

# Update on Proposed Water Quality Standards



## **Background**

- Nevada Division of Environmental Protection (NDEP), Bureau of Water Quality Planning, provided notice of intent to revise water quality standards for Las Vegas Wash and Lake Mead in May 2019
- Held public workshops in June 2019

## Background

- Stormwater permittees provided comments on July 1, 2019
  - NDEP provided a written response on July 19, 2019
- Permittees met with NDEP Bureau of Water Quality Planning in Carson City on August 15, 2019
  - NDEP provided a written response to meeting on September 5, 2019
- Nevada State Environmental Commission hearing was held on October 2, 2019

## Background

Proposed water quality standards included:

- Designating the inner Las Vegas Bay for contact recreation
- Setting E. coli criteria for the inner Las Vegas Bay
- Applying E. coli criteria to wet weather in the Las Vegas Wash
- Setting a state-wide standard for selenium

## **Bacteria in the Inner Bay**

There are high levels of bacteria in the inner bay

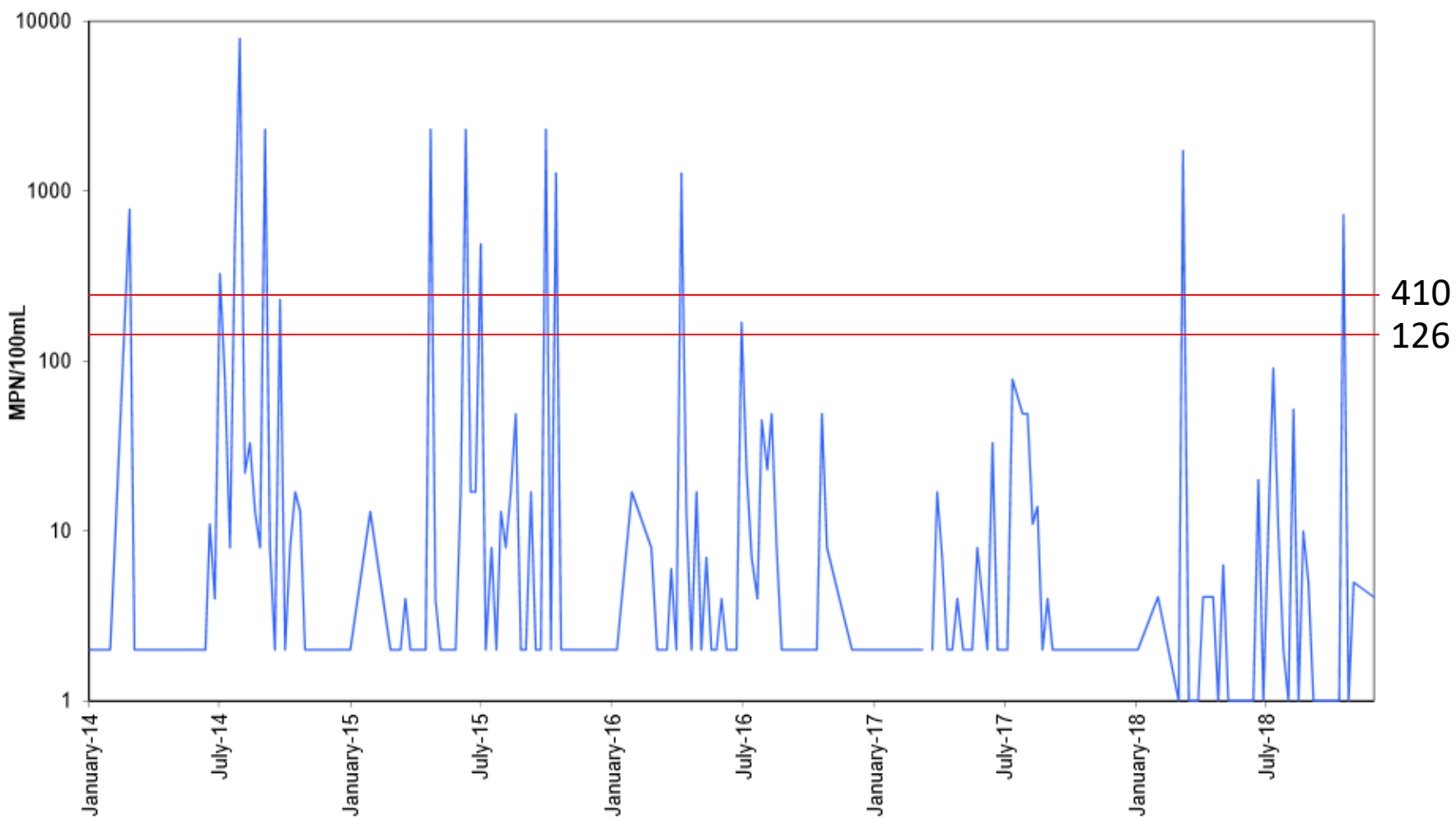
- Birds in the Las Vegas Wash and inner bay contribute bacteria
- Stormwater flows also contribute significantly during storm events
- Inner bay levels routinely exceed the proposed standard
- Inner bay is not safe for swimming

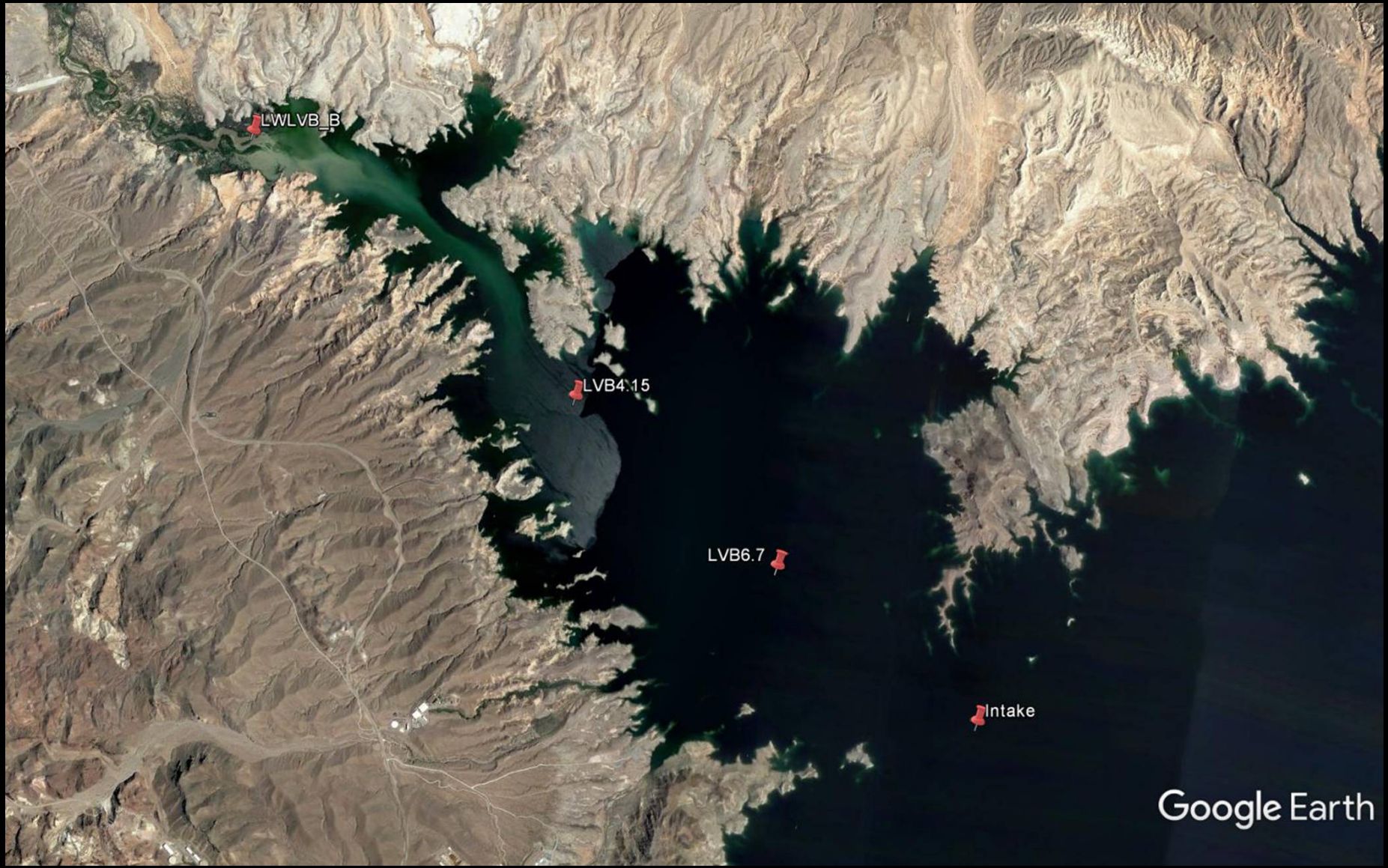
## **Bacteria in the Inner Bay**

Proposed E. coli criteria:

- 30-day geometric mean of 126 cfu/100 mL
- Single value maximum of 410 cfu/100 mL

### LWLVB1.2 Epilimnion E. coli





Google Earth



## **Bacteria in the Inner Bay**

Permittees argued that:

- The birds are an important part of the environment
- No reasonable way to implement the standard
- Clean Water Act requires achievement and a TMDL if necessary
- Could result in 303(d) listing, TMDL, and possible unreasonable implementation requirements

## **Bacteria in the Inner Bay**

Permittees argued that:

- Criteria won't protect anything if they can't be achieved
- Communicates to the public that the inner bay is safe for swimming
- NDEP has no plan to implement the criteria (and no idea how)
- Once the standard is established it is very hard to remove

NDEP proposed designating the Las Vegas Wash for noncontact recreation:

- Las Vegas Wash is unsafe for recreation during wet weather
- Permittees requested a footnote be added that specifically excluded the standard from applying during wet weather events

## **E. Coli in the Las Vegas Wash**

NDEP argued a footnote was unnecessary:

- Referenced Nevada Administrative Code 445A.121
- “Recognizes that water quality standards may be exceeded during **extreme** flow events which are outside of natural or base-flow conditions, but that such exceedances should not be considered a violation of the standards” (emph. added).
- What constitutes an extreme event?

## E. Coli in the Las Vegas Wash

## Selenium

There are high levels of selenium in Las Vegas Valley soils

- Dissolves in groundwater
- Surfacing groundwater enters tributaries
- Very little dilution in the tributaries
- High selenium levels in the tributaries
  - Much higher than the existing or proposed criteria

## Selenium

NDEP is proposing a new state-wide standard for selenium:

- 30-day average, lentic (lake) water - 1.9  $\mu\text{g/L}$
- 30-day average, lotic (river) water - 3.9  $\mu\text{g/L}$

Based on historical data for Las Vegas Wash and Lake Mead, would likely exceed the criteria

**State  
Environmental  
Commission**

Held a hearing on NDEPs proposed water quality standards on October 2, 2019

- Stormwater permittees submitted written comments opposing the aforementioned elements of the proposed standards
- Participated in the hearing

**State  
Environmental  
Commission**

Contact recreation in the inner Las Vegas Bay:

- SEC declined to approve establishing contact recreation as a beneficial use in the inner Las Vegas Bay
- SEC also declined to approve establishing an E. coli criteria for the inner Las Vegas Bay

Commissioners expressed concern about creating the impression among the public that this area is safe for swimming



**State  
Environmental  
Commission**

Selenium standard:

- NDEP requested that the item for selenium be tabled until the next SEC meeting
- NDEP intends to propose the new state-wide standard for selenium for all of Nevada except the Las Vegas Wash
- NDEP will work with the local jurisdictions over the next three years to establish site-specific standards for the Las Vegas Wash and tributaries



**Questions?**