

# City of Calistoga Staff Report

**TO:** Honorable Mayor and City Council  
**FROM:** Michael Kirn, Public Works Director/City Engineer  
**DATE:** January 17, 2017  
**SUBJECT:** Consideration of Resolution in Support of a Geothermal Grant Application by Golden Haven Hot Springs for Construction of a Geothermal Heat Exchange and ReInjection Well Project

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Approval for Forwarding:



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Dylan Feik, City Manager

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**ISSUE:** Consideration of Resolution in support of a geothermal grant application by Golden Haven Hot Springs for construction of a geothermal heat exchange and reinjection well project.

**RECOMMENDATION:** Adopt Resolution.

**BACKGROUND/DISCUSSION:** April 13, 2016 the San Francisco Bay Regional Water Quality Control Board adopted Order No. R2-2016-0018 reissuing NPDES Permit No. CA0037966 and adopted Order No. R2-2016-0019 amending Cease and Desist Order No. R2-2014-0043. Both of these Orders establish effluent limits for certain constituents, including boron and antimony, and for the City to prepare of a pollution prevention plan for antimony and an antimony source control plan.

Geothermal water and energy is indigenous to Calistoga, and its careful development has provided numerous benefits to the local community in the form of jobs, improved local tax revenue. However antimony and boron are naturally occurring in geothermal water and certain spa waste products and the discharge of these results in elevated levels of both constituents in the City's final effluent.

The use of geothermal heat exchangers and reinjection wells is start of the art operations and has been shown to significantly reduce antimony and boron

23 concentrations in wastewater discharged by spas and resorts who have constructed  
24 these types of facilities. An example of this technology is the Solage Resort, which  
25 has constructed and operates a geothermal heat exchanger and reinjection well.  
26 Their wastewater discharge contains very little boron or antimony, which  
27 demonstrates the success in point source reduction of these minerals.

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29 Golden Haven Hot Springs is proposing to construct a similar project at their resort  
30 and is preparing a grant application to the California Energy Commission under the  
31 Geothermal Grant and Loan Program. After meeting with them Public Works staff  
32 believes projects of this type will assist in our ability to comply with our permit limits  
33 and Cease and Desist Order and supports the efforts of Golden Haven. They have  
34 indicated that a resolution of support from the City would make their application  
35 more competitive and increases the probability that the project would be  
36 constructed.

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38 **ENVIRONMENTAL ANALYSIS:** The adoption of the recommended resolution is  
39 general policy and procedure and is not a Project under CEQA. Section 15378(b)  
40 (2) of CEQA provides that a "...Project does not include: Continuing administrative  
41 or maintenance activities such as ...general policy and procedure making."

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43 **FISCAL IMPACT:** There will be no impact to City. All matching costs associated  
44 with the proposed project will be borne by Golden Haven Hot Springs.

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46 **ATTACHMENTS:**  
47 1. Draft Resolution

## RESOLUTION NO. 2017-XXX

**RESOLUTION IN SUPPORT OF A GEOTHERMAL GRANT APPLICATION BY  
GOLDEN HAVEN HOT SPRINGS FOR CONSTRUCTION OF A GEOTHERMAL  
HEAT EXCHANGE AND REINJECTION WELL PROJECT**

**WHEREAS**, the City of Calistoga recognizes that it is in the interest of the regional, state, and national economy to develop alternative energy resources to reduce greenhouse gas emissions; and

**WHEREAS**, geothermal energy is indigenous to Calistoga, and its careful development has provided numerous benefits to the local community in the form of jobs, improved local tax revenue and reduced fuel costs; and

**WHEREAS**, funds are available from the California Energy Commission Geothermal Grant and Loan Program (GRDA) for grants and loans to private entities for geothermal-related activities; and

**WHEREAS**, Calistoga owns and operates the City's wastewater treatment facility (WWTF) which treats wastewater discharged by businesses and residents, including geothermal water from spas and resorts like Golden Haven Hot Springs; and

**WHEREAS**, geothermal water and certain spa waste products contain naturally occurring minerals and elements including boron and antimony; and

**WHEREAS**, on April 13, 2016 the San Francisco Bay Regional Water Quality Control Board adopted Order No. R2-2016-0018 reissuing NPDES Permit No. CA0037966 which includes effluent limits for certain constituents, including boron and antimony; and

**WHEREAS**, on April 13, 2016 the San Francisco Bay Regional Water Quality Control Board adopted Order No. R2-2016-0019 amending Cease and Desist Order No. R2-2014-0043 which requires the City to comply with effluent limits for antimony including preparation of a pollution prevention plan for antimony, and an antimony source control plan; and

**WHEREAS**, the use of geothermal heat exchangers and reinjection wells is start of the art operations and has been shown to significantly reduce antimony and boron concentrations in wastewater discharged by spas and resorts who have constructed these types of facilities; and

**WHEREAS**, the City has met with representatives from Golden Haven Hot Springs and determined that the proposed geothermal heat exchanger and reinjection well will have a positive impact on the City's ability to meet permit effluent limitations for boron and antimony at the WWTP.

**NOW, THEREFORE BE IT RESOLVED** that the City Council of the City of Calistoga hereby supports the grant application by Golden Haven Hot Springs and expresses their

47 gratitude to Golden Haven Hot Springs for taking the initiative and willingness to expend their  
48 own financial resources on the heat exchange and reinjection well project.

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50 **PASSED, APPROVED, AND ADOPTED** by the City Council of the City of Calistoga at  
51 a regular meeting held this **17th day of January, 2017**, by the following vote:

- 52
- 53 **AYES:**
- 54 **NOES:**
- 55 **ABSTAIN:**
- 56 **ABSENT:**
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59 \_\_\_\_\_  
60 **CHRIS CANNING, Mayor**

61 **ATTEST:**

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63 \_\_\_\_\_  
64 **MELISSA VELASQUEZ, Deputy City Clerk**

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71 NOW, therefore, be it resolved that the **(insert name governing body of the local**  
72 **governmental jurisdiction)** authorizes the submittal of the application to the California Energy  
73 Commission for funds to execute the **(insert name of project)**.

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75 Be it also resolved, if recommended for funding by the California Energy Commission, the  
76 **(insert name of governing body of the local governmental jurisdiction)** authorizes **(insert**  
77 **name of local governmental jurisdiction)** to accept a loan or grant award up to the amount  
78 of this application for \$ **(insert requested amount)**, and, that **(insert job title of designated**  
79 **project director/authorized representative)** acting for the **(insert name local governmental**  
80 **jurisdiction)** is hereby authorized and empowered to execute in the name of **(insert name**  
81 **local governmental jurisdiction)**, all necessary contracts and agreements, and amendments  
82 hereto, to implement and carry out the purposes specified in the application.

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84 The foregoing resolution was passed by the **(insert name governing body of the local**  
85 **governmental jurisdiction)** this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.  
86 Effective \_\_\_\_\_, 20\_\_.

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89 **ATTEST:**

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91 Signed \_\_\_\_\_ Date: \_\_\_\_\_

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93 Title: \_\_\_\_\_