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Department of Utilities  
Water Treatment Facility  
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**TO:** Chairperson Joe Martin and Members of the Utilities Committee

**CC:** Public Works Director Paula Vandehey

**FROM:** Utilities Director Chris Shaw

**DATE:** January 22, 2015

**RE:** *Approve the Design Concept of a One Million Gallon Composite Style Water Tower*

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**BACKGROUND:**

The construction of the 1 MG Glendale Water Tower is currently planned for 2015-2016. The proposed tower will add an additional 500,000 gallons of elevated water storage for the city. As reported in a February 29, 2014 memo to Utilities Committee, the Public Works and Utilities Departments had selected a City owned site southwest of the Glendale and Sandra intersection.

**PROJECT STATUS:**

On July 18, 2014 the Utilities Committee approved an engineering services contract to Strand Associates for design and construction services. Strand and Associates was tasked to provide a tower cost alternatives study prior to design services. The evaluation of tower concepts took into account both construction and life time operations costs of three styles of water towers. A summary of the reported costs are attached to this memorandum. From the alternatives analyses, the composite style of water tower provides the greatest value at the least cost.

**RECOMMENDATION:**

I recommend that the Utilities Committee approve the concept of composite style of water tower be developed. The creation of bidding documents will follow should the Committee approve this concept. If you have any questions regarding the project please contact Chris Shaw at 832-2362.

# Tank Costs

## CAPITAL TANK COSTS

	Spheroid	Composite	Fluted Column
Tank Construction Costs	\$3,070,000	\$2,740,000	\$2,910,000
Additional Tank Features	\$365,000	\$365,000	\$365,000
Site Work	\$125,000	\$125,000	\$125,000
Subtotal	\$3,560,000	\$3,230,000	\$3,400,000
Contingency (20%)	\$712,000	\$646,000	\$680,000
Total	\$4,272,000	\$3,876,000	\$4,080,000

## 60-YEAR LIFE CYCLE COSTS

	Spheroid	Composite	Fluted Column
Capital Tank Costs	\$4,272,000	\$3,876,000	\$4,080,000
Maintenance Costs	\$1,310,000	\$1,300,000	\$2,040,000
Total	\$5,582,000	\$5,176,000	\$6,120,000

## REPAINTING COSTS

	Spheroid	Composite	Fluted Column
Full (every 30 years)	\$461,000	\$443,000	\$737,000
Partial (15 years)	\$347,000	\$360,000	\$508,000