



DATE: February 9, 2015

TO: Honorable Mayor and City Council

FROM: Daniel McIntyre, Public Works Director  
Stephan Kiefer, Community and Economic Development Director  
Douglas Alessio, Administrative Services Director

SUBJECT: Public Infrastructure Asset Management Program

RECOMMENDED ACTION

Staff recommends that Council:

1. Direct staff to bring a series of reports to Council over the next 12-18 months on the condition of the City's various categories of infrastructure, along with policy options and recommendations for service levels and funding programs
2. Adopt a resolution re-appropriating in FY 2014/15 \$100,000 in General Funds (Fund 001) from the Decorative Wall Replacement – Citywide Project No. 2006-54 to the Asset Management Plan Project No. 2016-12.

SUMMARY

The City Council has requested a report on the status of the City's infrastructure, and policy options for addressing anticipated deterioration of the City's infrastructure. The City has never adopted a formal policy on the acceptable service levels of its infrastructure. Staff is proposing to bring a series of reports to Council over the next 12-18 months on the condition of the City's various categories of infrastructure, along with policy options for service levels and funding programs. While the level of required annual investment in infrastructure will depend on the service level that is adopted for each asset class, broadly speaking, additional funding over time will be necessary to preserve the City's infrastructure in its current condition.

DISCUSSION

At the May 12, 2014 City Council meeting, the Council requested a report on the City's infrastructure rehabilitation needs and what is required to sustainably maintain its infrastructure. The City's Enterprise Funds, include sewer, water, golf courses, and Airport. City policy has been that necessary investment in these classes of infrastructure be funded through user charges, and not subsidized by the General Fund. The condition of the Enterprise Fund infrastructure is covered in a separate staff report to Council. This staff report covers infrastructure operated and maintained primarily from funding provided by the General Fund. This infrastructure includes streets, sidewalks, street lights, traffic signals, public landscaping, public buildings, fountains and water features, historical buildings, public art, drainage facilities, streams and channels, decorative walls, and trails.

The City Council has previously reviewed the condition of the City's infrastructure. A major report was presented to the City Council in September of 2006. Subsequently, the City Council adopted an Infrastructure Rehabilitation Program as a Council priority from FY 2008/09 through FY 2011/12. The Council received a number of reports on the condition of the City's infrastructure, as well as the results of an assessment of community support for a special funding measure to provide a new revenue stream to support infrastructure rehabilitation and maintenance. Based on this community assessment, only weak community support existed for a special ballot measure to fund infrastructure rehabilitation. A background overview of Infrastructure Rehabilitation Program efforts over the last 8 years is included as Attachment #1.

A large portion of the City's infrastructure was initially constructed and dedicated by new development or financed by special revenue sources such as State or Federal grants. In most cases, the resulting on-going maintenance costs are borne by the General Fund from the growing property tax and sales tax base, augmented by certain special revenue sources from regional, State, and Federal sources such as gas tax subventions. In the case of infrastructure maintained primarily by the General Fund, the level of City investment in maintaining the facilities has not kept pace with the deterioration of the infrastructure. As a result, there is on-going deterioration of the assets since they were originally constructed. The City's latest Comprehensive Annual Financial Report shows that the book value of this infrastructure, net of depreciation, is \$247 million. The full replacement value of all infrastructure is estimated at over \$1 billion, and there would be well over \$300 million of rehabilitation work to restore infrastructure throughout the City to a "like new" condition.

Like virtually all cities in California, Livermore has never formally adopted a policy on the acceptable condition and serviceability of its public infrastructure. Decisions on maintenance have been made incrementally through adoption of operating and capital budgets. The level of financial investment in maintenance and operation has been and continues to be insufficient to prevent the slow deterioration of the City's assets. For some categories of infrastructure, most notably landscaping and public buildings, this deterioration has accelerated under the financial strains of the Great Recession.

In May, the City Council requested this status report. Staff recommends that after receiving this report, the City Council begin the process of reviewing each class of public infrastructure. During that review, the Council would evaluate current service levels, and would establish a standard for service and funding levels for maintaining and operating each class of public infrastructure.

Given the wide array of infrastructure, and the different level of information currently available, staff proposes to bring back information to Council throughout 2015 and early 2016 on a number of policy options. A preliminary outline of policy options as well as next steps follows.

### **City Policy Considerations:**

There are a wide range of policy options for addressing the significant infrastructure rehabilitation needs of the City, including but not limited to:

Policy Area #1: Acceptable level of service and condition of infrastructure

The City Council could begin adopting specific standards of performance for infrastructure. One possibility is to determine that the condition of various categories of infrastructure currently is acceptable in most cases. In that case, resources would be allocated to offset any future deterioration, to maintain infrastructure in an “as is” condition. A second option is to allow some further deterioration of each category of infrastructure either consistent with existing funding levels, or some other reduced standard. A third option would be to adopt an enhanced standard for some or all classes of infrastructure and a goal as to when that new standard would be achieved. This option was the focus of previous Infrastructure Rehabilitation Program efforts from 2006 to 2012. A fourth option, which would be extremely expensive, would be to embark on a multi-year program to restore all of the different categories of infrastructure to a “like new” condition.

Policy Area #2: Establish variable maintenance standards for infrastructure depending on context and asset class

Currently, staff attempts to maintain all infrastructure City-wide to a common maintenance standard. Given competing demands for limited General Fund resources and the great variety in the type and importance of the various classes of assets that the City owns, it may be appropriate to focus efforts in certain key areas, and to reduce maintenance efforts in other areas.

The most obvious example is the standard for City streets. Special effort could be focused on keeping more highly traveled major streets at a higher level of maintenance, and reducing maintenance standards on more lightly traveled residential streets. The reason for considering this option is that major streets are not only used by more residents and businesses, but the speeds on those streets are higher, warranting a higher level of maintenance for safety and operational needs. Residential streets, in

contrast, are more lightly traveled, and travel speeds are significantly lower. Thus, there is less of a safety risk on these streets.

A second example is in the area of landscape maintenance. It may be appropriate to concentrate maintenance efforts on landscaping and streets in the Downtown core, because the Downtown core is intensely utilized by so much of the community. There would be a corresponding reduction in effort in other areas of the City, since improvements and amenities in those areas are enjoyed by fewer residents. In addition, the level of effort necessary to maintain a median in an attractive manner as it is experienced from a vehicle traveling at 35 mph is very different from that required to maintain an area experienced as a pedestrian.

#### Policy Area #3: Revise design standards

An example of this approach has already been implemented as a pilot project by changing non-essential design standards for public landscaping. Specifically, a maintenance project to clean up the medians on North Livermore Avenue, portions of Portola Avenue, and a portion of Holmes Street has been completed. Existing overgrown materials have been removed, and a reduced level of re-planting has been installed. The advantage is that with less intensive median planting, maintenance cycles and water use are both reduced. For example, maintenance cycles can be reduced from up to 6 times a year to twice annually. Expanding this concept more broadly would involve a change to City design standards for both re-planting City medians, as well as design standards for the few remaining medians yet to be built in Livermore.

There may be other areas where this concept could be beneficial, and staff will bring back a policy report over the course of the development of the City-wide Asset Management Program.

#### Policy Area #4: Shifting of sidewalk liability

Legally, property owners are 100% responsible for the cost of maintaining sidewalks adjacent to their property. Previously, the City placed responsibility for sidewalk repair on property owners, but subsidized up to 50% of the cost of sidewalk repair and replacement. In 2007, the City Council reduced the amount of the City subsidy to no more than 25% of the cost of sidewalk repair. One policy option would be to eliminate the entire City subsidy for sidewalk repair, and require property owners to maintain sidewalks to City standards.

#### Policy Area #5: Change of ownership/divestiture

It may be possible for the City to relinquish ownership and responsibility for some infrastructure. The most obvious examples would be transferring ownership of decorative walls along major streets to the adjoining property owners to maintain. A second example would be transferring ownership of historical facilities to other entities, such as governmental entities or non-profit organizations.

This concept has been used in a very limited way by the City for some historical structures such as the Duarte Garage. Relying on this as a more common approach represents a significant departure from historical Livermore practice. This concept is being implemented by some other Bay Area agencies as a way of addressing their long-term maintenance responsibilities. Staff proposes to bring back a fully developed policy discussion to Council in late 2015 or early 2016.

#### Policy Area #6: Develop new-voter approved funding mechanisms

Recently the City benefitted from the passage of a new regional Sales Tax Measure BB which helped supplement funding for transportation purposes. With the recent national and state emphasis on infrastructure needs the City may want to help advocate for state and federal programs. A number of local funding mechanisms could also be explored to provide funding to address some of the long-term infrastructure rehabilitation needs of the City. Examples include assessment districts, a City-wide parcel tax, or a utility user tax. As noted previously, an earlier community assessment indicated very weak support for many of these mechanisms. More detailed information is included in Attachment #1.

#### **Next Steps:**

The condition of the various categories of public infrastructure is understood at different levels. In some cases such as streets, staff has very good information on the condition of the streets, and can bring back a report shortly on policy options for pavement performance standards and funding. In other areas, staff is just beginning to develop information on the condition of infrastructure, and the amount of funding needed to maintain infrastructure at different levels of performance. Examples include decorative walls, public buildings, historical buildings, and public landscaping. A summary table is included as Attachment 2 that provides a quick overview of major infrastructure issues to be evaluated. With the assistance of a consultant, staff will be assembling more information and definitive policy options for Council consideration over the next 12-18 months.

The policy options presented to City Council will propose performance standards for infrastructure and assess financial resources needed to meet those standards. Moreover, the staff evaluation will identify both the intermediate term of maintenance backlog based on the selected standard, as well as evaluate any urgent rehabilitative work necessary for the various categories of assets. A re-appropriation of some funds from the specific Decorative Wall Replacement project to the Asset Management Plan project in the Capital Improvement Program budget is necessary to begin this process. Staff is proposing an initial re-appropriation of \$100,000.

After compiling and analyzing some additional information, staff will develop some schematic policy options on service levels and funding options for Council consideration.

Staff anticipates bringing a series of three to five policy discussions to the City Council over the next 12 to 18 months.

Staff will also suggest a program of community engagement and outreach to heighten community awareness of the long-term Asset Management Program.

#### FISCAL AND ADMINISTRATIVE IMPACTS

Staff recommends that \$100,000 of General Fund resources in FY 2014/15 be redirected from the City-wide Decorative Wall project to the more broad Asset Management effort. These funds are already programmed in the CIP, so no new appropriations are being proposed. An additional amount will be necessary continuing into FY 2015/16, and will be programmed into the Capital Improvement Program budget update.

The development of an Asset Management Program will involve a significant investment of staff resources. If this area is identified as a major Council goal during 2015-2016 Council Goal setting, major progress could be accomplished during the coming two-year period. This progress will require at least 1 FTE for an estimated two year period augmented by consultants, interns and temporary staff. This commitment would involve reassigning existing Engineering and Maintenance staff and will result in deferral of delivery of some maintenance activities and capital projects.

#### ATTACHMENTS

1. Attachment 1 – Background on Infrastructure Rehabilitation Program
2. Attachment 2 – Infrastructure policies and practices summary table

Prepared by:

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Approved by:

  
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City Manager

Fiscal Review by:

  
\_\_\_\_\_  
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## **Attachment 1**

### **Infrastructure Rehabilitation Program Background**

The City of Livermore currently has public infrastructure with an estimated replacement value of \$2.1 billion dollars which deteriorates slowly over time in most cases. Infrastructure with a replacement value of nearly \$1 billion includes, streets, sidewalks, decorative walls, street lights, landscaping, fountains, artwork, public and historical buildings, drainage facilities, streams and channels. These items are maintained by the General Fund and some outside special purpose funds. Additionally, infrastructure with an estimated replacement value of \$1.1 billion is maintained by Enterprise Funds including Sewer, Water, Golf and Airport.

The City Council received a staff report on long-term infrastructure maintenance and rehabilitation in September of 2006. At that time, the City Council gave policy direction to begin addressing some of the long-term rehabilitation needs. The direction included implementing a new refuse vehicle impact fee generating approximately \$850,000 per year for pavement maintenance, revising the sidewalk ordinance to reduce the public subsidy for owner repairs of sidewalks which generates \$50,000 per year for sidewalks, and considering a construction vehicle impact fee. The construction vehicle impact fee was not implemented due to the difficulty in developing an accurate nexus, the potential restrictions associated with interstate commerce laws, and the potential negative impacts of an additional development related fee during a sluggish economic climate. Council also directed staff to consider a revenue ballot measure to partially fund infrastructure deficiencies. Staff undertook steps on this direction as outlined below.

In FY 2008/09, the City Council established an Infrastructure Rehabilitation Program as the highest Council priority for FY 2008/09 and 2009/10. A key initial step taken was to conduct an assessment of Livermore citizens' willingness to support a funding measure on the ballot. A study conducted by The Lew Edwards Group noted that only 46% of respondents would support a ballot measure to provide a special revenue source for an Infrastructure Rehabilitation Program, far less than the two-thirds majority that would be required to pass such a measure. A full report was presented to City Council in February of 2009, with staff recommending, and Council directing, that staff initiate a long-term community engagement process to build support over time for an infrastructure rehabilitation program ballot measure. It was noted that the polling was done at the bottom of the FY 2008/09 recession, and that support for a funding measure might improve as the economy improved.

For FY 2010/11 and FY 2011/12, an Infrastructure Rehabilitation Program was again adopted as a Council priority. The main work program was development of a Community Engagement program to educate the public and gradually build support for

a ballot funding measure. Subsequently, in Summer 2010, a Legacy Livermore team developed a comprehensive Community Engagement Program for Infrastructure Maintenance Financing Measure. However, because of the severity of the Great Recession, and the need for a 20% reduction in staffing and resulting services, the Community Engagement Program was placed on hold.

The Infrastructure Rehabilitation Program was not established as a City Council priority for FY 2012/13, FY 2013/14, and FY 2014/15, in part because of resource limitations. There have, however, been a number of programs and operational changes implemented to address the substantial accumulating deterioration of the City's infrastructure. One-time funding sources to address street needs were made available. These included the 2009 American Recovery and Rehabilitation Program (ARRA), which provided \$1.4 million of federal funds to the City to do major rehabilitation work on major street arterials including sections of Vallecitos Road, Holmes Street, Murrieta Boulevard, East Avenue, Vasco Road, and Fourth Street. New supplemental funding sources have also been developed including the new statewide Vehicle Registration revenues of approximately \$350,000 to \$400,000 per year. More recently, in November of 2014, the Alameda County Voters approved Measure BB, which beginning in Fiscal Year 2015-16 will provide approximately \$1,000,000 per year in Livermore for streets, trails and pedestrian facility rehabilitation.

In addition to these funding sources becoming available, staff has implemented a number of cost effective strategies for infrastructure maintenance and rehabilitation. These include modifying overlay strategies on streets, replacing traditional street lights with LED fixtures, and implementing pilot projects to renovate medians to reduce overgrown landscaping.

General background information as currently understood by staff is presented below for each category of General Fund-funded infrastructure:

## **1. Streets**

The City has 306 centerline miles of streets. The City maintains a detailed Pavement Management System which monitors the condition of the streets. Many factors contribute to the sustainability of streets including the actual pavement structure (depth and underlying soils), number of vehicles using the street, the type of vehicles using the street, and the quality of drainage and pavement materials used.

Streets are evaluated and assigned a pavement condition score ranging from 0 to 100. A good condition score is "70". The City's average system-wide rating is 76, declining from 84 in 2000. At current funding levels, the "pavement condition index"

was expected decline to 65 by 2025, representing a “fair” condition score. However, with the additional funding provided by Measure BB this score is expected to decline more slowly, though additional funding would still be necessary to maintain a “good” rating.

Currently, the City spends about \$3.2 million per year on pavement rehabilitation. Of this, \$1.5 million is from gas tax subventions from the State, \$875,000 is from the local Refuse Vehicle Impact Fee, and with the balance from Measure B, State Vehicle Registration Fees, and one-time federal grants. General Fund funding has not been used since 2007 to fund rehabilitation of streets. An annual allocation of \$3.5 million per year was identified as the amount necessary to keep pace with on-going maintenance needs.

As a result of the passage of Measure BB, approximately \$700,000 per year of additional revenue is now available for street maintenance which includes pavement management as well as traffic signals, street lights, curb and gutter, signage and striping. The City will, through the Capital Improvement Program update process, need to determine how best to allocate these new Measure BB funds between all the various eligible street maintenance and rehabilitation activities.

The pavement condition of the City’s streets is well understood. In the face of the structural imbalance between street conditions and current resources, the City will need to develop a public policy on acceptable street conditions and funding levels.

## **2. Sidewalks**

The City maintains approximately 325 miles of public sidewalk. The City has a goal to evaluate 20% of sidewalks each year; with high pedestrian traffic areas being reviewed annually. Given current resource levels, the City is unable to meet these goals. Many factors contribute to the sustainability of sidewalks, including; tree root upheaval, underground utility failures (sewer, water, storm drain), sidewalk materials and soils conditions. Under the Streets and Highways code, adjacent property owners are fully responsible for the maintenance of public sidewalks. The City has a program that provides a 25% subsidy for residential sidewalk repair.

To fully repair all sidewalks in Livermore, there is currently an estimated backlog of \$54.4 million in deferred sidewalk maintenance. Moreover, an additional \$1.4 million is needed annually to fully fund the sidewalk repair program at required levels, without reducing the backlog. The sidewalk repair program is funded by Measure B at approximately \$350,000 annually which includes doing inventory, temporary repairs, developing and issuing a bid packet, construction, testing and inspection and administration including billing and liens processes. Adjacent property owners

contribute 75% toward construction costs only for sidewalk repair, or about \$190,000 annually in reimbursements. With the passage of Measure BB the City will have approximately \$200,000 in additional funding for pedestrian improvements including such things as sidewalk repairs.

In addition to questions of appropriate service level, the issue of legal liability arising from trip and fall accidents and how best to administer the program warrants further evaluation. The physical condition of the City's sidewalks was originally estimated based on a limited sampling of disparate areas of the City. The City's goal is to review high pedestrian areas annually and review and repair 20% of the City each year. In reality, the City reviews high pedestrian areas every 1 to 2 years and the remainder of the City is canvassed based upon available resources.

### **3. Decorative Walls**

The City has responsibility for decorative walls, predominantly along major and collector streets such as Vasco Road, First Street, Concannon Boulevard, Murrieta Boulevard, East Stanley Avenue, Portola Avenue, Arroyo Road, and Holmes Street.

Approximately 70% of the decorative walls are maintained on an "as needed" emergency basis by the General Fund. These include many older areas of development, with some decorative walls being 50 years old, and near the end of their useful lives. The remaining 30% of decorative walls are located within Landscape Maintenance Districts. In the earliest days of the City's Landscape Maintenance District program, a sinking fund was set up to fully fund the replacement of walls over a 30 year period. The replacement of the decorative walls was intended to be funded by Landscape Maintenance assessments over many years. However, because of the high level of initial assessments, in 1990 the City Council eliminated the sinking fund, and no reserves or funding mechanism exists to fund rehabilitation and replacement of these decorative walls. The City Council could revisit the policy of Landscape Maintenance Districts funding this infrastructure need. It should be noted that almost all of the walls in landscape maintenance areas are less than 25 years old, thus representing the newer, less deteriorated decorative walls in Livermore.

The exact condition, backlog of maintenance and schedule for future rehabilitation and maintenance is not known. A formal assessment and rehabilitation plan is necessary to understand the condition of the decorative walls.

#### **4. Street Lights and Traffic Controls**

The City owns 6,500 street lights and 95 traffic signals throughout the City. The City maintains a partial inventory of its Street Lights and Traffic Signals. Over a decade ago, the City evaluated the condition of poles and circuits for its street lights and commenced a program to replace and or upgrade them. Traffic signal upgrades are included in an annual program which includes upgrades required by new federal and state mandate as well as modifications necessitated changing traffic patterns. The City also has an ongoing renewal and replacement program for signage and marking.

Recently, most of the street lights have been upgraded to LED type fixtures which significantly reduce the cost of energy. This energy savings is being used to pay off the loan for replacing these fixtures. The City has identified several areas of deteriorating light pole standards which will need replacement in the short or intermediate term. In addition there are areas of the City where street lighting does not meet industry standards. The City has a program to infill “dark areas” in high pedestrian locations.

There is no current systemic study of street light and traffic control renewal and replacement. A formal condition assessment and rehabilitation plan is needed for the City’s street light and traffic control systems.

#### **5. Median and Miscellaneous Public Landscaping**

The City maintains over 147 acres of public landscaping that are funded by the General Fund. This includes median islands as well as small parks and public gathering places such as Hansen Park and Carnegie Park. Public landscaping consists of irrigation systems, plantings, pathway lighting, hardscapes, trellises, flagpoles and furnishings. Since the Great Recession, the level of maintenance has been reduced. The ongoing drought has aggravated the situation by limiting the amount of water available for landscaping.

Prior to 2004, periodic major renovation of landscaping and irrigation systems was completed as part of the capital improvement program. More recent examples of public landscaping renovation include rehabilitation of some medians on Murrieta Boulevard in phases, upgrades of landscaping along East Stanley Boulevard, and upgrades of landscaping at the Civic Center associated with building construction and expansion. However, since 2004, there have been no major renovations of landscaping and irrigation systems.

As an interim measure, in FY 2013/14, the City Council approved an allocation of \$500,000 towards renovation of key median landscaping and irrigation throughout the City. The intent was to remove aging overgrown landscaping, replant the medians at a lesser, yet suitable intensity to reduce the number of maintenance cycles, and to reduce irrigation requirements. The 5 to 10 year cost to renovate the landscaping and irrigation in medians on major corridors is estimated at over \$3 million. Demonstration projects to rehabilitate medians have been completed on North Livermore Avenue, on a portion of Portola Avenue near North Livermore Avenue, and on Holmes Street near Murrieta. Further phases of this multi-year project will be completed after the current drought is over because establishment of new plant materials during a period of extreme water conservation is not feasible.

In addition to the landscaping funded by the General Fund, there are another 114 acres of landscaping that are funded by the over 90 City Landscape Maintenance Districts (LMD) and 53 acres funded as part of the El Charro Project (CFD). Originally, the Landscape Maintenance Districts included in their assessments funding for long-term landscaping and irrigation rehabilitation and replacement. However, because of the unacceptably high level of assessments, in 1990 the City Council rescinded the policy that required Landscape Maintenance Districts to pre-fund long-term rehabilitation. As a result, most of the LMD's have nominal funds available to meet rehabilitation or replacement needs.

No systematic study of landscaping and irrigation renewal and replacement needs has been undertaken. A formal condition assessment and renewal/replacement schedule is needed to understand long-term funding needs.

## **6. Fountains and Water Features**

The City owns seven (7) fountains and water features. Two of these water features (Brickyard and Carnegie Park) are older, and need major rehabilitation work. The remaining features (Lizzy, Flagpole, Hansen Park, and two at the Bankhead Theatre) are more recently constructed, and have no known short-term rehabilitation needs.

No study of long-term rehabilitation needs has been conducted, and a study is needed.

## **7. Public Buildings**

The City owns 25 buildings including City Hall, the Police Department, Libraries, Bankhead Theater, the Maintenance Service Center, Fire Stations, and the Old Library.

In 2004, a study was conducted on long-term rehabilitation needs for the City's building facilities. In addition to day to day maintenance, a minimum funding level of approximately \$500,000 was identified for the long-term rehabilitation reserve. However, in response to fiscal pressures, the City Council suspended the funding of the long-term building rehabilitation fund. Starting in 2013, the City Council began a "down payment" on the long-term rehabilitation need, by adding \$100,000 per year of funding to the long-term reserve.

The previous building facility assessment is out of date, and needs to be renewed. The initiation of a long-term rehabilitation assessment is pending, and will be presented to the City Council in late 2015. The recommendations of the study will be considered in future City budgets.

## **8. Historical Buildings**

The City owns several historic buildings and properties, including Hagemann Farm, Ravenswood, the Barn, and the Carnegie Building. Preliminary review by staff indicates that extensive rehabilitation is needed. However, no formal systematic study has been completed. A full study is needed to assess the level of rehabilitation required.

The 2010 Master Property Agreement with Livermore Area Recreation Park District (LARPD) requires the City and LARPD to consult on funding needs and methods, although neither party is obligated to provide major rehabilitation funding. If funding is not allocated, the City may choose to close the facility until the rehabilitation issues are addressed.

## **9. Public Art**

Over the last decade, the City has increased its ownership of public art. Public art varies from mosaics (Main Library) to sculptures (Peace Sculpture at Old Main Library) to painted utility boxes throughout the downtown. There is currently no funding to rehabilitate or refurbish this public art work. A study is needed to identify long-term financial needs.

## **10. Drainage Facilities**

The storm drain system covers an area of approximately 26 square miles and

contains over 171 miles of storm drain pipe and three storm drain pump stations. The average age of the storm drain pipelines is approximately 40 years compared to an estimated service life of 100 years. Overall, the storm drain system is in good physical condition, but is undersized to handle a 10-year storm event.

In 1992, the City established a Stormwater Enterprise Fund to fund the stormwater management and discharge control program. The fund is supported by annual user charges assessed on properties, generating approximately \$1,000,000 annually. These funds are applied to activities and expenses associated with maintenance and operation of the stormwater collection system and other stormwater permit requirements. Maintenance activities include inspecting, cleaning, and repairing storm drains. Increasing permit requirements have outpaced available funding to cover the costs of the stormwater program. Currently, there is a funding shortfall for trash capture and failed pipe segments. Additional City funds are required for correction of deficiencies and/or replacement.

Approximately \$103 million would be required to return the entire storm system to a "like new" condition. Based on a 2006 assessment, an additional \$14.3 million annually is needed for storm drain maintenance, including incremental replacement. The development of a detailed condition assessment, risk model, and renewal/replacement plan would assist in the prioritization of resources to address critical corrections.

## **11. Streams and Channels**

The major streambeds providing drainage to the City of Livermore are the Arroyo Las Positas, and Arroyo Mocho,, and to a lesser extent the Arroyo Del Valle. Over half of the estimated 48 miles of streams that pass through the City are owned and maintained by the City. These streambeds are not maintained by Alameda County Flood Control and Water Conservation District (Zone 7) because of their insufficient capacity to pass flows.

Minimal expenditures are required to complete periodic removal of silt buildup at bridges and in culverts for the streambed system. Minor repairs are made intermittently as capital improvement projects. Estimated maintenance costs for minor repair work, including permits and annualized capital improvements are approximately \$100,000 per year.

A long-term goal of the streambed program is to bring the streambeds into an acceptable condition and transfer responsibility to Zone 7. Given the prohibitive cost (\$450 million), the City has partnered with Zone 7 to implement the first phase of a flood control diversion project on the western side of the City as part of the El Charro Specific Plan Infrastructure Improvements. Efforts are underway to identify

grant funding to complete the remaining flood control projects as identified in the Zone 7 Stream Maintenance Master Plan. Additionally, the City has identified silt removal and flood control improvements to increase flow capacity to the Arroyo Las Positas (in the vicinity of the Las Positas Golf Course, and to a lesser degree Springtown Golf Course) as a high priority. The cost is estimated to be approximately \$30.5 million. Silt removal at these locations is critical to overall functioning of the streambed system, protecting assets at the City Airport and preserving City golf courses.

Annual maintenance costs for permits, silt removal, vegetation control, and property restoration is estimated to be \$600,000; however, only \$500,000 is allocated in the operating budget. Based on recent studies, the required annual cost to address both maintenance and the Arroyo Las Positas flow capacity issue over a 20-year period is \$2.1 million. The City will continue to work with Zone 7 to refine costs and strategies, prioritize implementation approaches, and secure outside funding to offset improvement costs.

## **12. Trails**

There are approximately 30 miles of off-street, paved multi-use trails in the City, of which the City owns and maintains approximately 19.6 miles. The LARPD owns and maintains approximately 10.2 miles and the Livermore Valley Joint Unified School District owns and maintains 0.2 miles of off-street, paved multi-use trails. The City also maintains bike lanes and bicycle parking throughout the City.

The City uses a pavement management program for its trail system and spends approximately \$100,000 annually on trail maintenance funded by Alameda County Measure B funds. With the passage of Measure BB, it is estimated that an additional \$100,000 will be available annually for bicycle programs, including City trail expansion and maintenance.

## Infrastructure Policies and Practices Chart - Attachment 2

	Adopted		Recommended		Current	Underfunded to maintain	Failure Consequence	Safety issue or liability?	General Fund funded only?	Existing Backlog?
	Information Available	Service Standards?	Standards	Standards						
Streets	*	Very Good	No	*	PMI = 100; Now =77	With Measure BB, no	Variable	Medium	No	*
Sidewalks	*	Fair	No	*	Run to fail	Yes	Significant	High	No	*
Signals	*	Good	No	*	Run to fail	Yes	Severe	High	No	*
Street Lights	*	Good	No	*	Run to fail	No (debt financing)	Significant	Medium	No	*
Decorative Walls	*	Poor	No	*	Run to fail	Yes	Minimal	Low	Yes (except LMD)	
Landscaping	*	Fair	No	*	Run to fail	Yes	Minimal	Low	Yes	*
Fountains/Water Features	*	Poor	No	*	Run to fail	Yes	Minimal	Low	Yes	*
Historic Buildings & Property	*	Poor	No	*	Run to fail	Yes	Variable	Low	Yes	*
Storm Drains	*	Fair	No	*	Limited fixes	Yes	Minimal	Low	Yes	*
Streams	*	Fair	No	*	Run to flood	Yes	Severe	High	Yes	*
Trails	*	Good	No	*	PMI = 100	No (debt financing)	Minimal	Medium	No	*
Public Buildings	*	Fair	No	*	Like new	Yes	Significant	Medium	Yes	*

\* Priority of categories of infrastructure and service standards to be recommended to Council and adopted. Existing maintenance backlog to be analyzed based on standard to be adopted.

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IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION AUTHORIZING RE-APPROPRIATION OF FY 2014-15 GENERAL FUNDS, IN THE AMOUNT OF \$100,000, FROM THE DECORATIVE WALL REPLACEMENT PROJECT, PROJECT NO. 2006-54, TO THE PUBLIC INFRASTRUCTURE ASSET MANAGEMENT PROGRAM PROJECT, PROJECT NO. 2016-12

The City Council identified infrastructure rehabilitation as a priority for the city of Livermore. In order to facilitate this priority, City staff compiled data, and developed a matrix outlining the needs and policy actions required for infrastructure rehabilitation, as part of the Public Infrastructure Asset Management Program.

The next step towards fulfilling this priority is to close critical asset information gaps, and analyze various service levels and failure consequences for various types of public infrastructure. The analysis will depend on service levels and chosen priorities. To proceed to this step, funding is required to hire consultants and interns, and to acquire appropriate asset management tools. Funds for this analysis can be re-programmed from unspent funds currently programmed for decorative wall repairs.

**NOW, THEREFORE, BE IT RESOLVED** that the City Council of the City of Livermore authorizes the re-appropriation of \$100,000 in General Funds (Fund 001) in Fiscal Year 2014-15 from the Decorative Wall Repair, Project No. 2006-54, to the Public Infrastructure Asset Management Plan, Project No. 2016-12.

On motion of Council Member \_\_\_\_\_, seconded by Council Member \_\_\_\_\_, the foregoing resolution was passed and adopted on February 9, 2015 by the following vote:

AYES: COUNCIL MEMBERS:  
NOES: COUNCIL MEMBERS:  
ABSENT: COUNCIL MEMBERS:  
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

APPROVED AS TO FORM:



\_\_\_\_\_  
Susan Neer  
City Clerk

\_\_\_\_\_  
Catrina Fobian  
Deputy City Attorney

RESOLUTION NO. \_\_\_\_\_