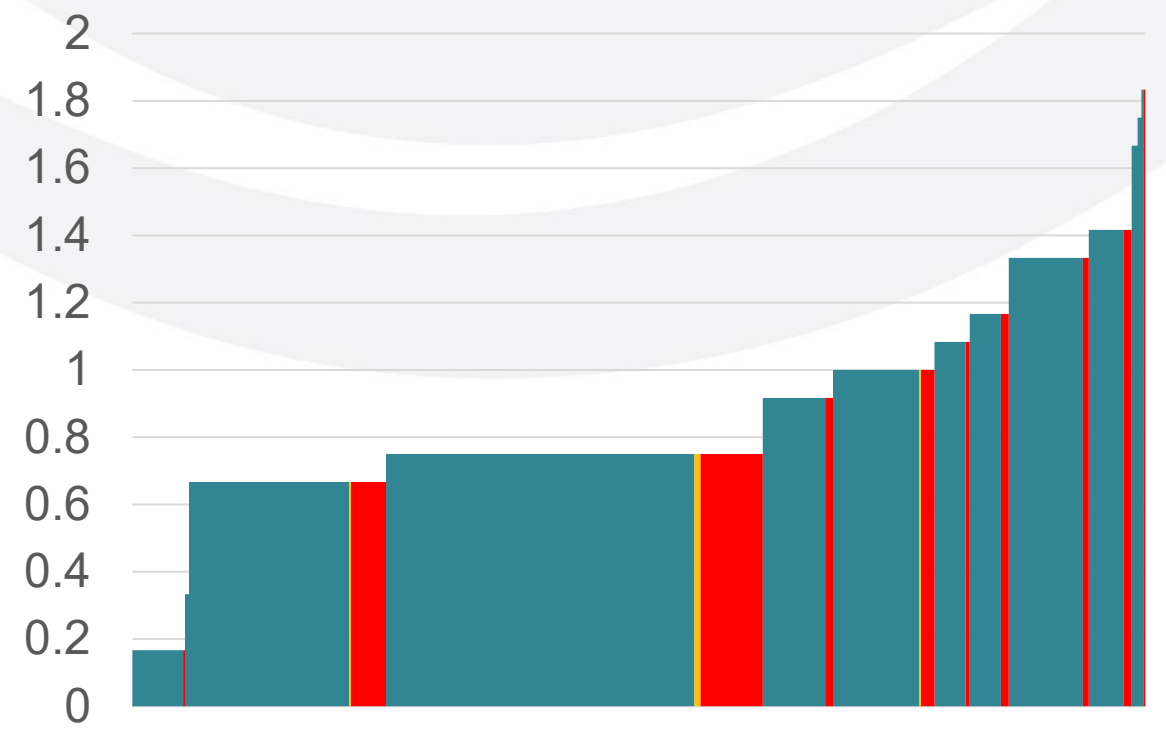
Affordability Category Assessment Results (519 systems of 1,903 included)

Option 1: No Risk Indicator Weights



1384 Systems score 0 points

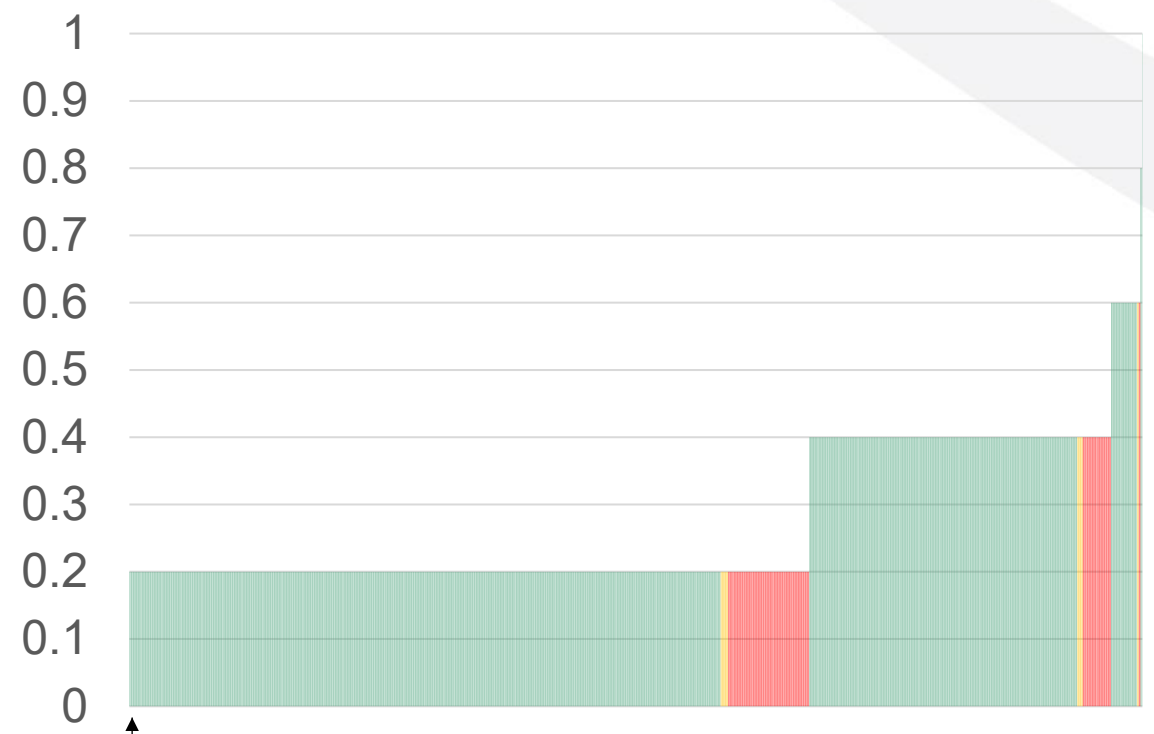
Option 2 & 3: Risk Indicator Weights Included



Not HR2W Current HR2W Expanded HR2W

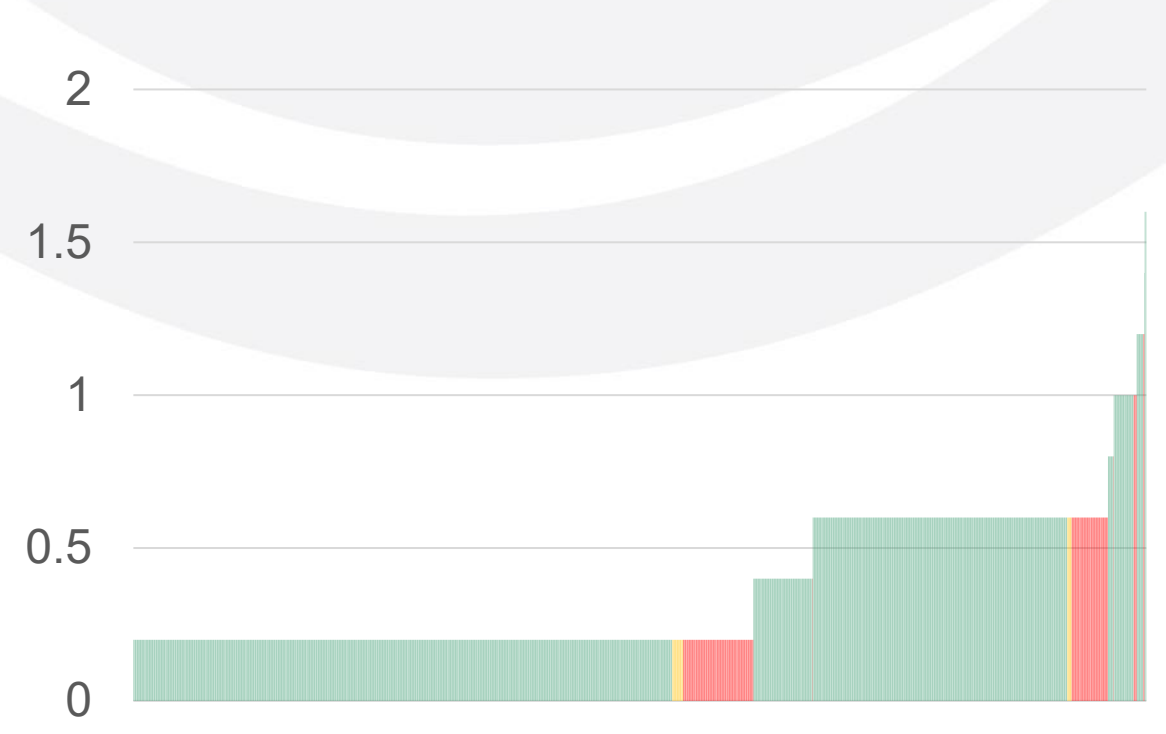
TMF Capacity Category Assessment Results (2,608 systems of 2,850 included)

Option 1: No Risk Indicator Weights



242 Systems score 0 points

Option 2 & 3: Risk Indicator Weights Included



Not HR2W Current HR2W Expanded HR2W

Audience Poll Question 6

After reviewing the category assessment results, do you support different “weights” for individual risk indicators?

- Yes, I support different weights
- No, all risk indicators should have the same weight
- I need more time to consider this question before I can provide feedback

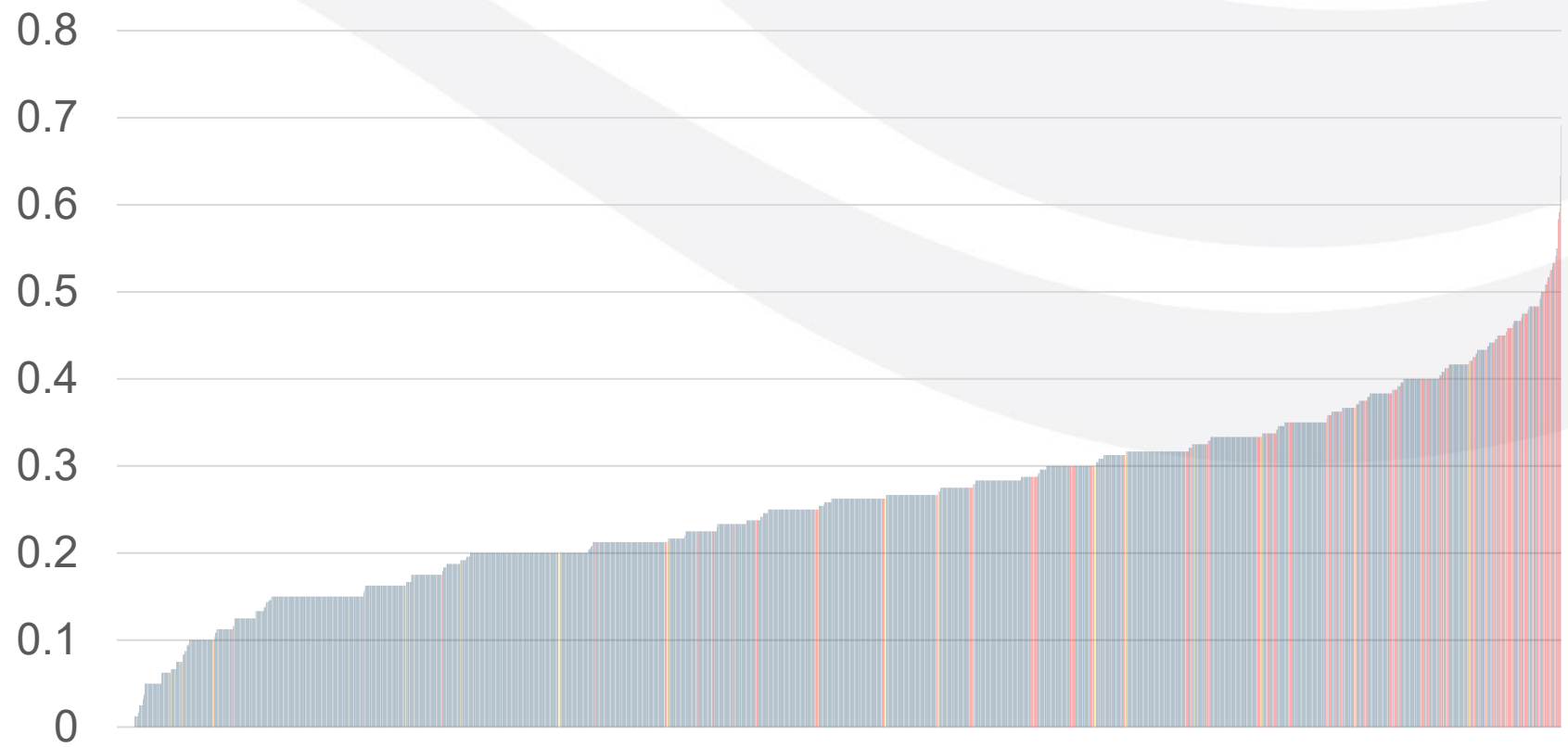
Access White Paper here:

https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf

Provide a written response to poll questions at the link below by **January 6th**:

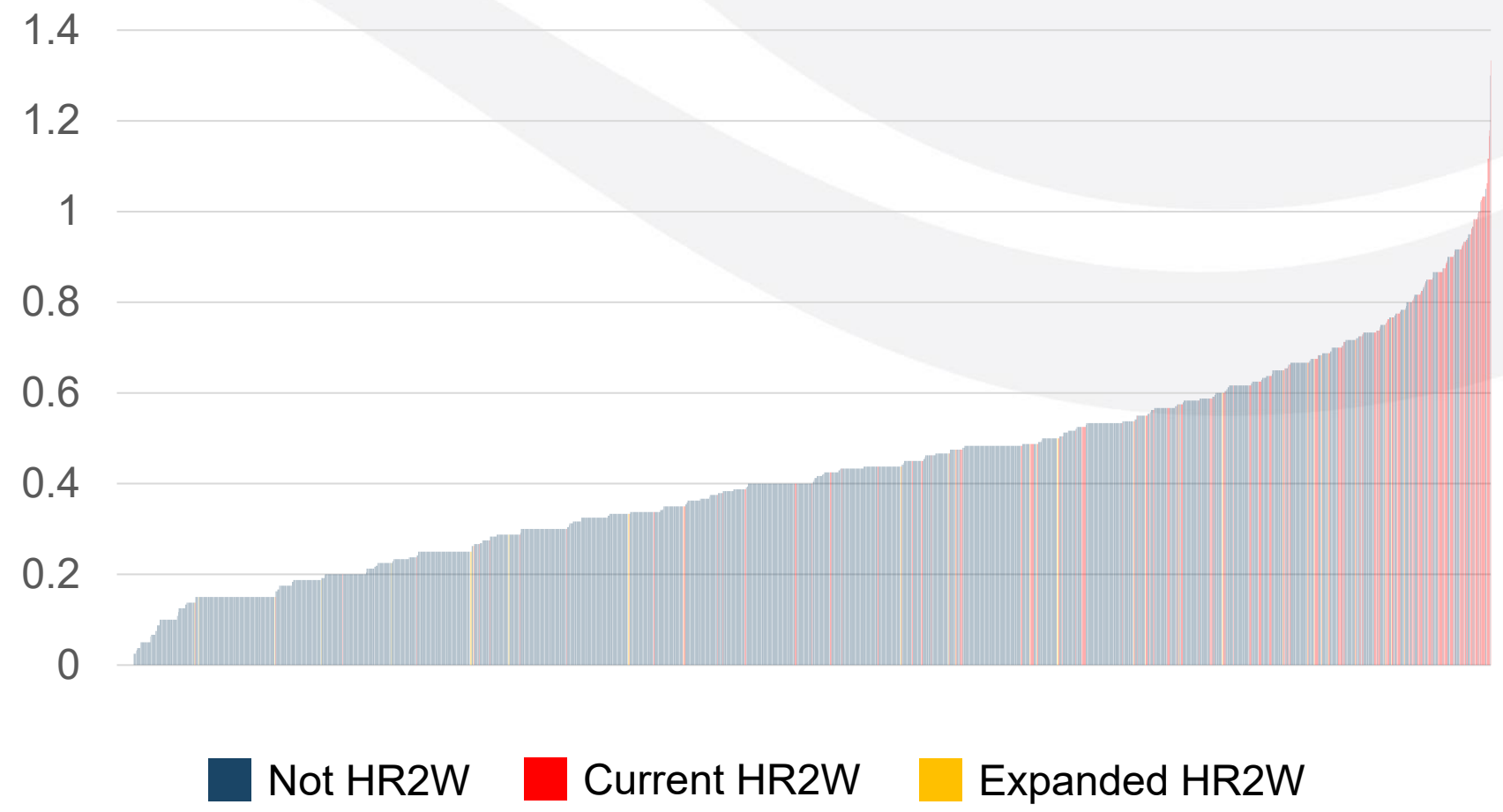
- <https://bit.ly/3oFVCpx>

Risk Assessment Option 1: No Weights – Raw Results

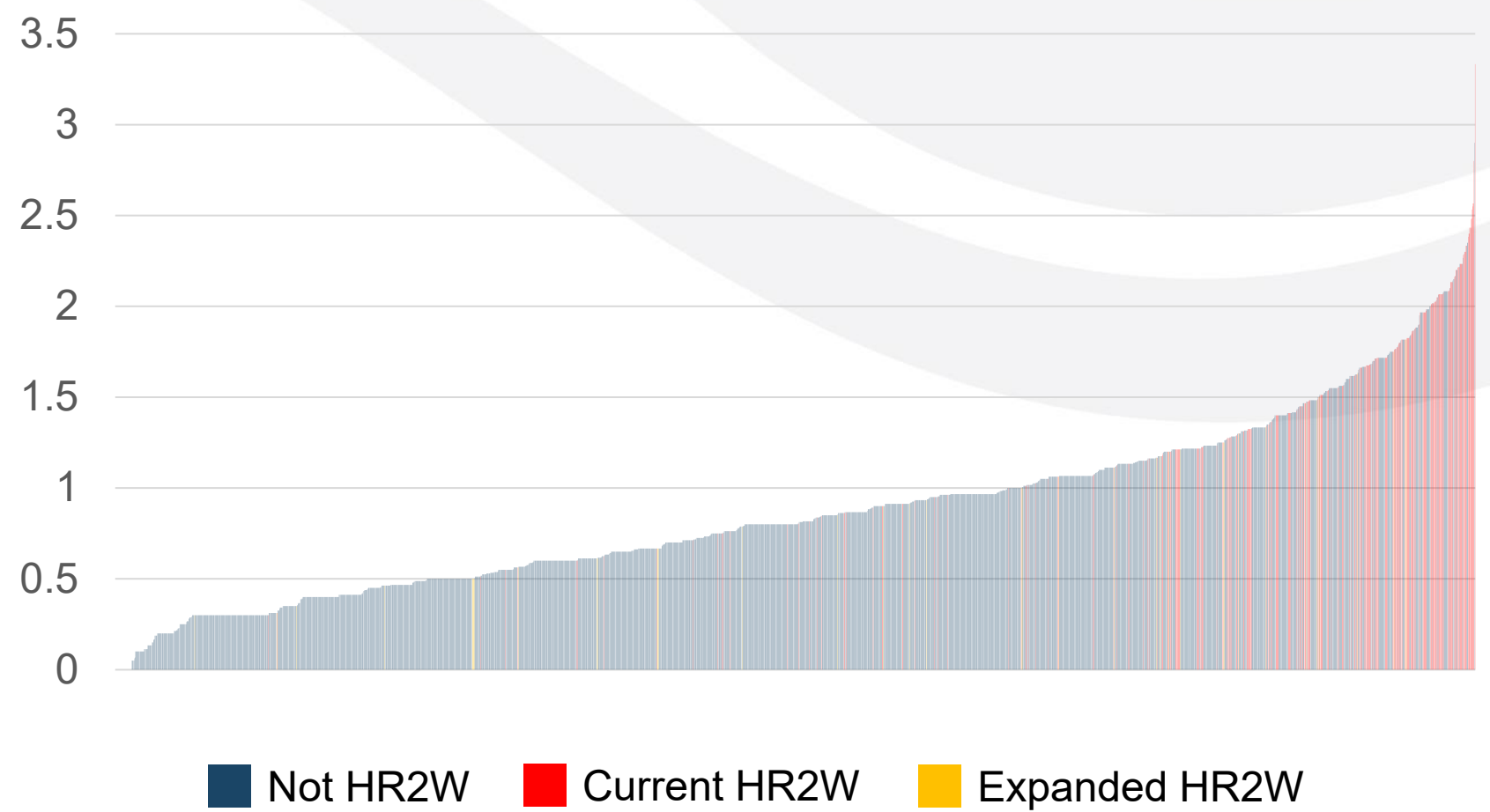


■ Not HR2W ■ Current HR2W ■ Expanded HR2W

Risk Assessment Option 2: Risk Indicator Weights Only Results



Risk Assessment Option 3: Risk Indicator & Category Weights Results



Audience Poll Question 7

Do you support different “weights” for risk indicator categories?

- Yes, I support different weights
- No, all risk indicators should have the same weight
- I need more time to consider this question before I can provide feedback

Access White Paper here:

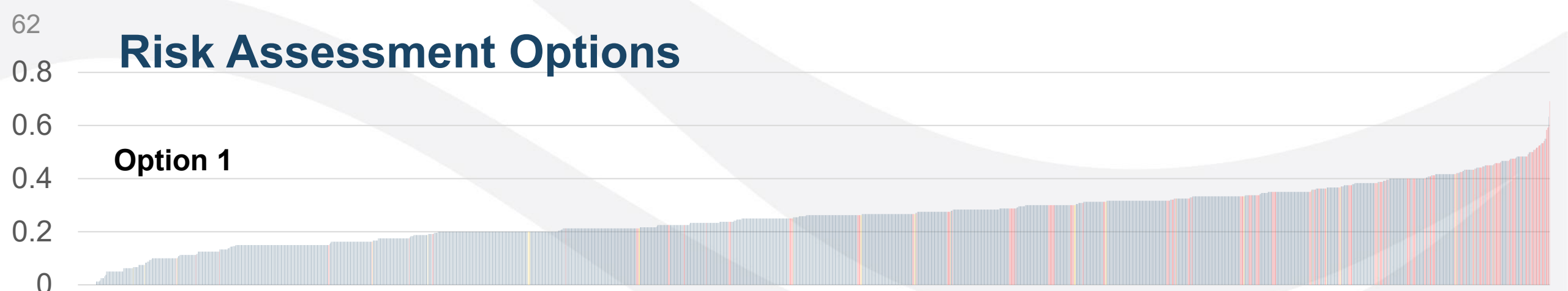
https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf

Provide a written response to poll questions at the link below by **January 6th**:

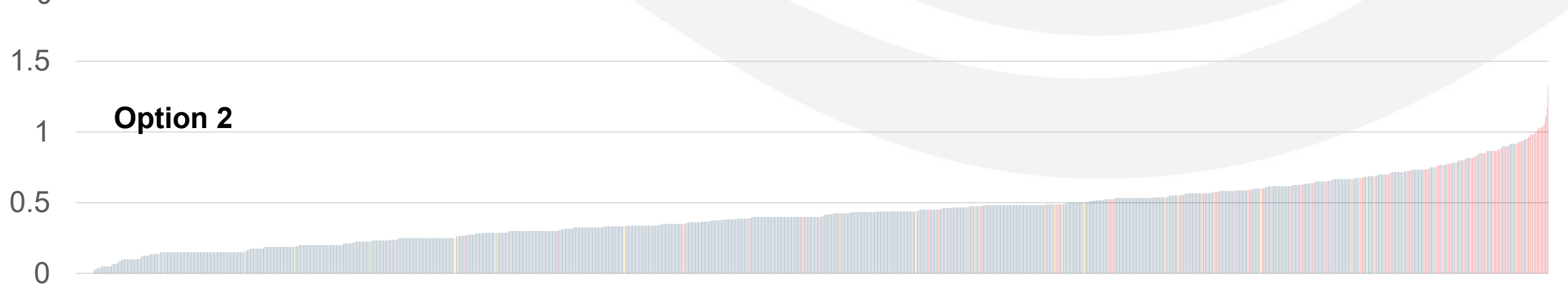
- <https://bit.ly/3oFVCpx>

Risk Assessment Options

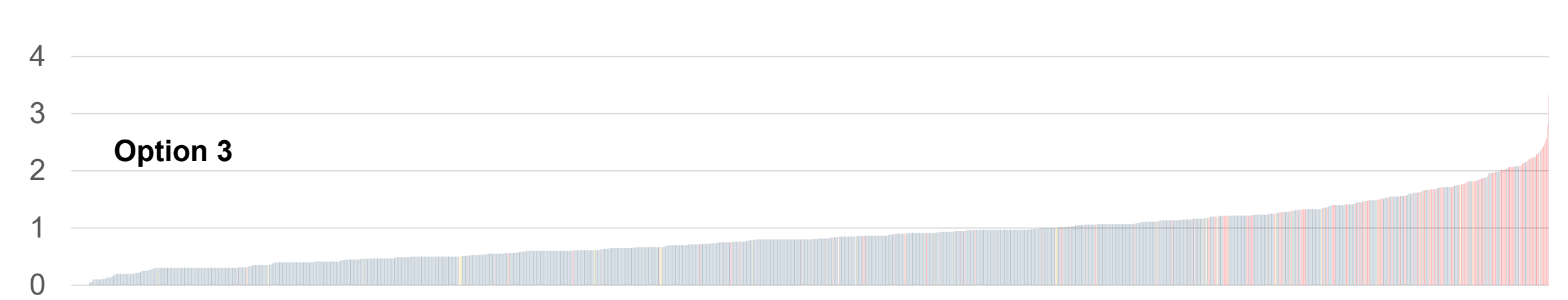
Option 1



Option 2



Option 3



Audience Poll Question 8

Do you support any of the Risk Assessment methodology options presented here?

- Yes, I like Option 1
- Yes, I like Option 2
- Yes, I like Option 3
- I need more time to consider these options before I can provide feedback
- No, I don't like any of these options

Access White Paper here:

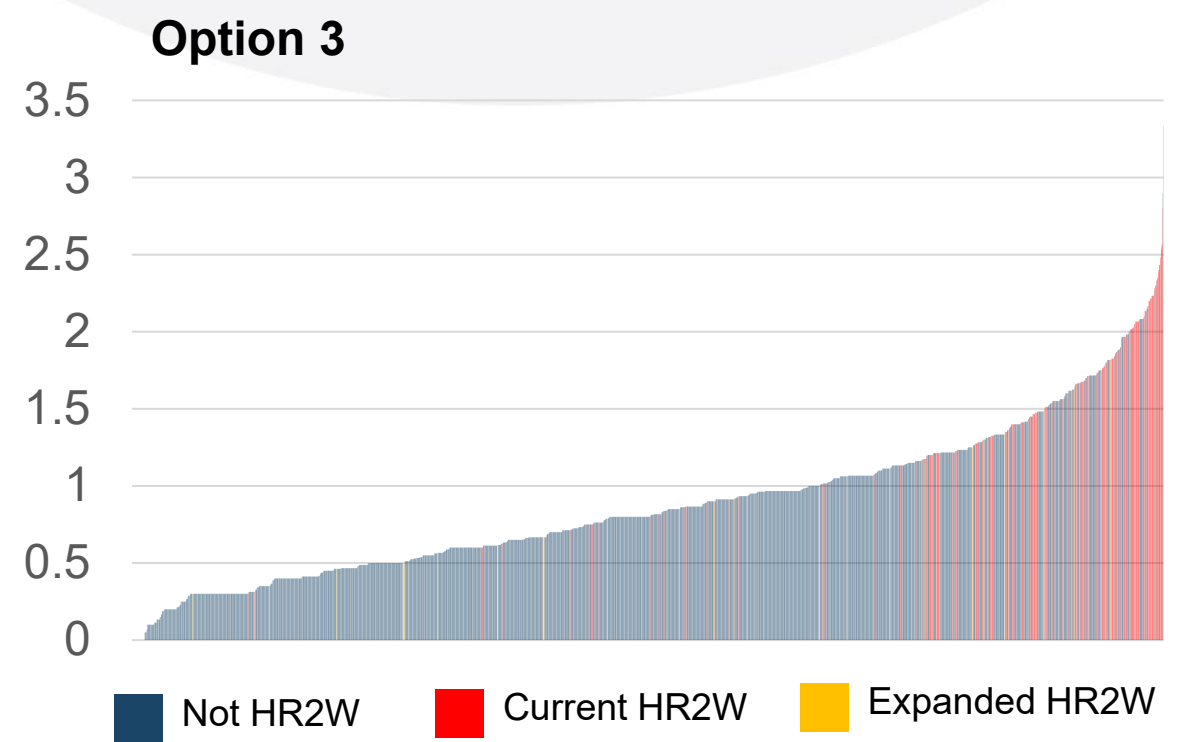
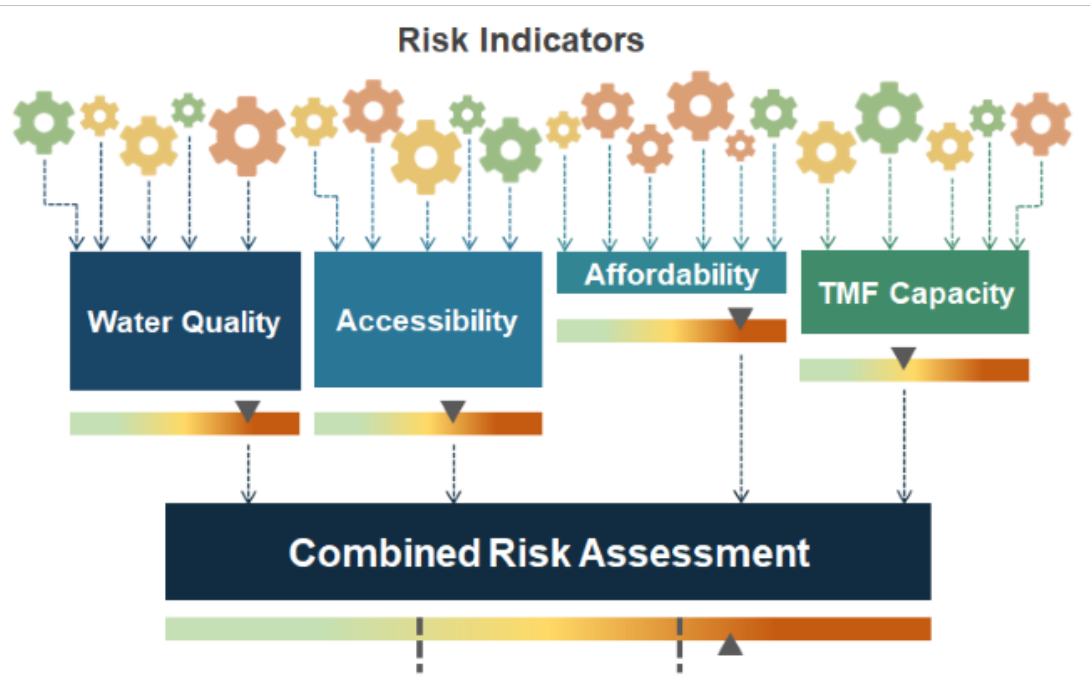
https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf

Provide a written response to poll questions at the link below by **January 6th**:

- <https://bit.ly/3oFVCpx>

The State Water Board recommends **Option 3** for Risk Assessment 2.0.

This option is recommended due to the distribution of the current and expanded HR2W systems.



Recommended Risk Assessment Thresholds

The State Water Board recommends the following Risk Assessment 2.0 thresholds for public consideration:

- “**Potentially At-Risk**” threshold of **0.75** (584 systems - excluding HR2W; 23%)
- “**At-Risk**” threshold of **1.0** (702 systems - excluding HR2W; 28%)

These thresholds were determined based on where the current and expanded HR2W systems started to cluster.



Audience Poll Question 9

Do you support the recommended methodology Option 3?

- Yes, I support this recommendation
- Maybe, I think this recommendation needs minor changes
- Maybe, I need more time to consider before I can provide feedback
- No, I don't support this recommendation

Access White Paper here:

https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf

Provide a written response to poll questions at the link below by **January 6th**:

- <https://bit.ly/3oFVCpx>

Audience Poll Question 10

Do you support the recommended proposed “Potentially At-Risk” and “At-Risk” thresholds?

- Yes, I support these recommendations
- Maybe, I think these recommendations need minor changes
- Maybe, I need more time to consider before I can provide feedback
- No, I don't support these recommendations

Access White Paper here:

https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf

Provide a written response to poll questions at the link below by **January 6th**:

- <https://bit.ly/3oFVCpx>

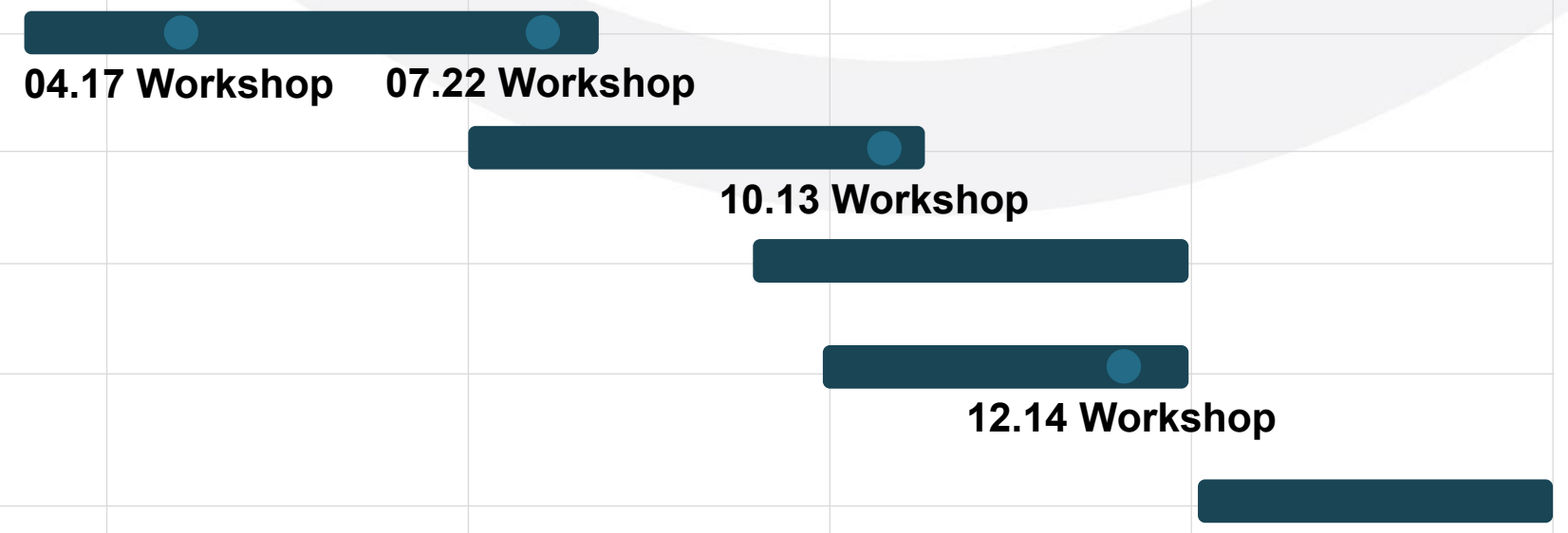
Immediate Next Steps

- Incorporate public feedback to finalize **Risk Assessment 2.0**.
 - White Paper: https://www.waterboards.ca.gov/safer/docs/draft_white_paper.pdf
 - Submit feedback by **January 6th** to: SAFER@waterboards.ca.gov
 - Email Title: Public Water System Risk Assessment
 - Poll & Discussion Questions: <https://bit.ly/3oFVCpx>
- Conduct Phase 5 of Development – Perform Risk Assessment for the 2021-22 Fund Expenditure Plan.
- The State Water Board will release a white paper in February 2021 detailing the final Risk Assessment 2.0 methodology.
- Results of Risk Assessment will be published in the Draft Fund Expenditure Plan.

Projected Risk Assessment 2.0 Timeline

Q1 2020 Q2 2020 Q3 2020 Q4 2020 Q1 2021

PHASES
1: Identify Potential Risk Indicators
2: Select Risk Indicators
3: Set Thresholds
4: Determine Scoring/Weighting Approach
5: Conduct 2021-22 Risk Assessment



Proposed Needs Assessment Timeline

January: Conduct Needs Assessment:

- Conduct **Risk Assessment**.
- Conduct **Costs Assessment**.
- Conduct **Affordability Assessment**.

February:

- **Risk Assessment** white paper published with final methodology.
- **Cost Assessment**: 02.26 webinar highlighting draft results of potential costs and overview of funding gap analysis methodology.

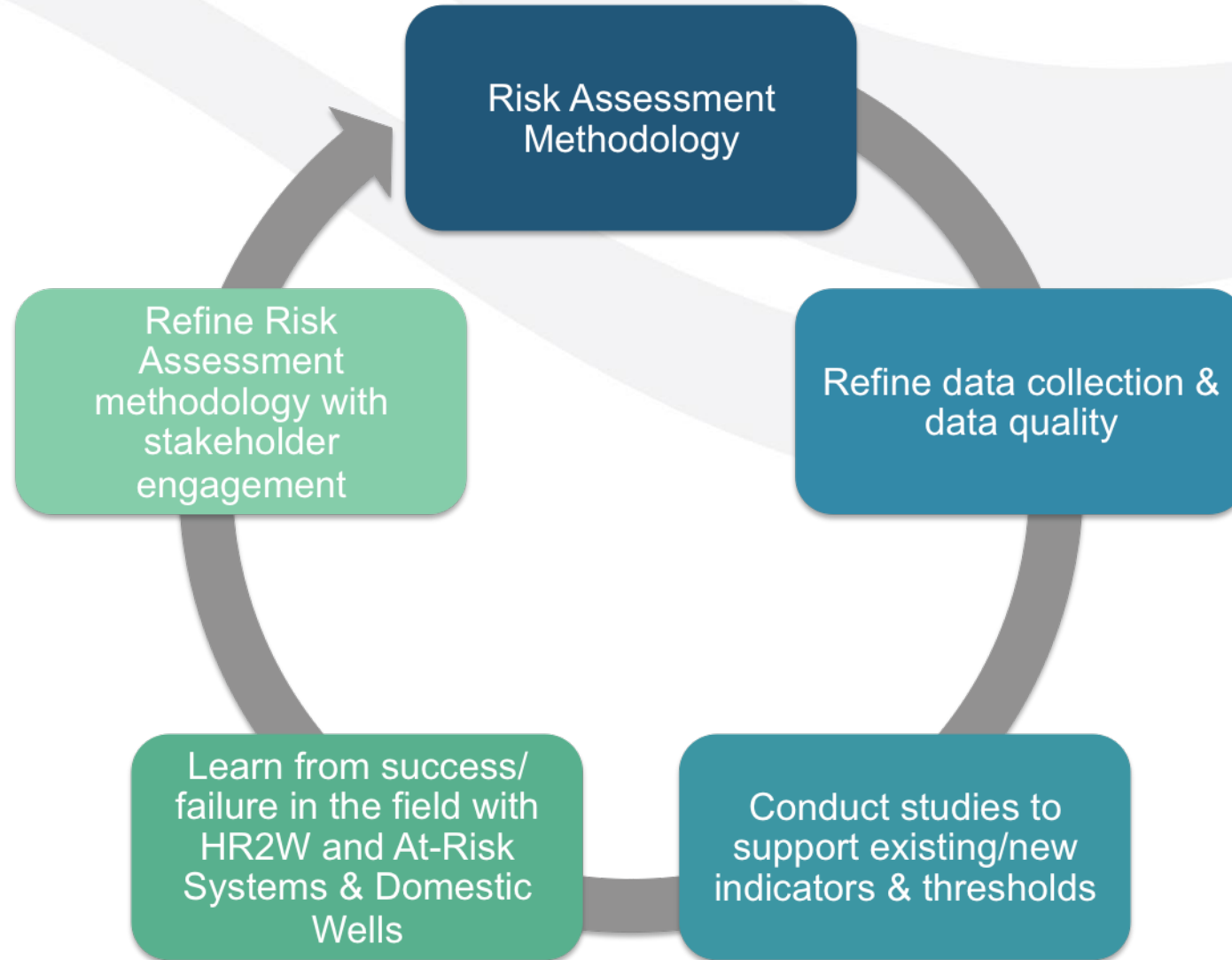
March:

- **Needs Assessment** contract with UCLA concludes.
- **Needs Assessment** results delivered to DFA for Fund Expenditure Plan.

April: Draft **Fund Expenditure Plan** released for 30-day public comment.

June: **Fund Expenditure Plan** considered by Board for adoption.

Risk Assessment 3.0 + Vision for the Future



Discussion Topic: Open Q&A

Do you have any questions or comments about the development of the Risk Assessment methodology?

Ways to Participate-

1. Watch ONLY: Visit video.calepa.ca.gov
2. Email: Submit a comment or ask a question that will be read aloud, send an email to: safer@waterboards.ca.gov
3. Q&A: Submit a question using the Q&A feature at the bottom of your Zoom Screen. You can UPVOTE any question you would like answered.
4. Raise Hand: Attendees will be given the opportunity to provide verbal comment or ask questions, if you're interested in this option, please raise your virtual hand when the time is right.

- Please wait for your name to be called.
- Public comments are 3 minutes each.



Next Steps and Announcements

Closing Remarks & Gratitude