

## STAFF REPORT

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**Date:** October 25, 2023

**To:** Mayor and City Council

**Thru:** Doug Thornley, City Manager

**Subject:** Staff Report (For Possible Action): Presentation, discussion and potential approval of Geothermal Lease Agreement with Avalon Geothermal to drill a well at 240 West Moana Lane, Reno Nevada and to use the geothermal resource within the Public Utility Commission approved Service Territory, and direction to staff and legal to finalize the easement terms for the underground pipe and Heat Service Agreement and authorize the City Manager to sign the easement and Heat Service Agreement. [Ward 2]

**From:** Kerrie Koski, Director of Public Works and City Engineer

**Department:** Public Works

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**Summary:**

Avalon, a regulated geothermal utility, approached the City of Reno to drill a geothermal well on City of Reno property. This would result in revenue from royalties for resource rights, based on gross revenues, as well as lease payments. Pursuing an agreement with Avalon aligns with the Council's Strategic Plan. Staff recommends Council approval of the Geothermal Lease Agreement, and direction to staff and legal to finalize the easement terms for the underground pipe and Heat Service Agreement and authorization for the City Manager to sign the easement and Heat Service Agreement. Future opportunities with Avalon include franchise fees and reduced cost for heat at the Moana Springs Community Aquatics and Fitness Center after geothermal production is in operation.

**Alignment with Strategic Plan:**

Fiscal Sustainability

Economic and Community Development

Infrastructure, Climate Change, and Environmental Sustainability

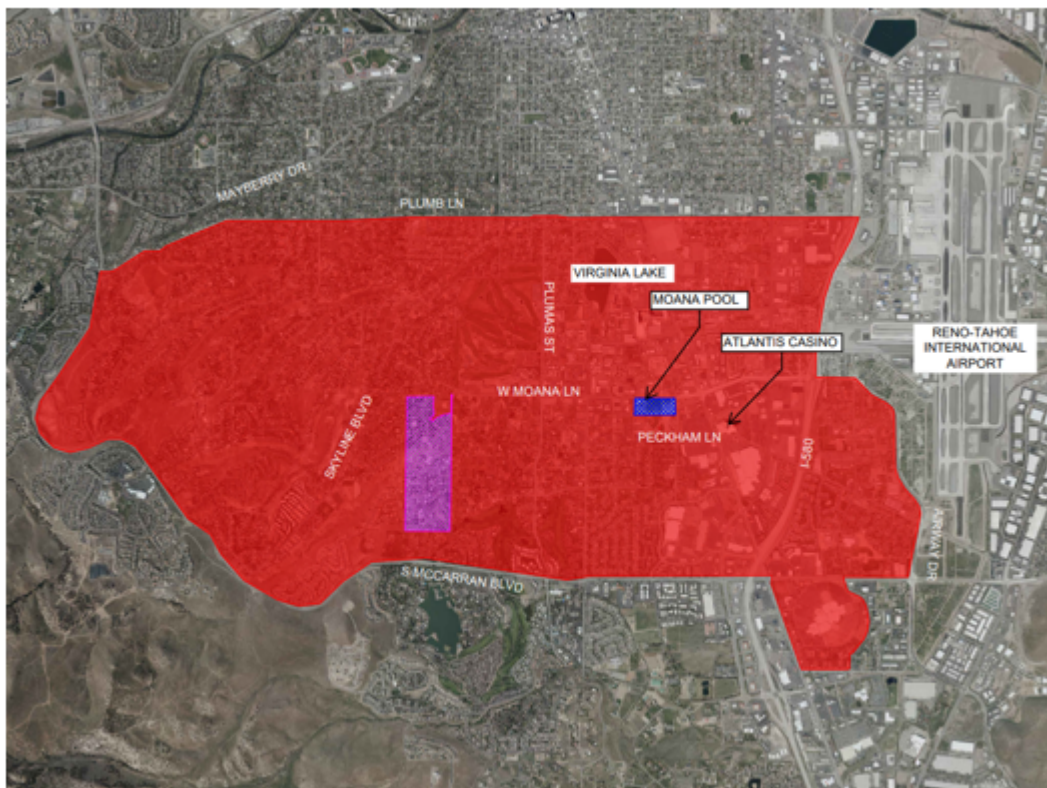
Arts, Parks, and Historical Resources

**Previous Council Action:**

On March 9, 2022, Council directed staff to continue negotiations with Avalon and to return back to Council with an agreement for review and consideration.

**Background:**

Avalon is Nevada's largest regulated geothermal utility. They are regulated by the Public Utilities Commission of Nevada (PUCN). The company provides heat and hot water to customers via buried hot water pipe. The heat comes from deep earth geothermal wells that Avalon owns and operates. Avalon hopes to increase geothermal heat customer adoption by removing the burdens of high up front and operational costs associated with drilling and maintaining a geothermal resource. It was this idea that attracted Cyrq Energy, an owner and operator of large-scale geothermal power plants, to purchase Avalon (then Nevada Geothermal Utility Company) in August 2017. Cyrq's goal with Avalon is to drill new geothermal wells and develop new pipeline infrastructure to serve large scale commercial users. Exhibit A that shows Avalon's exclusive right per the Public Utilities Commission.

**Exhibit A****Discussion:**

City staff supports pursuing an agreement with Avalon because it falls in line with two of Council's overarching Goals from the Strategic Plan, Fiscal Sustainability and Infrastructure, and Climate Change and Environmental Sustainability.

Entering into this agreement will result in new revenues to offset the operating cost of Moana Pool. Geothermal is also a better sustainable resource.

If Avalon succeeds in constructing a successful geothermal well on the City's property, the following revenue options would be returned to the City as compensation for the resource rights: franchise fees, royalties and lease, and reduced cost of heat for Moana Pool.

The key terms of the proposed Lease provide:

#### Resource Rights Compensation

- Lease Agreement
  - 25 years, with 10-year extension option
  - \$5,500 per year; ceases upon commencement of royalties
  - Agreement can be terminated by City if due diligence is not met by Avalon
- Royalties (at standard Federal BLM rate)
  - 1.75% gross revenues 1-10 years  $\pm$  \$20k-\$40k annually
  - 3.50% gross revenues after 10 years  $\pm$  \$40k-\$90k annually

#### Breach of Agreement Resulting in Termination

- Failure to pay any installment of royalty or rental after 30 days in default.
- Failure to perform Geotechnical work by October 31, 2024.
- Failure to construct infrastructure by October 31, 2025.
- Failure to commence start-up and operations by October 31, 2026.

#### Inspection Rights/Books & Records

- Avalon shall provide all data, logs, production reports & technical information shall be provided to the City annually in an acceptable format.

#### Fees & Bonding

- Avalon is responsible for all fees and bonding required by State or any other governmental agency.

#### Reclamation

- Avalon is responsible for any environmental, reclamation, and restoration matters to the extent Avalon causes the condition.

#### Mineral Rights

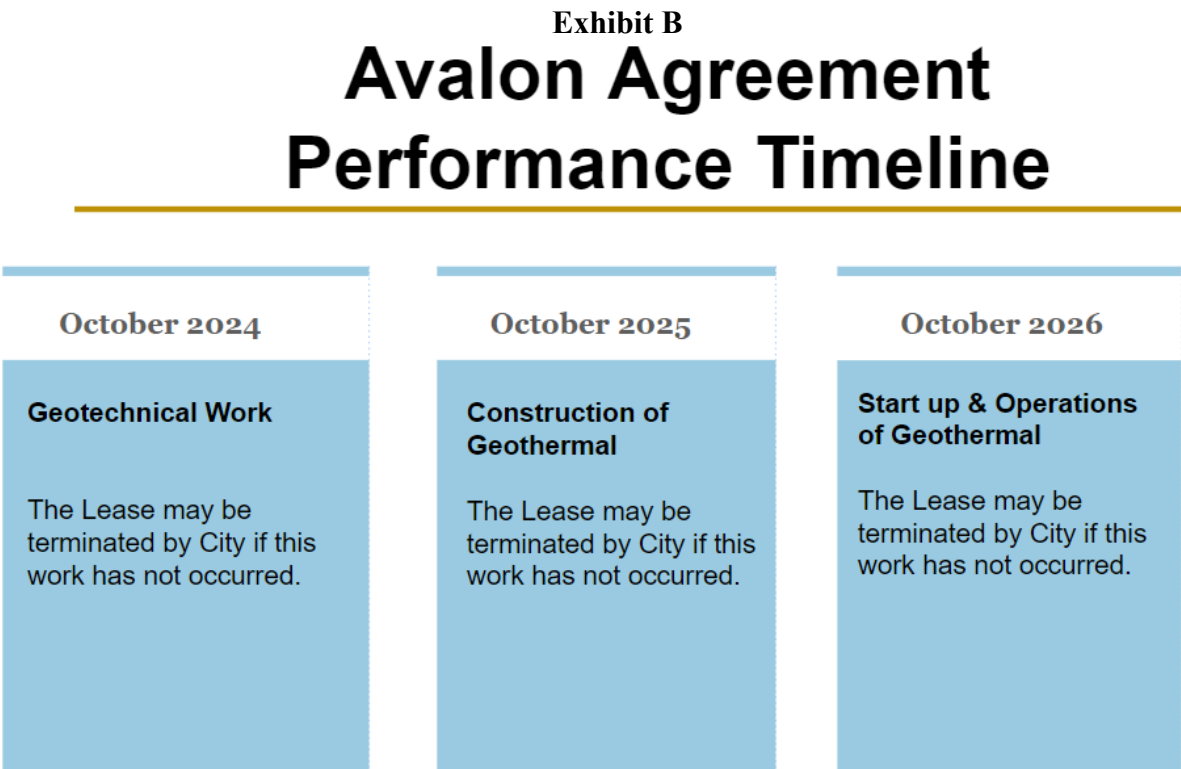
- City Retains all mineral rights.

Once the Geothermal Lease Agreement, is approved, staff will need to finalize a Utility Easement which allows Avalon to drill, trench, and install piping for the geothermal utility across City owned property. Staff is asking Council to authorize the City Manager to sign in order to expedite the

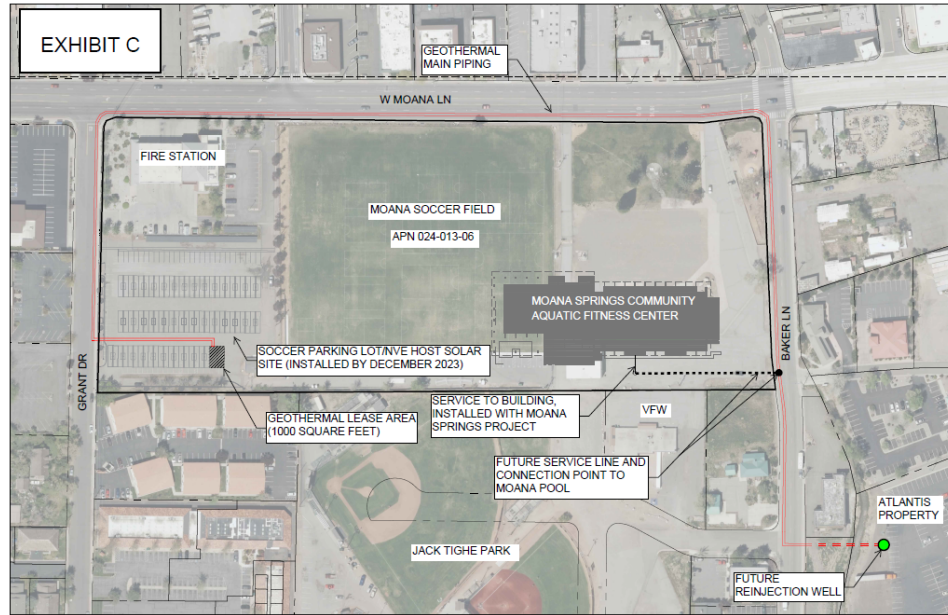
process. Last, a new Franchise Ordinance will be presented and proposed for Council adoption. This ordinance facilitates the placement of utility infrastructure in the right of way and the collection of the franchise fees. Staff will bring the ordinance back at a later date.

Once operational, additional revenue opportunities include franchise fees and reduced costs for heat onsite.

Exhibit B below shows the dates established in the agreement that Avalon has agreed to perform.



The Exhibit C shows the general vicinity of the proposed well (denoted with black hatch). The location would be in the parking lot adjacent to Grant Drive and just south of Fire Station #21.



Staff has determined from the PUCN that future Service to Commercial Customers, including the City under any proposed Heat Service Agreement, must be based on Avalon's filed rate structure with the PUCN is 82.5% of Sierra Pacific Power Co.'s Large and Industrial Natural Gas Service Rate ("Service Rate"). The district heating (geothermal) rate is based on the estimated natural gas load for the customer site. This is done because geothermal water flows 24/7 and there is no way to "meter" geothermal. Annually, the customer load is estimated based on the amount of natural gas that would be needed for heat. That amount in therms is then multiplied by the Service Rate x 82.5% = customer geothermal rate. Avalon is required to file all new commercial contracts as an informational filing with the PUCN. If any commercial customer wants to deviate from the filed rate methodology, Avalon will make an informational filing with the PUCN. This will determine the rate to be in the Heat Service Agreement which is a standard form approved by the PUCN.

Staff recommends Council approval of the Geothermal Lease Agreement, direction to staff to finalize the Utility Easement and Heat Service Agreement and authorize the City Manager to sign the Utility Easement Agreement and Heat Service Agreement.

### **Financial Implications:**

Avalon Geothermal will be responsible for all expenses related to exploration, drilling, operating and maintaining their well on City property. Actual royalties will be dependent upon different factors and vary from year to year. Factors include gas prices (geothermal rates are pegged to gas), weather, number of customers, and customer demand. Estimated range is: 1.75% \$20,000 to \$45,000 annually and 3.5% \$40,000 to \$90,000 annually. When a Franchise Fee is in place it will be 5% of the gross revenues derived by the franchise from the sale of geothermal resource to its customers within the service area during each calendar year.

**Legal Implications:**

The approval of the Lease allows Avalon to drill the well on City property and use the geothermal resource located on City property to supply the Moana Pool and Building with geothermal heat and to sell the resource to other customers.

**Recommendation:**

Staff recommends Council approval of the Geothermal Lease Agreement, direction to staff to finalize the Utility Easement and Heat Service Agreement with authorization for the City Manager to sign the Utility Easement and Heat Service Agreement.

**Proposed Motion:**

I move to approve staff recommendation.

**Attachments:**

Geothermal Lease with Exhibits