



Santa Clara Valley Water District

File No.: 16-0013

Agenda Date: 3/8/2016
Item No.: *8.1.

BOARD AGENDA MEMORANDUM

SUBJECT:

Board of Directors Meeting Room Technology Upgrade (HD Broadcast System).

RECOMMENDATION:

Approve the approach recommended by Information Technology for the Boardroom Technology Upgrade.

SUMMARY:

The Boardroom audio and video system is used extensively for public Board meetings and community and District events. Currently, the system uses obsolete analog video technology from the year 2000. Information Technology (IT) recommends an upgrade from the outdated video broadcast standard to a high definition (HD) broadcast system to achieve the following improvements:

1. Ensure that the viewing public has access to Board meetings by building a reliable system that is dependable, modern and technologically relevant.
2. Enhance the viewer experience by providing a bright and crisp display which has split screen views and allows multiple preset cameras for delivery of broadcast services. This includes broadcast HD quality streaming for distribution channels such as internet, cablecast, podcasts, and simulcast.
3. Provide a user-friendly system with enhanced capabilities for persons with disabilities, including an ADA compliant lectern featuring pneumatic lift for height adjustment, wheel chair accessibility, optimum viewing angle, and easy access to USB ports to connect flash drives.
4. This upgrade may allow us to acquire a PEG-TV (Public, Educational and Government access television channel). This channel can be used to broadcast Board meetings, community meetings, and other public outreach initiatives of the District.
5. Create an easy to operate, media-friendly, and reliable system that facilitates presentations for meetings including the District's Board meetings and various community groups.

6. Meet the requirements of stakeholders as stated in Attachment 2.

7. Build a system that can be fully supported by vendor maintenance and support.

The estimated project cost, including design, construction, staff labor, and contingency is \$600,000. This cost is currently not budgeted and will require action by the full Board.

BACKGROUND:

The current system was designed in 1997 and built in 2000. In 2005, the District hired Spinitar to assess the audio/visual systems and fix problems (per a CEO Bulletin dated July 19, 2005). Following this assessment, a recommendation to perform a repair went to the Board of Directors. In a Board Agenda Memo dated February 7, 2006, Spinitar outlined the problems with the system at that time:

1. The audio system must be run at a lower volume to avoid feedback.
2. Audio cassette recorder has started to destroy tapes.
3. Video, audio and control connections around the room are unreliable.
4. Equipment racks are overloaded with equipment and wiring, creating the possibility of overheating.
5. System wiring is extremely disorganized and inadequately labeled.
6. As-Built drawings are inaccurate.
7. IPTV signal from boardroom is poor.

To address these issues, a small upgrade was completed in 2006 at total cost of \$92,650. Between 2009 and 2013, the District spent an additional \$115,000 on equipment repair and replacements.

Despite these repairs and replacements, the system continues to have sporadic problems that cause inconvenience and delays during the meetings. These problems included malfunctions with cameras, dais monitors, microphones, software, and control panels, in addition to poor quality or no broadcast. The problem is compounded further, by not having a support and maintenance contract for the equipment in the Boardroom. Vendors do not want to support equipment that does not have manufacturer's warranties.

On September 26, 2014, the Board received a Planning Study Report outlining and scoring options for an upgrade and e-voting system. A complete upgrade scored the highest on the following aspects: maintainability and operability; features and functionalities; scalability and adaptability; and life-cycle support costs.

At the October 28, 2014 Board of Directors meeting, following the Board's discussion, the Chief Executive Officer requested that staff return with further information and refined options for the project. Only the required and necessary improvements are proposed.

PROPOSED UPGRADE

IT has worked very closely with the design consultant RGD Acoustics, and performed an additional review of the proposed upgrade along with the review of stakeholder's matrix in Attachment 2.

RGD Acoustics have listed the following technical benefits for migrating from a legacy analog-based video switching system to one that natively supports HD video signals:

1. A natively digital video system will work seamlessly with the plethora of digital only sources coming on the market. Digital video systems are able to display 4k sources, which may become a standard in the future for HD video as the technology advances over time.
2. Signals that are generated from a digital source look best on an appropriate display or projector when they are unprocessed and unaltered from their original, native state.
3. The use of digital to analog conversion increases the time the system takes to switch and display the selected source (switching time), and adds complexity of the convertors in the system.
4. Analog-based systems are unable to display High Bandwidth Digital Content Protected (HDCP) sources such as those from Blu-ray disks per the "Analog Sunset". DVD's may ultimately be replaced by Blu-ray disks and players, which are already bound by Analog Sunset 2013.
5. There is no guarantee that in the near future, computer vendors will manufacture devices that require HDCP compatible display devices. In this scenario, an analog based system will not pass a source signal to output display device.
6. There is no guarantee that in the near future, displays and projectors will include analog inputs at all which would in turn require an initial digital to analog conversion for input into an analog switcher, followed by a subsequent analog to digital conversion to the digital only display.

FINANCIAL IMPACT:

The upgrade will cost \$660,000, which includes a ten percent (10%) contingency fund. That amount is not currently budgeted. There is adequate reserve in Information Technology Fund to fund the upgrade. A budget adjustment will be brought to the Board with the plans and specifications for approval.

CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indicate physical damage to the environment.

ATTACHMENTS:

Attachment 1: Engineer's Letter

Attachment 2: Stakeholders Matrix

Attachment 3: PowerPoint

UNCLASSIFIED MANAGER:

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