CALISTOGA PLANNING COMMISSION
STAFF REPORT

TO	Chair Coates and Members of the Planning Commission
FROM	Lynn Goldberg, Planning & Building Director Derek Rayner, Public Works Director
MEETING DATE	January 22, 2019
SUBJECT	**Infrastructure Element Update (GPA 2019-1)**

ITEM

Consideration of the draft updated Infrastructure Element of the Calistoga General Plan

BACKGROUND

The Infrastructure Element of the Calistoga General Plan provides information and policy guidance related to utility infrastructure in Calistoga and its Planning Area.

The Element covers the following topics:

- Water Supply and Service
- Wastewater Collection and Treatment
- Stormwater Collection and Discharge

The current Infrastructure Element was adopted in 2003. Because significant changes have occurred to the city's infrastructure systems since its adoption, as well as to federal, state and regional regulations, the entire Element has been reviewed and updated by Planning and Public Works Department staff.

SUMMARY OF SIGNIFICANT REVISIONS

<u>Water Supply and Service</u>

The demand for water during an average normal year has significantly decreased from 1,025 acre-feet per year (afy) in 2002, to 656 afy in 2019. This decrease can be attributed primarily to water conservation related to drought and rate increases). It can also be attributed to expanded use of recycled wastewater for irrigation (increasing from approximately 120 afy to 320 afy), and the enforcement of Stage I Water Emergency conservation measures. The 2019 water demand is only 55 percent of the amount projected for the year 2015 by the 2003 Infrastructure Element.

Water available to serve new demand ranges from 178 to 504 afy, after accounting for standby customers, paid allocations, projects with development agreements (i.e., Calistoga Hills and Silver Rose) and bottling works unused obligations; as well as potential fluctuations in supply from the State Water Project and North Bay Aqueduct. There is sufficient water supply to accommodate current and potential demand (as shown in Element Tables I-2 and I-3) through 2035, with water remaining.

Many changes to the city's water infrastructure have occurred since adoption of the original Infrastructure Element. For example, the 1.5-million-gallon Mt. Washington water storage tank has been constructed, and the 1-million gallon Feige tank and two water delivery pump stations replaced. The development of a backflow prevention program with required annual testing has reduced the intrusion of contaminated water into the potable water supply.

Wastewater Treatment and Effluent Quality

The 2003 Infrastructure Element reported that the wastewater treatment plant had a dry-weather capacity of 0.70 million gallons per day (mgd), with an average dry-weather flow of 0.67 mgd. Since then, the plant's capacity has been increased to 0.84 mgd, and the average dry-weather flow has decreased to 0.44 mgd. The reduced flows are primarily attributable to the decrease in water use describe above; replacements of sewer trunk main sections and improvements to two lift stations; and replacement of some sewer collection pipes.

Wastewater treatment capacity remaining after accounting for standby customers, paid allocations, development agreements, and bottling works unused obligations is approximately .17 mgd. There is sufficient treatment capacity to accommodate current and potential demand (as shown in Element Tables I-2 and I-3) through 2035, with capacity remaining.

The City has been subject to a Cease and Desist Order (CDO) imposed by the San Francisco Regional Water Quality Control Board several years after the adoption of the 2003 Element. This order requires a reduction in disinfection by-products known as trihalomethanes (THMs). It also requires the elimination of bypasses from the treated wastewater spray fields, reduction of inflow and infiltration, measurement of source pollution (e.g., antimony, boron) and installation of metering on geothermal dischargers.

In response to the CDO, the City built a 16MG recycle water storage pond that has to date eliminated bypasses from occurring, changed its disinfection from chlorine to chloramines to be compliant with THM levels, installed geothermal discharge meters on significant dischargers, and done source testing on constituents of boron and antimony.

Modern facilities are required to use closed-loop heat exchange systems that re-inject geothermal water into the geothermal aquifer, reducing geothermal discharge to the sewer system. The geothermal meters will also encourage the conservation of discharge. Mud bath businesses were educated on source pollutants encouraged to utilize different mud materials that had significantly lower antimony levels and new resorts have been required to install mud separators to further reduce this constituent. It is anticipated over time the reduction of geothermal water and mud material source reduction will further reduce boron and antimony in the city's sewer system. To address inflow and infiltration, the City smoke tested and repaired inflow point sources, oversaw the replacement of a mile-long trunk line and various sewer lines, and began developing a sewer model.

DISCUSSION

The updated Infrastructure Element includes goals, objectives and actions intended to continue the City's efforts of maintaining and improving its utility systems. The Element demonstrates that there is adequate water supply and wastewater treatment capacity to serve potential development until at least 2035.

The General Plan's 2003 Geothermal Element was adopted at a time when it was common practice for users of geothermal water to directly discharge the waters to the storm drain and/or the wastewater sewer systems for disposal. Therefore, the updated Infrastructure Element incorporates relevant information from the Geothermal Element, with the intent that the latter will be rescinded upon adoption of the updated Infrastructure Element.

ENVIRONMENTAL REVIEW

Under Section 15061(b)(3) of the California Environmental Quality Act (CEQA) Guidelines, the proposed updated Infrastructure Element is not subject to CEQA because it can be seen with certainty that they could not have a significant effect on the environment.

RECOMMENDATION

Staff recommends that after conducting a public hearing, the Planning Commission adopt a resolution recommending to the City Council adoption of the updated Infrastructure Element of the Calistoga General Plan and rescission of the Geothermal Element.

ATTACHMENTS

1. Draft resolution
2. Updated Infrastructure Element (distributed under separate cover)