

Irrigation Conversion Project

Garden Lakes



*Presenter: Paul Lopez
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Background

- Garden Lakes consists of 69 acres of landscaping, (41 acres turf).
- Current/Initial Irrigation system (circa 1980's)
POTABLE/Drinking Water
- Lakes are supplied by SRP delivery. Unique, Others in valley supplied by reclaimed or potable water sources.
- GLCA has historically dealt with pressure issues in their irrigation system.
- South Lake has historically dealt with Golden Algae Blooms
 - Golden Algae releases a toxin that kills fish.

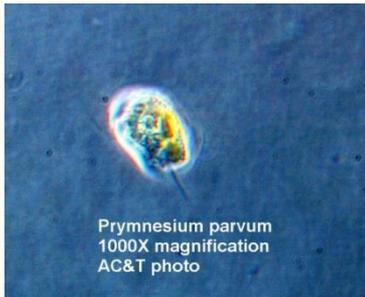
Proposed Conversion Project

- Garden Lakes Community Association (GLCA) proposes to:
 - Install private non-potable transmission system supplied from the southern lake via a pump station at Kimberly Park
 - Sever connection to the City potable water system
 - Reconnect the existing irrigation distribution system to the new non-potable transmission system
- Staff has coordinated with ADEQ and MCES
 - Surface waters are not regulated
- Plans have been approved
- Staff has worked out a license agreement that will:
 - Indemnify the City from liabilities resulting from installation and distribution of a non-potable water
 - Require the GLCA to install and maintain signage notifying the public of the use of a non-potable water for irrigation purposes
 - Require the GLCA to obtain a permit for any substantial change to the system, and any change/maintenance that would occur within the public right of way



Benefits

- Staff believe supporting the conversion will have the following benefits for the City:
 - Reduce consumption of potable water increasing water banking to build the assured water supply. (~64,303,000 Gallons per Year)
 - Ancillary budgetary/sustainability impacts of reducing our groundwater draw
- The GLCA believes converting the system will have the following benefits for their community:
 - Reduce the overall water bill for irrigation consumption throughout the community
 - Increase turnover rate in the lake; in turn may reduce the potential for golden algae to develop.
 - Resolve any pressure concerns



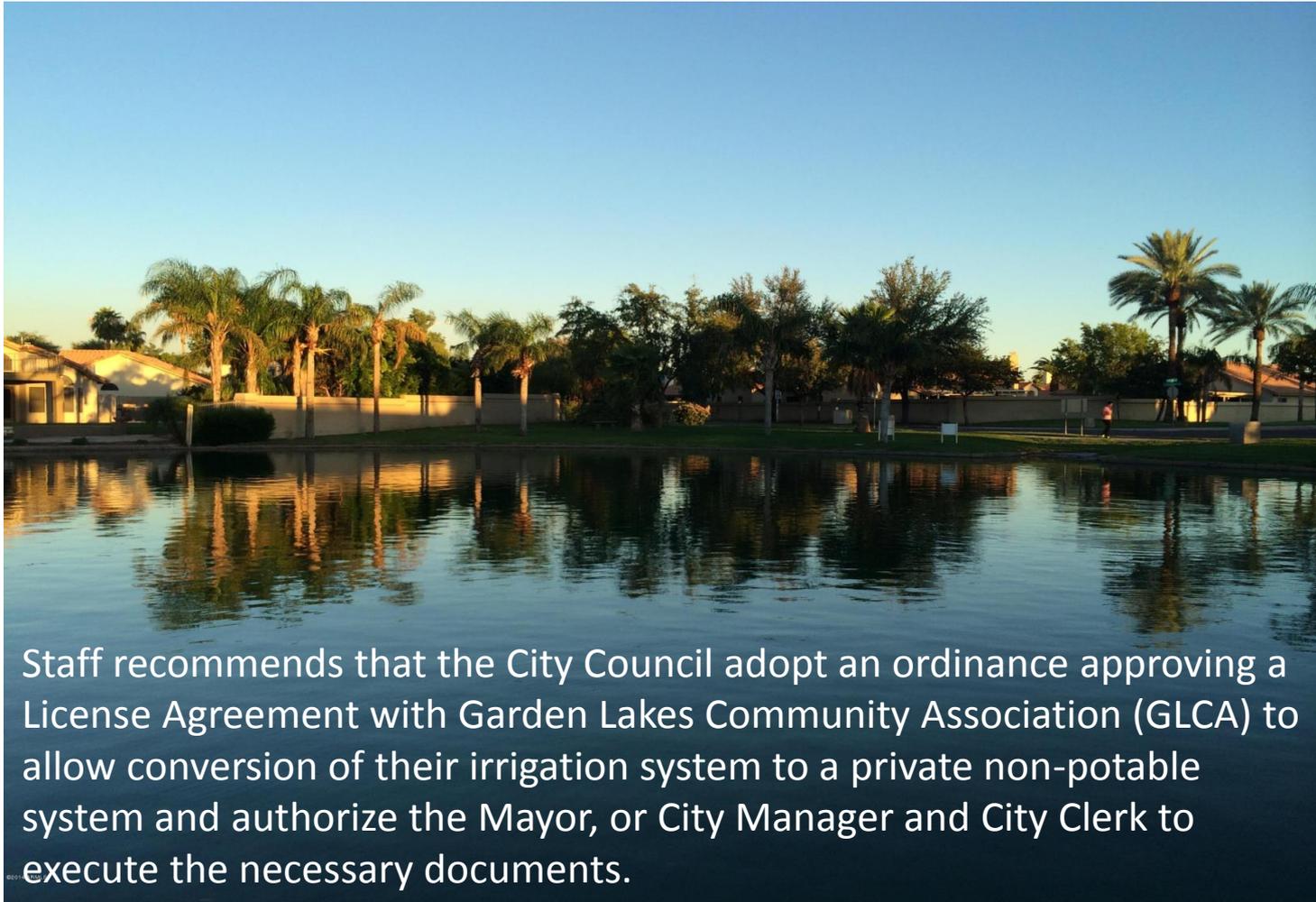
Considerations

- Ample Supply
 - GLCA has verified with SRP that they can supply their consumption needs for this project now and in the future.
- Treatment of Lake Water
 - GLCA will continue to contract with Aqua Consulting to dose water with Acid and peroxide
- Proposed Alignment and Conflicts.
 - The GLCA and their consultants are aware of the proposed transmission alignments and potential conflicts and the Contractor will adjust accordingly in the field and as-built significant changes.
- Future Reconnection
 - No opportunity once the conversion is made to reconnect the existing distribution system back to the public potable system. Would likely require the entire distribution system be replaced by the GLCA.
- Existing System Condition
 - The GLCA is aware of the existing infrastructure age, the pressure differential between the existing and proposed supply system, and is prepared to take care of the O&M challenges that may arise from the conversion.
- Work in ROW and Streets
 - Extra protection required when crossing the ROW. A separate civil improvement permit is required for any future work in the right-of-way.

Considerations

- Insurance
 - The GLCA will be responsible to maintain insurance per City Minimum requirements
- Cross-connection Logistics-28 known meter connections
 - Contractor must coordinate severing of all connections to the potable water system with PW staff prior, to switching the existing irrigation distribution system to the new non-potable transmission system.
- Operation & Maintenance Costs
 - The GLCA has worked closely with their consultants Coates Irrigation, Aqua Consulting, and Hess-Rountree to evaluate the long term maintenance costs. They have weighted the economics and find it to be beneficial for the GLCA to proceed with this project.
- Separation
 - Since surface water is not a regulated water source MCEs and ADEQ do not have concerns about separation requirements from potable lines.
- Maintaining the Existing Landscape in ROW
 - GLCA will continue to be responsible to maintain and irrigate Landscape in ROW.
- Revenues
 - Anticipated revenue loss of approximately \$218,198
 - The decrease in revenue will be factored into the January 2017 utility rate increase.

Staff Recommendation



Staff recommends that the City Council adopt an ordinance approving a License Agreement with Garden Lakes Community Association (GLCA) to allow conversion of their irrigation system to a private non-potable system and authorize the Mayor, or City Manager and City Clerk to execute the necessary documents.