CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MEETING OF JUNE 10, 2020

ITEM 5

PRIORITIZING THE LAHONTAN REGION 303(d) LIST

CHRONOLOGY	
June 2014	The Lahontan Regional Water Quality Control Board (Water Board) adoption of the 2012 Integrated Report for the Lahontan Region
July 2015	Water Board Meeting presentation of the staff-developed Strategy for Prioritization of the 2012 303(d) List Impairments
November 2019	Water Board adoption of 2018 Integrated Report for the Lahontan Region that includes updates to the 303(d) List of Impaired Waters
June 2020	Water Board Meeting presentation of the staff-developed Strategy for Prioritization of the 2018 303(d) List Impairments

BACKGROUND

The 303(d) List identifies the impaired waterbodies in the Lahontan Region and the specific waterbody/pollutant combinations (i.e., impairments) that do not meet applicable water quality objectives. Once a waterbody is placed on the 303(d) List, the Water Board must determine the most effective way to address the impairment. A Total Maximum Daily Load (TMDL) may be needed or a regulatory action (such as a cleanup order or waste discharge requirements) may be the most appropriate way to improve water quality and restore the beneficial use(s). In some cases, the most appropriate way to address an impairment is by refining or updating the water quality standard, or some other basin planning effort. Due to the number of impairments that need to be addressed, a method to prioritize them is needed to assist staff when developing annual workplans.

After completion of the 2012 update to the 303(d) list, staff developed a 2015 strategy to prioritize 303(d) impairments based on categorizing the impairments and placing them into bins that help prioritize staff work planning when developing future actions to address them. The purpose of the prioritization is to help the planning process to optimize and assign resources consistent with Water Board priorities.

DISCUSSION

This Item presents an update of the 2015 prioritization strategy. The update clarifies for each bin the range of actions staff could propose to address the listings within that bin. The Item incorporates listings recommended by the Water Board in November 2019 as part of the 2018 Integrated Report cycle.

Staff developed four bins to categorize the listed waterbodies that are meant to describe the status of each impairment. Each waterbody/pollutant combination will be sorted into one of the four bins with their contents defined below:

- Bin 1: Impairment confirmed, already addressed
- Bin 2: Impairment confirmed; action needed
- Bin 3: Impairment verification needed
- Bin 4: Basin Planning action recommended to address impairment

Those 303(d)-listed waterbody/pollutant combinations that are currently being addressed by a regulatory action or a U.S. EPA-approved TMDL have been grouped into Bin 1. Waterbody 303(d) listings in Bin 2 are confirmed impairments that need to be addressed or are currently being addressed through the development of a regulatory action or a TMDL. Waterbodies where further assessment may be appropriate prior to devoting staff resources to develop actions to address the impairment are grouped together into Bin 3 for further data collection by staff, primarily through the Surface Water Ambient Monitoring Program (SWAMP). Waterbodies that staff may recommend basin planning actions to the Water Board are grouped in Bin 4. Such basin planning actions could include the revision of water quality objectives, the development of site-specific objectives, the development of a natural sources policy, or other non-TMDL basin planning actions.

The updated 2020 prioritization strategy is provided as Enclosure 1. The current 303(d) list was prioritized based on the updated strategy and the results are provided as Appendix A to the staff report.

CLIMATE CHANGE MITIGATIONAND ADAPTATION STRATEGY

Climate change may affect precipitation and runoff regimes during both drought and extreme precipitation events. These potential extremes may influence concentration of streamflow-related constituents and could increase the number of waterbody-pollutant combinations on the 303(d) list. Additionally, many lakes throughout the Lahontan Region may be impacted by increases or decreases in inflow and by increasing ambient temperatures, further impacting the ability of those water bodies to support beneficial uses. This paradigm may make future 303(d) list prioritization and workplanning efforts more challenging and complex.

PRESENTERS
Jennifer Watts, Water Board, Environmental Scientist

RECOMMENDATION
This is an informational item and no formal action is requested, though Water Board members may give direction to staff.

ENCLOSURE	ITEM	BATES NUMBER
1	2020 Prioritization Strategy Staff Report and Appendix A	**5 - 5**
2	Water Board staff presentation (Jennifer Watts)	**5 - 34**

ENCLOSURE 1

2020 Prioritization Strategy for Lahontan Region 303(d) List

Guidelines for Prioritizing Listed Water Bodies

Lahontan Regional Water Quality Control Board

June 2020

INTRODUCTION

Under the federal Clean Water Act (CWA), states that administer the CWA must periodically review, make necessary changes to, and submit the CWA section 303(d) List of impaired waterbodies to the U.S. Environmental Protection Agency (U.S. EPA). Additionally, CWA section 305(b) requires each state to report biennially to U.S. EPA, on the condition of its surface water quality. Together, the 303(d) List and the 305(b)report are combined into the Integrated Report.

The 303(d) List identifies the impaired waterbodies in the Lahontan Region that do not meet applicable water quality objectives. Listing decisions are made in conformance with the State Water Board's Water Quality Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy). Once a waterbody is placed on the 303(d) List, the next step is for the Water Board to determine the most effective way to address the impairment. A Total Maximum Daily Load (TMDL) or a regulatory action (such as a cleanup order or waste discharge permit) may be the most appropriate way to improve water quality and restore the beneficial use(s). In some cases, other basin planning actions may be the most appropriate action, such as through development of a natural source policy or revised water quality objectives. In general, the goal when addressing impaired waterbodies is to restore water quality and beneficial uses where controllable sources have been identified and implementation of a TMDL or other regulatory action is appropriate, thereby reducing the overall number of impaired waterbodies in the Lahontan Region.

In November 2019, the Water Board adopted the 2018 Integrated Report that includes updates to the 303(d) List. The State Water Board will consider approving these updates in October 2020 and will then forward them to the U.S. EPA for approval. Based on the 2018 updates, the Lahontan Region has **116** waterbodies (e.g., lakes, reservoirs, rivers, or reaches of rivers) listed as impaired and a total of **256** individual 303(d) List waterbody/pollutant combinations (i.e., individual impairments). Of those, **45** waterbody/pollutant combinations are being addressed either by U.S. EPA-approved TMDLs or by other regulatory actions. The process used to prioritize staff resources to address the Region's listed waters is the focus of this staff report.

USE OF THIS DOCUMENT

This document is a reference for staff so that TMDL and Basin Planning resources to address impaired waters will be generally applied in a consistent and justifiable manner. This document does not provide a timeline to address the 303d listings. Development of TMDLs, regulatory actions, or Basin Plan amendments to address impaired waters is dependent on available resources. Additionally, more complex impairments justify more resources. Policy or science-based exceptions to this guidance document may result in resources being spent on impairments inconsistent with the prioritization presented in this document and appendix.

CONTENTS OF 303(d) LIST

The 303(d) list is a subset of the 2018 Integrated Report, which assesses the water quality of all waterbodies for which data are available in the Lahontan Region (Section 305(b)), and determines which water bodies are not fully supporting beneficial uses (Section 303(d)). Integrated Report Categories 4A, 4B, and 5 comprise the Section 303(d) list. The defining element of a waterbody on the list is impairment of one or more beneficial uses. The impairment status is different for each of the three categories that comprise the list:

- Category 4A: Evidence shows at least one use is not supported and a TMDL has been developed and approved by U.S. EPA. This category applies only to waterbodies with all listings addressed by U.S. EPA-approved TMDLs.
- Category 4B: Evidence shows at least one use is not supported but a TMDL is not needed because an existing regulatory program is reasonably expected to result in attainment of the water quality standard within a reasonable, specified time frame. This category applies only to waters with all listings addressed by alternative regulatory programs.
- Category 5: Evidence shows at least one use is not supported, and a TMDL or other regulatory action is needed. Category 5 includes waterbodies for which some, but not all listings are addressed by TMDLs or alternative regulatory programs. Included within Category 5 are the following subcategories:
    - Category 5A means a TMDL or regulatory action is needed.
    - Category 5B means the listing is being addressed by an approved TMDL but other listings for the same waterbody still need TMDLs.
    - Category 5C means the listing is being addressed by an action other than an approved TMDL but other listings for the same waterbody still need TMDLs.

PRIORITIZATION APPROACH

The first prioritization step is to separate the impairments on the 2018 303(d) List into groups or “bins” that define the current knowledge of the waterbody impairment. The bins are defined in detail below. Staff will then focus resources on addressing the waterbodies in the Bins where further actions may be needed to address the impairment (e.g., Bin 2 and Bin 4). Listings placed in those Bins are prioritized, consistent with Water Board priorities, to inform work planning efforts. Staff will seek additional data to determine if listings in Bin 3 require regulatory controls or standards actions. A schematic of the binning process is depicted in Figure 1 and an explanation of the binning and prioritization structure is provided below. Please refer to *Appendix A* for the results of the staff work planning prioritization process applied to the waterbodies on the 303(d) List.

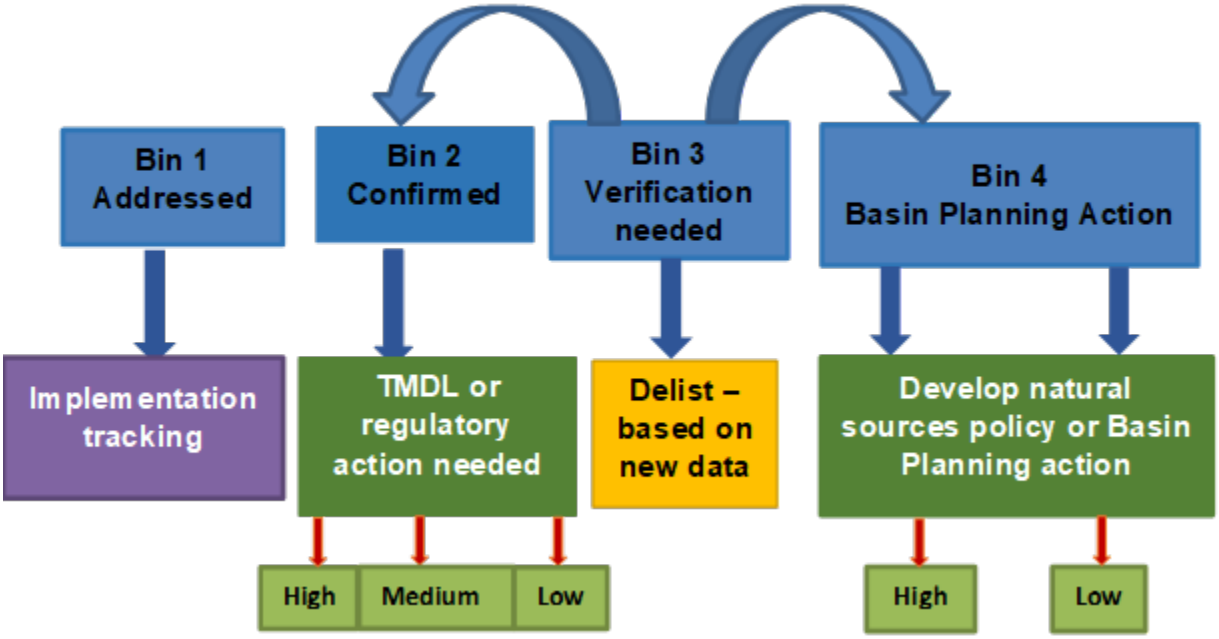

Figure 1: Prioritization schematic- The binning and prioritization process is a dynamic process. 303(d) listings in Bin 3 may eventually be moved to Bin 2 or Bin 4 as additional information is obtained. Alternatively, additional data may support delisting a waterbody during the Integrated Report. The graphic indicates other areas where staff effort will be required either through implementation tracking (Bin 1), development of regulatory actions (Bin 2), or policy development and standards actions (Bin 4).

Overview of Binning Process

The first prioritization step is to use current staff knowledge, available information and water quality data, and the Listing Policy to place all 303(d)-listed waterbody impairments into bins. Staff developed four bins to categorize the listed waterbodies that are meant to describe the status of each impairment. Each waterbody/pollutant combination will be sorted into one of the four bins with their contents defined below:

- Bin 1: Impairment confirmed; already addressed
    a) By an action other than a TMDL
    b) By a U.S. EPA-approved TMDL

- Bin 2: Impairment confirmed; action needed
    a) Evaluate whether non-TMDL regulatory strategies such as new or updated Board orders are appropriate
    b) develop a TMDL as appropriate
    c) Includes impairments for which staff are currently developing U.S. EPA Vision Projects

- Bin 3: Impairment verification needed
    a) Evaluate existing dataset together with additional information to verify impairment. Conduct additional water quality sampling as needed. Based on additional information, this could lead to:
        i. impairment confirmed (move to Bin 2)
        ii. no impairment (delist using additional data collected)
        iii. new data indicates water quality objective exceeded but objective may be inappropriate (move to Bin 4)

- Bin 4: Identifying impaired Waterbodies for possible non-TMDL Basin Planning action (e.g., revised water quality objectives or developing new policies)
    a) Natural sources likely responsible for impairment
    b) 303(d)-listed based on exceedances of water quality objectives that may be inappropriate and/or are more stringent than needed to protect beneficial uses (may require development of a new or revised water quality objective)
    c) Problematic/inappropriate evaluation criteria for the beneficial use assessed

Binning Process and Prioritization in Detail

Bin 1 in Detail – This category includes those 303(d)-listed waterbody/pollutant combinations that are currently being addressed by a regulatory action or a U.S. EPA-approved TMDL. An example of this is the Lake Tahoe TMDL, that addresses Lake Tahoe's water clarity impairment due to fine sediment and nutrients. Bin 1 includes Categories 4A, 4B, 5B, and 5C of the 303(d) List. The listings in Bin 1 do not require any prioritization as actions have already been developed to address the impairment. Table 1 summarizes the **31** listings being addressed by an adopted TMDL. In some cases, staff resources are needed to periodically review effectiveness or progress of implementation and determine need for revision.

Table 1. Number of 303(d) Listings addressed by a TMDL

TMDL	# Listings being Addressed	Year TMDL Approved by US EPA
Heavenly Valley Creek Sediment	1	2002
Indian Creek Reservoir Phosphorus	2	2003
Squaw Creek Sediment	1	2007
Blackwood Creek Sediment	1	2008
Truckee River Sediment	3	2009
Lake Tahoe Sediment and Nutrients	23	2011

For the other 14 listings that are being addressed by actions other than a TMDL, Table 2 lists the action taken for the waterbody and the number of listings being addressed.

Table 2. 303(d) Listings addressed by a regulatory action other than a TMDL

Action in lieu of TMDL	Waterbodies-pollutant(s) addressed	# Listing(s) Addressed	Year Action Started
CERCLA Leviathan Mine remediation	Leviathan Creek, Aspen Creek, Bryant Creek – metals	3	1992
State Water Board Water Rights Decision to control lake level and salts	Mono Lake - salinity/TDS/chlorides	1	1998
Cleanup and Abatement Orders	Searles Lake – Salinity/TDS/Chlorides and Total Petroleum Hydrocarbons	2	2006
Bridgeport Grazing Waiver – pathogens (renewed by Board Order R6T-2017-0033)	Buckeye and mid-Branch Buckeye Creeks, Robinson Creek (Twin Lakes to Hwy 395, Hwy 395 to Bridgeport Reservoir), Swauger Creek, East Walker River (above Bridgeport Reservoir) Indicator Bacteria	6	2012
STPUD WDR for wastewater disposal (Board Order R6T-2004-0010)	Snowshoe Thompson Ditch 1 – Phosphorus and Total Kjeldahl Nitrogen	2	2012

Bin 2 in Detail – This category captures waterbody/pollutant combinations for which impairments are confirmed, based on the water quality data and information assessed for the Integrated Report, but which are not yet being addressed either by a TMDL or other regulatory action..

The impairments in Bin 2 are divided into tiers that identify whether they are high, medium or low priority. Bin 2 includes impairments for which Lahontan and/or State Water Board staff are currently developing Vision Projects, plans, or other actions to address the impairment. Those impairments are shown in Table 3 below and include three projects, the Bishop Creek Vision Project, the West Fork Carson River Vision, and the Statewide Mercury Control Program for Reservoirs.

Table 3. Waterbodies for which water quality improvement plans are currently under development

Project Name	Waterbody Segments Addressed	303(d) Listing(s) Addressed
Bishop Creek Vision Project	Bishop Creek, B-1 Drain, Bishop Creek Canal, Bishop Creek Forks (North and South Forks below bifurcation	Indicator Bacteria
West Fork Carson River Vision Project	Headwaters to Hope Valley	Nitrate, Phosphorus, Sulfates, TKN
	Hope Valley to Woodfords	Chloride, Nitrogen, Nitrate, Sulfates, TDS, Turbidity, Phosphorus, TKN
	Woodfords to NV stateline	Indicator Bacteria, Iron, Nitrogen, Nitrate, Sulfates, TDS, TKN, Turbidity
Statewide Mercury Control Program for Reservoirs	Lake Arrowhead Bridgeport Reservoir Lake Gregory Littlerock Reservoir Silverwood Lake Topaz Lake Twin Lake, Upper	Mercury

Bin 2 Prioritization **–**Since there are limited staff resources in the Planning and Assessment Unit to address the impairments, listings must be prioritized to determine which to work on first. Consequently, Bin 2 waterbody impairments are further categorized as either High, Medium or Low priority, as shown below:

1. High priority:
    a. Impairment due to pollutant that may cause direct impacts to human health or impairments to waterbodies with sensitive aquatic habitat designated with RARE or BIOL beneficial uses. Highest priority assigned to rural and urban locations within or nearby disadvantaged communities and/or waterbodies that support special status species.
    b. Impairments for which staff are currently developing a water quality improvement plan or TMDL.

    Examples: mercury impairments in waterbodies where fishing is popular; waterbodies with high levels of bacteria where people often swim or otherwise recreate in the water.

2. Medium priority
    a. Impairment due to pollutant that impacts multiple beneficial uses, including multiple impairments to aquatic life uses
    b. Waterbody located in non-urban area with known recreation

3. Low priority
    a. Waterbody located in non-urban area with little to no recreation visits, corresponding to a low human health risk
    b. Waterbody is isolated and not hydrologically connected to other waterbodies or is ephemeral with only seasonal support of beneficial uses

Bin 3 in Detail – In this category, impairment verification is needed and includes waterbody-pollutant combinations that are on the Lahontan 303(d) List, but where further assessment may be appropriate prior to devoting staff resources to develop actions to address the impairment. This includes where assessed data meets Listing Policy criteria for addition to the 303(d) list, but more data is needed to be representative of waterbody water quality. It also includes where a listing is historic and minimal or no data is available for assessment.

For impairments in Bin 3, staff recommends obtaining additional monitoring data or other information to verify the impairment before assigning resources to address them. Additional information may confirm staff confidence in an impairment, warranting a listing's inclusion in Bin 2. Such information may include staff knowledge, high quality data that was not assessed during the Integrated Report process, discharger information, or identification of the pollutant source.

Additional monitoring data may reveal there is no impairment and may provide evidence and the dataset to de-list based on the Listing Policy. In cases where staff determines the waterbody is impaired based on the applicable water quality objective, but that the objective may be inappropriate or the impairment is due to natural sources, a Basin Planning action may be required and the listing would be moved to Bin 4. An example of an inappropriate objective is when an exceedance does not mean that a beneficial use is impaired, or when an investigation into historic Basin Plan documents indicates the objective was set based on an inappropriate method or lacked sufficient data support. In cases where additional water quality data confirm the impairment of a beneficial use, those listings would be moved to Bin 2 to be addressed in the future by a TMDL or other regulatory action.

Bin 4 in Detail – This category captures 303(d) listings that staff may recommend basin planning actions to the Lahontan Board. Such basin planning actions could include the revision of water quality objectives, the development of site-specific objectives, the development of a natural sources policy, or other non-TMDL basin planning actions.

For example, this could include developing actions to address impairments that may be due to natural sources found locally in the environment that are not able to be

controlled. The Lahontan Region includes locations where geological features can include mineral deposits that contribute substances to surface waters that can cause exceedances of applicable water quality objectives. For example, features like geothermal springs may discharge high concentrations of naturally occurring TDS, sulfate, boron and other minerals into downstream surface waters. One avenue to address these impairments is to develop and adopt a natural sources policy either at the Regional Water Board or State Water Board level that provides a means to not include these waterbodies on the 303(d) list. Another means to address natural sources is to develop site specific objectives for specific contaminants for certain locations where impairments are likely due to conditions, such as the presence of hot springs or certain geological features that can provide pollutant sources to nearby waterbodies.

In addition, the Water Quality Control Plan for the Lahontan Region (Basin Plan) contains many site-specific objectives that were developed based on limited, historical water quality data sets that likely did not adequately characterize ambient water quality. This resulted in the establishment of water quality objectives that are often not appropriate for a given waterbody. In many cases, waterbodies are listed based on Basin Plan water quality objectives that are more stringent than needed to protect the beneficial uses. That is, exceedances of the Basin Plan objective may not indicate impairment of the beneficial use. Water Board staff may need to develop or revise site specific objectives for these waterbodies in Bin 4. Alternatively, for impairments that occur throughout the region, such as for Total Dissolved Solids (TDS), the best approach may be to develop new region-wide water quality objectives rather than to address each impairment individually.

Bin 4 Prioritization – This category contains 303(d) listings that may need to be addressed by a basin planning action such as a standards action. The basin planning action may involve the development of new or revised site-specific objectives, new region-wide objectives, a natural source policy that could apply throughout the Lahontan Region, or other non-TMDL basin planning action. To better direct staff resources, the contents of Bin 4 will be prioritized as High or Low priority depending upon the following factors or circumstances:

1. High priority:
    a. Impairments that have relevance to the implementation of other Water Board Programs
    b. Impairments for which a region-wide action can potentially address multiple waterbodies
    c. Impairment due to a pollutant that impacts multiple waterbodies throughout the Lahontan Region
    d. Waterbodies listed because of exceedance of numeric objectives where the beneficial use may still be supported

2. Low priority
    a. Impairment likely due to natural sources with low potential for impacts on human health or recreation

b. Waterbody is isolated and not hydrologically connected to other waterbodies, or is ephemeral and only support beneficial uses seasonally or for a short time

IMPLEMENTATION

Workplanning

The process of binning and prioritizing the 303(d) listings is useful for the annual preparation of staff workplans. The prioritization system provides a uniform process for evaluating current and future impairments on the Lahontan 303(d) List so workplans can address the high priority impairments first. Waterbody impairments that have the potential to directly impact human health are assigned the highest priority.

The Triennial Review of the Water Quality Control Plan is a separate prioritization process that informs workplanning for the Basin Planning program. The Triennial Review is a public process that incorporates basin planning requests from staff, the public, and, ultimately, Lahontan Water Board members. Prioritizing 303(d) listings, particularly Bin 4, will identify basin planning needs that affect other programs. These needs will be considered in the Water Board's Triennial Review project prioritization.

Additionally, Bin 3 can be used to inform collaboration between Integrated Report staff and the Surface Water Ambient Monitoring Program (SWAMP) as SWAMP staff review and update annual water quality monitoring plans. With this binning and prioritization process, staff can re-evaluate 303(d) listings each year during the annual development of the workplans. This will ensure the highest priorities are included in staff workplans.

Grants / Contract Proposals

Through the process of prioritizing listings, staff can develop TMDL discretionary contract ideas and potential grant proposals to address high priority listings. Having a system in place by which staff can prioritize and re-evaluate the listings periodically will assist in developing recommendations for new contract or grant proposals. It may also provide guidance for proposals to evaluate listings in Bin 3, where additional data or other information is necessary to confirm impairment.

Monitoring/Further Evaluation

The waterbody impairments in Bin 3 have been identified by staff as needing additional data. Further assessment will determine if the Bin 3 contents will be moved to Bin 2 or Bin 4.

Several listings placed in Bin 3 during the 2012 Integrated Report cycle were targeted for additional monitoring by Planning and Assessment unit staff. Staff began monthly sampling at Mammoth Creek, Rock Creek, East Walker River, and the Susan River to

verify impairments for those waterbodies. The original listings were based on a limited data set often based on just 2-4 samples collected per year for water quality objectives based on annual averages. The additional data collected verified the original listings and was used in the 2018 Integrated Report assessments. Those listings have been redistributed into either Bin 2 or Bin 4 as a result.

SUMMARY OF PRIORITIZATION RESULTS

The strategy for prioritizing the Lahontan Region's 303(d) listings described here was applied to the recently recommended 2018 303(d) List. The detailed results of the prioritization are found in Appendix A and a summary of the prioritized 303(d) list is provided in Table 4. Note that waterbodies may be included in more than one bin in Table 4 below. The exercise of prioritizing the **210** listings that have not yet been addressed helps staff identify which waterbody impairments will be the focus of staff time and resources when developing future TMDL, Basin Planning, and SWAMP program efforts, including collaboration with Water Board regulatory programs. As described above, listings that have already been addressed by a TMDL or other regulatory action (i.e., Bin 1) do not need to be prioritized. Implementation is conducted and tracked by the regulatory programs. Of the 50 listings in Bin 2, Water Board staff are currently working to address 31, as indicated above in Table 3, which leaves a total of 19 that remain to be addressed.

Table 4. Summary of 303(d) List Prioritization

	Bin 1	Bin 2	Bin 3	Bin 4	Total
Number of Waterbodies	**29**	**27**	**72**	**25**	**116**
Number of Impairments	**45**	**50**	**116**	**45**	**256**

Appendix A

Staff Work Planning Prioritization of the Lahontan Region's 2018 303(d) List

The following tables present the outcome of the staff work planning prioritization process for the Lahontan Region's 2018 303(d) List of Impaired Waterbodies. The placement of individual impairments into the appropriate prioritization bin is based on the process described in the updated Prioritization Strategy for THE Lahontan Region 303(d) List. Each waterbody/pollutant combination was sorted into one of the four bins with their contents defined below:

- Bin 1: Impairment confirmed and is already being addressed by a TDML or alternative action.

- Bin 2: Impairment confirmed – requires regulatory action or TMDL
    - Includes impairments that staff are currently working on to develop non-TMDL strategies (e.g., EPA Vision Projects)

- Bin 3: Impairment verification needed – additional water quality data or information is needed

- Bin 4: Develop recommendations to address through Basin Planning action or policy development

For Bin 1, the table includes information on which regulatory program or TMDL is being utilized to address the impairment. For Bin 2, the table includes further prioritization into tiers, High, Medium, and Low. For Bin 4, the table includes further prioritization into tiers, High and Low. For Bins 2, 3 and 4, the comment column provides some additional information related to individual impairments. Additionally, waterbodies with an asterisk indicate that no new data were assessed for that waterbody during the 2018 Integrated Report cycle.

A note about Indicator Bacteria. The term Indicator Bacteria includes more than one way of measuring bacteria contamination. Listings for Indicator Bacteria appear in both Bin 2 and Bin 3. Bin 2 includes listings that are based on the statewide E. coli water quality objective. Bin 3 includes listings based solely on the Basin Plan fecal coliform objective. Bin 3 fecal coliform Indicator Bacteria listings are for waterbodies where E. coli data shows no impairment or there is no E. coli data.

Priority Bin 1 Impairments – Impairments addressed by a TMDL or other action				
Waterbody Name	**Impairment**	**Prioritization Bin**	**Addressed By**	**Year Action Adopted**
Aspen Creek *	Metals	1 – Impairment Addressed	CERCLA (Leviathan)	2000
Bijou Park Creek *	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Nitrogen	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Turbidity	1 – Impairment Addressed	Lake Tahoe TMDL	2011
Blackwood Creek *	Nitrogen	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Sedimentation/Siltation	1 – Impairment Addressed	Blackwood Cr. TMDL	2008
Bronco Creek *	Sedimentation/Siltation	1 – Impairment Addressed	Truckee River TMDL	2009
Bryant Creek	Metals	1 – Impairment Addressed	CERCLA (Leviathan)	2000
Buckeye Creek	Indicator Bacteria	1 – Impairment Addressed	Bridgeport Waiver	2017
Cold Creek *	Nitrogen	1 – Impairment Addressed	Lake Tahoe TMDL	2011
East Walker River above Bridgeport Reservoir	Indicator Bacteria	1 – Impairment Addressed	Bridgeport Waiver	2017
General Creek *	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
Gray Creek *	Sedimentation/Siltation	1 – Impairment Addressed	Truckee River TMDL	2009
Heavenly Creek (source to USFS boundary)	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Sedimentation/Siltation	1 – Impairment Addressed	Heavenly TMDL	2002
Heavenly Creek (USFS boundary to Trout Cr) *	Sedimentation/Siltation	1 – Impairment Addressed	Lake Tahoe TMDL	2011
Indian Creek Reservoir *	DO	1 – Impairment Addressed	Indian Creek Reservoir TMDL	2003
	Phosphorus	1 – Impairment Addressed	Indian Creek Reservoir TMDL	2003
Leviathan Creek *	Metals	1 – Impairment Addressed	CERCLA (Leviathan)	2000
Mid-branch Buckeye Creek	Indicator Bacteria	1 – Impairment Addressed	Bridgeport Waiver	2017
Mono Lake *	Salinity/TDS/Chloride (all one listing)	1 – Impairment Addressed	Mono Lake Water Rights Decision	1994

Priority Bin 1 Impairments – Impairments addressed by a TMDL or other action				
Waterbody Name	**Impairment**	**Prioritization Bin**	**Addressed By**	**Year Action Adopted**
Robinson Creek (Twin Lakes to Hwy 395)	Indicator Bacteria	1 – Impairment Addressed	Bridgeport Waiver	2017
Robinson Creek (Hwy 395 to Bridgeport Res)	Indicator Bacteria	1 – Impairment Addressed	Bridgeport Waiver	2017
Searles Lake *	Salinity/TDS/Chlorides	1 – Impairment Addressed	Cleanup and Abatement Orders R6-00-54 and 54A1	2000
	Total Petroleum Hydrocarbons	1 – Impairment Addressed	Cleanup and Abatement Orders R6-00-54 and 54A1	2000
Snowshoe Thompson Ditch *	Phosphorus	1 – Impairment Addressed	South Tahoe PUD WDR	2004
	Total Kjeldahl Nitrogen	1 – Impairment Addressed	South Tahoe PUD WDR	2004
Squaw Creek *	Sedimentation	1 – Impairment Addressed	Squaw Creek TMDL	2007
Swauger Creek *	Indicator Bacteria	1 – Impairment Addressed	Bridgeport Waiver	2017
Tahoe, Lake *	Nitrogen	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Sedimentation	1 – Impairment Addressed	Lake Tahoe TMDL	2011
Trout Creek (above Hwy 50)	Turbidity	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Nitrogen	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
Trout Creek (below Hwy 50)*	Nitrogen	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
Truckee River	Sedimentation/Siltation	1 – Impairment Addressed	Truckee River TMDL	2009
Truckee River, Upper (above Christmas Valley)	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
Truckee River, Upper (below Christmas Valley)	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
Ward Creek	Turbidity	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Nitrogen	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Phosphorus	1 – Impairment Addressed	Lake Tahoe TMDL	2011
	Sedimentation/Siltation	1 – Impairment Addressed	Lake Tahoe TMDL	2011

Priority Bin 2 Impairments – Impairments confirmed that require action

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Priority Tier	Priority Criteria
Arrowhead Lake *	Mercury	2012	2 - Statewide Reservoir Mercury TMDL	High	Human Health
Bishop Creek, B-1 Drain	Indicator Bacteria	2018	2- Bishop Creek Vision Project	High	Human Health
Bishop Creek Canal	Indicator Bacteria	2018	2- Bishop Creek Vision Project	High	Human Health
Bishop Creek Forks (North and South Forks below bifurcation)	Indicator Bacteria	2018	2- Bishop Creek Vision Project	High	Human Health
Bodie Creek *	Mercury	2006	2 - Impairment confirmed	Low	Remote location, may be ephemeral
Bridgeport Reservoir	Mercury	2018	2 - Statewide Reservoir Mercury TMDL	High	OEHHA Fish Advisory, not on list for statewide TMDL
Carson River, West Fork (Headwaters to Hope Valley) (2018 listings due to re-segmentation of waterbody)	Total Kjeldahl Nitrogen	2018	2-WF Carson Vision Project	High	Under development
	Nitrate	2010	2-WF Carson Vision Project	High	Under development
	Phosphorus	2012	2-WF Carson Vision Project	High	Under development
	Sulfates	2012	2-WF Carson Vision Project	High	Under development
Carson River, West Fork (Hope Valley to Woodfords) (2018 listings due to re-segmentation of waterbody)	Phosphorus	2018	2-WF Carson Vision Project	High	Under development
	Total Kjeldahl Nitrogen	2018	2-WF Carson Vision Project	High	Under development
	Chloride	2012	2-WF Carson Vision Project	High	Under development
	Turbidity	2012	2-WF Carson Vision Project	High	Under development
	Nitrogen	2012	2-WF Carson Vision Project	High	Under development
	Nitrate	2012	2-WF Carson Vision Project	High	Under development
	Sulfates	2012	2-WF Carson Vision Project	High	Under development
	TDS	2012	2-WF Carson Vision Project	High	Under development

Priority Bin 2 Impairments – Impairments confirmed that require action

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Priority Tier	Priority Criteria
Carson River, West Fork (Woodfords to Stateline) (2018 listings due to re-segmentation of waterbody)	Iron	2018	2-WF Carson Vision Project	High	Under development
	Nitrogen	2018	2-WF Carson Vision Project	High	Under development
	Nitrate	2018	2-WF Carson Vision Project	High	Under development
	Sulfates	2018	2-WF Carson Vision Project	High	Under development
	TDS	2018	2-WF Carson Vision Project	High	Under development
	Total Kjeldahl Nitrogen	2018	2-WF Carson Vision Project	High	Under development
	Turbidity	2018	2-WF Carson Vision Project	High	Under development
	Indicator Bacteria	2000	2-WF Carson Vision Project	High	Under development
Crowley Lake	Mercury	2018	2 - Statewide Reservoir Mercury TMDL	High	Not currently on list for statewide TMDL
Donner Lake *	Arsenic	2012	2 - Impairment confirmed	High	Old listing, Need data
	Chlordane	2012	2 - Impairment confirmed	High	Old listing, Need data
	PCBs	1998	2 - Impairment confirmed	High	Old listing, Need data
Eagle Lake *	Nitrogen	1992	2 - Impairment confirmed	Medium	Old listing, Need data
	Phosphorus	1992	2 - Impairment confirmed	Medium	Old listing, Need data
Gregory, Lake	Mercury	2012	2 - Statewide Reservoir Mercury TMDL	High	Human Health
	Chlordane (tissue)	2018	2 - Impairment confirmed	High	Human Health
Griff Creek	Indicator Bacteria	2018	2 - Impairment confirmed	High	Human Health
Hot Creek (Mono Creek)	Mercury	2018	2 - Impairment confirmed	High	Human Health
Hot Creek (Walker)	Indicator Bacteria	2018	2 - Impairment confirmed	High	Human Health
Indian Creek *	Chloride	2012	2 - Impairment confirmed	Low	Old listing, Need data
Littlerock Reservoir *	Mercury	2012	2- Statewide Reservoir Mercury TMDL	High	Human Health
	PCBs	2012	2 - Impairment confirmed	High	Human Health

Priority Bin 2 Impairments – Impairments confirmed that require action					
Waterbody Name	**Impairment**	**Year Listed**	**Prioritization Bin**	**Priority Tier**	**Priority Criteria**
Mammoth Creek (Old Mammoth Rd. to Hwy 395)	Mercury	2006	2 - Impairment confirmed	High	Human Health
Mammoth Creek (Twin Lakes outlet to Old Mammoth Rd)	Mercury	2006	2 - Impairment confirmed	High	Human Health
Mammoth Creek, unnamed tributary *	Mercury	2010	2 - Impairment confirmed	High	Human Health
Markleeville Creek	Indicator Bacteria	2018	2 - Impairment confirmed	High	Human Health
Palmdale Lake	Dieldrin (Tissue)	2018	2 - Impairment confirmed	High	Human Health
Silverwood Lake *	Mercury	2012	2 - Statewide Reservoir Mercury TMDL	High	Human Health
	PCBs	2012	2 - Impairment confirmed	High	Human Health
Susan River (Susanville to Honey Lake)	Turbidity	2018	2 - Impairment confirmed	Medium	Aquatic Life
Topaz Lake	Mercury	2012	2 - Statewide Reservoir Mercury TMDL	High	Human Health
Twin Lake, Upper *	Mercury	2012	2 - Statewide Reservoir Mercury TMDL	High	Human Health

Priority Bin 3 Impairments – Additional Information Needed

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Comments
Bijou Park Creek *	Iron	2012	3 - More info needed	Old listing, may be natural sources
	Oil and Grease	2012	3 - More info needed	Old data
Blackwood Creek *	Iron	2002	3 - More info needed	Old listing, no data
Bridgeport Reservoir	Nitrogen	1992	3 - More info needed	Old listing
	Phosphorus	1992	3 - More info needed	Old listing
	Sedimentation/Siltation	1992	3 - More info needed	Old listing, no data
Carson River, East Fork	Indicator Bacteria	2018	3 - More info needed	Additional data needed
	Dissolved Oxygen	2018	3 - More info needed	Low number of samples
	Turbidity	2018	3 - More info needed	Low number of samples
Cedar Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Convict Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Crab Creek	Dissolved oxygen	2018	3 - More info needed	Better temporal representation needed
Crowley Lake	Ammonia	2006	3 - More info needed	Old listing, no new data
	Dissolved Oxygen	2006	3 - More info needed	Old data, no new data
Deep Creek	Dissolved Oxygen	2018	3 - More info needed	Low number of samples
	Phosphate	2018	3 - More info needed	Low number of samples
	Sodium	2018	3 - More info needed	May be natural sources
	Sulfates	2018	3 - More info needed	May be natural sources
	TDS	2018	3 - More info needed	Additional data needed
Dressler Ditch *	Turbidity	2012	3 - More info needed	Old listing
East Tributary Griff Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
East Walker River below Bridgeport Reservoir	Arsenic	2018	3 - More info needed	Low number of samples
	Nitrogen	2018	3 - More info needed	Low number of samples
	Dissolved Oxygen	2018	3 - More info needed	Low number of samples
	Phosphorus	2018	3 - More info needed	Low number of samples
	Turbidity	2010	3 - More info needed	Low number of samples
	Sedimentation/Siltation	2002	3 - More info needed	Old listing, no new data

Priority Bin 3 Impairments – Additional Information Needed

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Comments
General Creek *	Iron	2002	3 - More info needed	Old listing, no new data
Haiwee Res *	Copper	1998	3 - More info needed	Old listing, no new data
Heavenly Creek (source to USFS boundary)	Benthic Community Effects	2018	3 - More info needed	Low number of samples
	Chloride	2002	3 - More info needed	Old listing
Heavenly Creek (USFS boundary to Trout Cr) *	Chloride	2002	3 - More info needed	Old listing
Hidden Valley Creek *	Phosphorus	2012	3 - More info needed	Old listing, no new data
Hilton Creek	Dissolved Oxygen	2010	3 - More info needed	Old data
Horseshoe Meadow Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Horton Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Hot Creek (Mono Creek)	Boron	2018	3 - More info needed	May be natural sources
	Chloride	2018	3 - More info needed	May be natural sources
	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Hot Creek, unknown tributary	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Hot Springs Creek	TDS	2018	3 - More info needed	May be natural sources
Indian Creek *	Indicator Bacteria	2002	3 - More info needed	Additional data needed
	DO	2012	3 - More info needed	Old Listing
Jensen Slu	Indicator Bacteria	2018	3 - More info needed	Additional data needed
LA Aqueduct Diversion	Turbidity	2018	3 - More info needed	Low number of samples
Little Truckee River	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Little Walker River	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Littlerock Reservoir *	Manganese	No	3 - More info needed	Old Listing
Lone Pine Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Long Valley Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Mammoth Creek (Old Mammoth Rd. to Hwy 395)	Indicator Bacteria	2018	3 - More info needed	Additional data needed
	Dissolved Oxygen	2018	3 - More info needed	Low number of samples
	Phosphate	2018	3 - More info needed	May be natural sources

Priority Bin 3 Impairments – Additional Information Needed

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Comments
	Manganese	2012	3 - More info needed	May be natural sources
Mammoth Creek (Twin Lakes outlet to Old Mammoth Rd)	Manganese	2012	3 - More info needed	Old Listing
Mammoth Creek, unnamed tributary *	Arsenic	2012	3 - More info needed	Old Listing, may be natural sources
Markleeville Creek	TDS	2018	3 - More info needed	Additional data needed
Martis Creek	Phosphorus	2018	3 - More info needed	May be natural sources
McGee Creek (Mono County)	Phosphate	2018	3 - More info needed	Additional data needed
Milberry Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Mill creek (Modoc) *	TDS	2012	3 - More info needed	Additional data needed
Mill Creek (tributary to W. Walker River)	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Mojave River (Forks Reservoir to Upper Narrows	Sodium	2018	3 - More info needed	Low number of samples
	Sulfates	2018	3 - More info needed	Additional data needed
Mojave River (Upper to Lower Narrows)	Manganese	2018	3 - More info needed	Low number of samples
	Dissolved Oxygen	2018	3 - More info needed	Low number of samples
Monitor Creek *	Aluminum	2002	3 - More info needed	Old listing, no new data
	Iron	2002	3 - More info needed	Old listing, no new data
	Manganese	2002	3 - More info needed	Old listing, no new data
	Sulfates	2002	3 - More info needed	Old listing, no new data
	Silver	2002	3 - More info needed	Old listing, no new data
	TDS	2002	3 - More info needed	Old listing, no new data
Owens River (Long HA)	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Owens River (Upper)	Indicator Bacteria	2018	3 - More info needed	Additional data needed
	Sodium	2018	3 - More info needed	Low number of samples
Pine Creek (Inyo County)	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Pleasant Valley Reservoir *	Organic Enrichment, DO	1996	3 - More info needed	Old listing, no new data
Red Lake Creek	TDS	2018	3 - More info needed	Additional data needed

Priority Bin 3 Impairments – Additional Information Needed

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Comments
Reversed Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Robinson Creek (Barney Lake to Twin Lakes)	Nitrogen	2018	3 - More info needed	Additional data needed
Round Valley Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Sardine Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Sheep Creek	Dissolved Oxygen	2018	3 - More info needed	Low number of samples
	Nitrate	2010	3 - More info needed	Additional data needed
Spainhower Anchor Ranch Ditch	Turbidity	2018	3 - More info needed	Review waterbody mapping
Susan River (Headwaters to Willard Creek)	Phosphorus	2018	3 - More info needed	Additional data needed
Susan River (Willard Creek to Susanville)	Indicator Bacteria	2018	3 - More info needed	Additional data needed
	Nitrogen	2018	3 - More info needed	Additional data needed
	Turbidity	2018	3 - More info needed	Better temporal representation needed
	Unknown toxicity	1998	3 - More info needed	Low number of samples
Susan River (Susanville to Honey Lake) (2018 listings due to re-segmentation of waterbody)	Boron	2018	3 - More info needed	Additional data needed
	Indicator Bacteria	2018	3 - More info needed	Additional data needed
	Nitrogen	2018	3 - More info needed	Additional data needed
	Sodium	2018	3 - More info needed	Low number of samples
	Sulfates	2018	3 - More info needed	Additional data needed
	Toxicity	1998	3 - More info needed	Low number of samples
Swauger Creek *	Phosphorus	2006	3 - More info needed	Old listing, no new data
Tahoe Keys Sailing Lagoon *	pH	2012	3 - More info needed	Old listing, no new data
Tallac Creek (blw Hwy 89) *	Indicator Bacteria	2002	3 - More info needed	Additional data needed
Topaz Lake	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Tributary to Mill Creek	TDS	2018	3 - More info needed	Additional data needed
Trout Creek (above Hwy 50)	Iron	2002	3 - More info needed	Old listing, no new data
Trout Creek (blw Hwy 50) *	Indicator Bacteria	2002	3 - More info needed	Additional data needed

Priority Bin 3 Impairments – Additional Information Needed

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Comments
	Iron	2002	3 - More info needed	Old listing
Truckee River	Nitrate	2018	3 - More info needed	Low number of samples
Truckee River, Upper (above Christmas Valley)	Iron	2002	3 - More info needed	Old listing
Truckee River, Upper (below Christmas Valley)	Indicator Bacteria	2018	3 - More info needed	Additional data needed
	Iron	2002	3 - More info needed	Old listing
Virginia Creek	Indicator Bacteria	2018	3 - More info needed	Additional data needed
Ward Creek	Iron	2002	3 - More info needed	Old listing, no new data
West Fork Mojave River below Silverwood	Sodium	2018	3 - More info needed	Low number of samples
	Sulfates	2018	3 - More info needed	Low number of samples
	TDS	2018	3 - More info needed	Additional data needed
West Walker River	Turbidity	2018	3 - More info needed	Low number of samples
Wolf Creek (Alpine County)	Indicator Bacteria	2018	3 - More info needed	Additional data needed
	Sedimentation/Siltation	1998	3 - More info needed	Old listing, no new data

Priority Bin 4 Impairments – Basin Planning Action Required

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Priority Tier	Comments
Amargosa River (Nevada to Tecopa) *	Arsenic	2010	4 - Impairment confirmed	Low	Old listing, may be natural sources
Amargosa River (Tecopa to Upper Canyon) *	Arsenic	2010	4 - Impairment confirmed	Low	Old listing, may be natural sources
Amargosa R (Willow Cr to Badwater) *	Arsenic	2012	4 - Impairment confirmed	Low	Old listing, may be natural sources
Bidwell Creek *	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Carson River, East Fork	Boron	2012	4 - Impairment confirmed	Low	Recommend standards action
	Phosphorus	2012	4 - Impairment confirmed	Low	Recommend standards action
	Sulfates	2012	4 - Impairment confirmed	Low	Recommend standards action
	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Cedar Creek	Chloride	2018	4 - Impairment confirmed	Low	Recommend standards action
	TDS	2018	4 - Impairment confirmed	High	Recommend standards action
Crab Creek	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Deep Creek	Chloride	2018	4 - Impairment confirmed	Low	Recommend standards action
East Walker River below Bridgeport Reservoir	Manganese	2010	4 - Impairment confirmed	Low	Recommend standards action

Priority Bin 4 Impairments – Basin Planning Action Required

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Priority Tier	Comments
Hilton Creek	TDS	2018	4 - Impairment confirmed	High	Recommend standards action
Holcomb Creek	Fluoride	2018	4 - Impairment confirmed	Low	Recommend standards action
	Sulfates	2018	4 - Impairment confirmed	Low	Recommend standards action
	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Honey Lake *	Arsenic	1998	4 - Impairment confirmed	Low	May be natural sources
	Salinity/TDS/ Chlorides	1998	4 - Impairment confirmed	Low	May be natural sources
Honey Lake Area Wetlands *	Metals	1998	4 - Impairment confirmed	Low	May be natural sources, old listing without data
Honey Lake Wildfowl Management Ponds *	Metals	1992	4 - Impairment confirmed	Low	May be natural sources, old listing without data
	Salinity/TDS/ Chlorides	1998	4 - Impairment confirmed	Low	May be natural sources
	Trace Elements	1996	4 - Impairment confirmed	Low	May be natural sources
Mammoth Cr (Headwaters to Twin Lakes outlet)	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Mammoth Creek (Old Mammoth Rd. to Hwy 395)	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Mammoth Creek (Twin Lakes outlet to Old Mammoth Rd)	TDS	2018	4 - Impairment confirmed	High	Recommend standards action

Priority Bin 4 Impairments – Basin Planning Action Required

Waterbody Name	Impairment	Year Listed	Prioritization Bin	Priority Tier	Comments
Mesquite Springs *	Arsenic	2008	4 - Impairment confirmed	Low	May be natural sources, old listing without data
	Boron	2008	4 - Impairment confirmed	Low	May be natural sources, old listing without data
Mojave River (Forks Reservoir to Upper Narrows	Fluoride	2008	4 - Impairment confirmed	Low	May be natural sources, Recommend standards action
Mojave River (Upper to Lower Narrows)	Sodium	2018	4 - Impairment confirmed	Low	Recommend standards action
	Fluoride	2010	4 - Impairment confirmed	Low	May be natural sources, Recommend standards action
	Sulfates	2010	4 - Impairment confirmed	Low	May be natural sources, Recommend standards action
	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Rock Creek (Trib to Owens River)	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Sheep Creek	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Susan River (Headwaters to Willard Creek)	Chloride	2018	4 - Impairment confirmed	High	Recommend standards action
	Nitrogen	2010	4 - Impairment confirmed	High	Recommend standards action
	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
Susan River (Willard Creek to Susanville)	TDS	2010	4 - Impairment confirmed	High	Recommend standards action

Priority Bin 4 Impairments – Basin Planning Action Required					
Waterbody Name	**Impairment**	**Year Listed**	**Prioritization Bin**	**Priority Tier**	**Comments**
Susan River (Susanville to Honey Lake)	TDS	2010	4 - Impairment confirmed	High	Recommend standards action
West Fork Mojave River below Silverwood	Chloride	2018	4 - Impairment confirmed	Low	Recommend standards action
West Walker River	Phosphorus	2018	4 - Impairment confirmed	Low	Recommend standards action
	TDS	2018	4 - Impairment confirmed	High	Recommend standards action
	Boron	2012	4 - Impairment confirmed	Low	May be natural sources, Recommend standards action
	Chloride	2012	4 - Impairment confirmed	Low	Recommend standards action

ENCLOSURE 2

Prioritizing the Lahontan Region 303(d) List

Jennifer Watts, Ph.D.
Environmental Scientist

Item 5
Lahontan Water Board
June 10, 2020

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Overview of Presentation

- Review contents of 303(d) List
- Updates to the Prioritization Strategy
- Review Definition of Bins
- Present Summary of Prioritized Impairments
- Comments or Questions

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Lahontan 303(d) List

- States are required to identify surface waters that do not meet water quality objectives (WQOs)
- CA waterbody assessments are conducted in accordance with the State Water Board's Water Quality Control Policy for Developing California's CWA Section 303(d) List
- Waters not attaining WQOs are impaired and are identified in the **303(d) List** or "List of Impaired Waterbodies"

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2018 updates to the 303(d) List

- 2012 303(d) List:
  - 157 waterbody/pollutant combinations (i.e., individual impairments)
  - 77 Waterbodies impaired
- 2018 303(d) List:
  - 257 individual impairments
  - 126 Waterbodies impaired
  - 42 waterbodies with no new data this cycle

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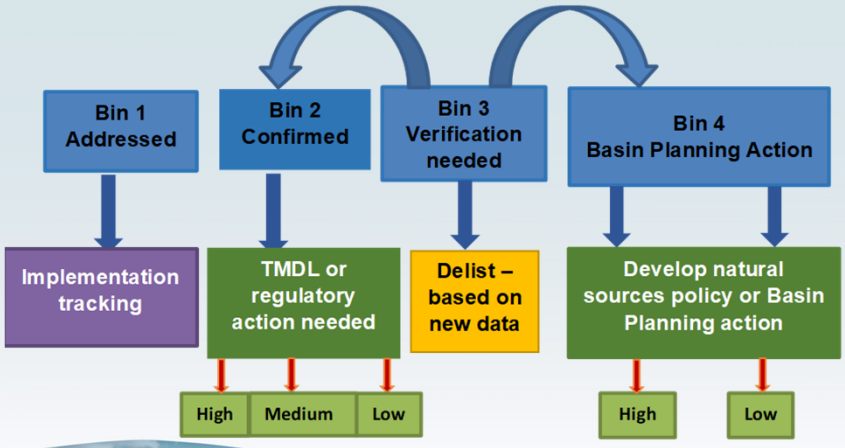
2020 Prioritization Strategy



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Bin 1 Impairments

Impairments addressed by an adopted TMDL or TMDL alternative. Examples include:

- Lake Tahoe TMDL – addresses nutrient and sediment impairments
- Leviathan Mine CERCLA Clean-up – addresses assorted metals impairments in Aspen, Bryant, and Leviathan Creeks

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Bin 2 Impairments

Impairment considered confirmed and requires TMDL or alternative action

- Assigned to high, medium or low priority tiers
- High priority for:
  - Human Health effects
  - Impacts on Aquatic Life
  - Potential impacts to disadvantaged communities

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Bin 3 Impairments

Impairments that require additional information

- Small data sets may not adequately characterize water quality; more data is needed prior to devoting staff resources
  - Listing policy requires only two exceedances to list for toxic pollutants
  - Example: New Susan River Total Nitrogen listed based on three exceedances

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Bin 4 Impairments

Impairment identified for possible basin planning action

- E.g. revised WQO, site specific objectives, or other non-TMDL basin planning action
- Example: Mojave River 303(d) listings for sulfate and fluoride
  - Local geology likely contributes to these impairments

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Summary of Prioritization Results

	Bin 1 Addressed	Bin 2 Confirmed	Bin 3 More info	Bin 4 Basin Planning
Number of Waterbodies	29	27	72	26
Number of Impairments	45	50	116	45
EPA Vision Projects Impairments		23		

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Additional Prioritization Results

Bin 1

31 Impairments addressed by 6 adopted TMDLs

14 Impairments addressed by non-TMDL actions

Bin 2

11 High Priority Impairments require action

- Potential Human Health effects

Bin 4

Example High Priority Impairments – 16 Waterbodies listed for TDS

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Thank You

Questions or comments?

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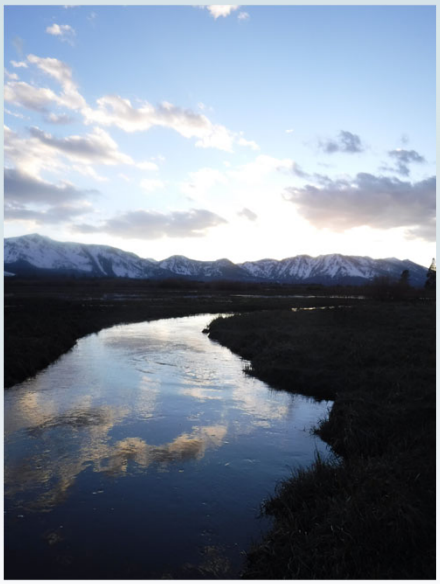

Trout Creek above Lake Tahoe

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