LIVERMORE
CALIFORNIA

CITY COUNCIL GOALS & PRIORITIES WORKSHOP WHITE PAPER

DATE: March 1, 2021

TO: Honorable Mayor and City Council

SUBJECT: Asset Management and Stormwater

EXECUTIVE SUMMARY

City Council originally adopted Asset Management as a goal in 2015. Over the past six years Council and staff have gained a better understanding of the long-term financial and operational needs of the City's infrastructure. Data collection, program development and public outreach have identified critical gaps and needs in asset maintenance and replacement funding. As a part of Asset Management, Stormwater Management has been identified as a critical program requiring a more focused effort. In addition to a focus on funding long term maintenance and replacement, the focus on Storm Water must also include reducing pollution that enters waterways from stormwater, environmental mitigation, complying with complex environmental regulations, and engaging the community around flood protection and watershed stewardship.

The City of Livermore owns over $3 billion in assets including roads, bridges, water delivery and collection systems, stormwater facilities, buildings, street and traffic lights, among others. Maintaining these assets has typically been based on available general fund dollars with priorities determined by immediate needs rather than proactive actions. Due to limited funding, some maintenance tasks and replacement activities have been deferred, increasing the possibility of preventable infrastructure failure that can ultimately be more costly and disruptive to the public.

Staff recommends Asset Management continue to remain a priority for City Council with an increased emphasis on Stormwater Management. Much progress has been achieved, though additional work is critical to maintain and improve community character, ensure public safety, and encourage economic vitality.

BACKGROUND

The City of Livermore owns a large quantity and wide variety of public infrastructure, all

of which plays a pivotal role in delivering services to the community. Infrastructure funded by the General Fund is valued at over $2.5 billion and includes asset classes such as streets, bridges, sidewalks, streetlights, traffic signals, parks and plazas, landscaped areas, civic buildings, trails, storm drains, waterways, and walls/fences. To repair and replace all these assets on an ongoing basis, the General Fund would need to provide over $40 million per year, four times the amount typically allocated annually. This spending level is projected to result in a backlog of $600 million in deferred repair or replacement projects over the next thirty years. The goal of the Asset Management Program (AMP) is to balance asset repair and replacement needs with the City's limited budgetary resources.

To help address this issue, Council prioritized the AMP as a citywide goal in 2015, developing a risk-based methodology to analyze asset needs. The AMP harnesses this methodology by creating efficient and cost-effective maintenance and replacement strategies and evaluating data such as installation year, condition, material type, cost, and risk factors. Many of these assets are expected to have long lifespans (ranging from 20-100 years) so the AMP emphasizes long-term financial planning to identify properly timed repair and rehabilitation, rather than waiting for preventable infrastructure failure which is more costly and disruptive to the public.

Our AMP has identified Stormwater Management to be the largest single class of underfunded public infrastructure assets and an area that will require special focus as we address our overall AMP priorities. Severe flooding after storms in the Winter (Jan-Feb) of 2017 highlighted the specific risks of deferred stormwater maintenance to the City. During this event, 10 community members were rescued from cars and the total damage is estimated at $20 million, including $11 million to City-owned property such as roads and public trails. These impacts made it clear that deferred maintenance can significantly impact the City's long-term fiscal health due to potential liability for flood events and the ongoing resources required to repair the ensuing damage. Routine flooding in Livermore from smaller rain events makes clear the need for additional resources related to stormwater management.

In addition, the City's stormwater management responsibilities extend beyond the repair and replacement of stormwater assets. This includes reducing the amount of pollution that enters waterways from its stormwater drainage, implementing an environmental mitigation program, complying with complex environmental regulations due to several protected species in Livermore's waterways, and engaging the community around flood protection and watershed stewardship.

Over the past two years, Council and staff have implemented many important actions advancing the AMP, including:

- **Asset Data –** Staff collected and analyzed data across many asset classes and provided risk-based project proposals to Council, including funding requests to construct, repair, or replace access ramps, pavement, signals, and others.

- **Community Asset Management Program (CAMP) Committee –** Recognizing the importance of public input to advance the AMP, Council approved transitioning the 2016 CAMP Committee from detailed data analysis to community engagement. In 2020 Council selected nine members to serve on the new CAMP Committee. This committee is actively providing input on the development and deployment of asset management outreach messages and materials. Members also serve as ambassadors, helping extend the reach and effectiveness of the campaign.

- **Public Outreach** – Staff have worked with the CAMP Committee and consultants to develop an intensive asset management public outreach campaign. The campaign provides education about the variety, quantity, condition, and maintenance costs of community-owned infrastructure. This education, combined with community input, will provide feedback to craft new policies, prioritize rehabilitation projects, create pilot projects for specific asset classes, and develop updated practices related to asset management.

  To date, staff has developed a Communications and Outreach Strategy, brand identity, digital newsletter, online quiz, program website, community survey which received over 1,100 responses, all-ages asset geocache, and an animated educational video.

  Additionally, the City has partnered with Zone 7 Water Agency, LARPD and Tri-Valley cities to implement the Living Arroyos Program and Adopt a Creek Spot Program which engages 1,500 volunteers annually in creek clean-up and restoration projects. Monthly social media posts inform the public about flood risks, stormwater and creek natural and beneficial functions and invite community engagement.

- **Technology and Staffing** - Staff worked to streamline asset data processing, increase internal efficiency, and implement effective maintenance recommendations for near- and long-term asset management.

    - Asset Management Software - Staff executed an agreement and are migrating asset data to NEXGEN which will serve as the City's Enterprise asset management and materials management software. NEXGEN software allows real-time data collection and analysis to help with asset lifecycle planning, risk analysis, and capital project prioritization.

    - Mobile Devices – Funding was approved to provide field staff with smart mobile devices which will prove critical for efficiency, real-time data collection, and remote project analysis. Using these devices, staff will be able to continuously update condition assessments which will systematize asset life cycle planning, risk analysis, and capital project prioritization.

    - Staffing – In May 2020, the City hired an Asset Management Specialist.

As the technician behind the AMP, this staff member is assimilating existing asset data into the City's software systems, identifying and prioritizing data gaps, developing workflow and business practices, and producing the necessary tools to enable informed decision-making regarding the upkeep and replacement of community-owned assets.

- **Stormwater Management Evaluation** – In the aftermath of the 2017 storms, the City began efforts to identify specific needs in this program area. Key shortfalls identified include underfunded routine maintenance; oversight spread across several departments and outsourced to consultants; lack of dedicated City staff with the appropriate expertise; increased regulatory and environmental compliance requirements; and the need to adapt the City's stormwater conveyance system to climate change. Through this effort**,** staff have quantified specific resources necessary to carry out stormwater management activities in a proactive, environmentally beneficial, and cost-effective manner.

POLICY CONSIDERATIONS

While the AMP has made progress over the last two years, there is still much work to be done. Fiscal Year 2021-2023 work program will continue the work identified above with an extra focus on solidifying the form and structure of the AMP. The end goal is to create a sustainable AMP that is integrated in all City activities. Action items include the following:

- **Public Outreach** – Staff and the CAMP Outreach Committee will expand on the newly established public outreach campaign. The goal is to emphasize the importance of the City's deteriorating infrastructure, the lack of enough maintenance funding and build consensus for difficult decisions before there is critical failure. Efforts will include building on existing momentum, adding creative and engaging digital and in-person tools to create foundational awareness, and gather feedback about community priorities. Additionally, the campaign will create a series of visual tools, such as an infrastructure dashboard, to assist Council and community members with the AMP process. Other activities include a cyclical infrastructure scorecard, a spotlight on infrastructure campaign, and asset management plan updates.

- **Asset Data** – Staff throughout the organization will continue to advance the collection of asset data across all infrastructure classes. Staff will continue to utilize Council's approved risk-based criteria to prioritize infrastructure repair and replacement and refine management strategy options. This work will help determine if shifting liability, adjusting maintenance responsibilities, reducing maintenance levels of service, divesting, changing development standards, or other options could minimize or limit future financial obligations.

- **Stormwater Management** – Stormwater facilities are the City's largest asset class when considering the quantity of assets and the required investment needed for maintenance, repairs, and replacement. The allocation of dedicated

resources would enable staff to define what level of service the City could achieve with different levels of funding including staffing, infrastructure repair and replacement, and capital improvement projects. Additional considerations include growing requirements for permit compliance, species protection, climate adaption, and green infrastructure.

- **Program Development –** Asset Management is a complex issue which requires the right tools, participation by all levels of staff, collaboration between various disciplines, multifaceted decision-making, and community support. Staff will develop the form and structure to braid these disparate pieces together with an end-goal to create a fully functioning and sustainable Asset Management Program.

    - Technology and Data - Staff will complete the migration of asset data into NEXGEN. Staff will also implement a comprehensive training program for staff, consultants, and developers to learn how to input new, update existing, and analyze the data. With staff proficient in NEXGEN and regularly updating data, the City will be able to more efficiently maintain infrastructure, identify and recalibrate original assessments that may no longer be accurate, perform gap analyses, and identify future data needs.

    - Interdisciplinary Coordination - Staff will coordinate across disciplines and integrate asset management considerations into various projects, programs, and policies. Additionally, the AMP will evolve based on feedback from other disciplines. For example, the City's infrastructure is designed based on past climate data. The AMP will integrate findings from the City's Climate Action efforts to better predict future infrastructure needs and vice versa. Similarly, the AMP will coordinate with the City's upcoming General Plan Update to ensure infrastructure repair and replacement is interwoven into future project and policy decisions.

    - Stormwater Program Development – Consolidating Stormwater Management oversight has been identified as a necessary first step towards improving the City's ability to manage stormwater in an efficient, proactive manner. Building an integrated Stormwater Management Program within the Public Works Department, including comprehensive oversight over stormwater-related assets, City-owned creeks and flood control channels, regulatory compliance, watershed stewardship, and mitigation sites, would require a dedicated position in Public Works. The program would be structured to promote public safety, environmental responsibility, and regional coordination through an integrated watershed approach.

- **Fiscal Sustainability** – Staff will develop an Asset Management Funding Policy to meet the program's financial needs for future asset rehabilitation, replacement, and/or divestment. This policy will expand Council's existing direction to set-aside $2 million per budget cycle for infrastructure. The policy will provide additional specificity for how the funds should be saved and metrics and parameters for

when and how it can be spent. Additionally, the Council will need to consider how to use debt in the replacement of long-term assets and seek to develop additional new funding sources to preserve current levels of service. Options include tax measures, bonds, or public/private partnerships such as "Adopt" programs (highway or creek clean-up, etc.).

The Stormwater Enterprise Fund generates approximately $1.2 million, which is not enough revenue to cover current stormwater spending. Staff estimates that a full level of stormwater asset maintenance would require an additional $11 million in annual spending.

- **Advocacy** – The City will continue to advocate for grants and programs to catch up on the backlog of asset maintenance, repair, and replacement. Additionally, staff will identify and advocate against unfunded infrastructure mandates that increase the City's financial obligations.

COST

Continuation of the AMP goal will require the current staffing commitment of approximately 2.5 full time equivalents (FTE), including two FTE dedicated to the AMP and .5 FTE comprised of various City staff providing technical support and direction. The AMP will need approximately $300,000 in consultant services to assist with public outreach, data collection, and integration. Additional asset management technology will require a commitment in the range of approximately $30,000-$40,000.

The prioritization of Stormwater Management will ideally include dedicating a staff position to focus exclusively on stormwater related matters. This position would provide comprehensive oversight of the City's stormwater management activities, identify necessary resources, oversee data collection, coordinate with multiple City departments, outside local, state and federal agencies, and identify long-term staffing and annual contractor budgets. Funding needs over the next two years include the following: $175,000 in consultant services for data collection, asset register and GIS updates; $100,000 in consultant services to perform trash load reduction visual assessment required by the Municipal Regional Stormwater Permit (MRP); $7.5 million to $9 million to design and construct additional trash capture devices to comply with the trash load reduction requirements in the MRP; $300,000 in consultant services to support stream maintenance and the renewal of permits for the Stream Maintenance Program, analyze risk data from the stormwater inundation analysis, and work with regional partners to streamline permitting the stream maintenance work; lastly, $300,000 is required for performing stream maintenance.

To adequately fund City needs, overall spending on Asset Management including Stormwater would need to increase between $10 million (to address high risk annual needs only) and $30 million (to address full maintenance needs), annually. Options to raise additional revenue dedicated to asset management include a parcel related fee, City-wide Community Facilities District, a new property or sales tax, expanded efforts to identify and procure federal and state grants or some combination of these tools. To

move forward with any of these options, staff would begin a rate analysis to determine what combination of fees and taxes would be appropriate to better fund the program and explore public support for an asset management revenue measure.

CONCLUSION

The functionality and quality of the City's assets are critical for the City's economic vitality, allowing the City to continue to attract new and maintain existing businesses as well as sustain a high quality of life for residents. The Asset Management Program will allow the City to continue to provide necessary services to its residents and businesses by effectively managing resources to protect the viability of the City's various infrastructure systems.

It is important to build on the AMP's existing momentum to establish a community culture that prioritizes infrastructure maintenance. If Council does not choose this as a goal, there will be fewer opportunities to make a significant impact on the $40 million annual funding needs. Additionally, data collection and analysis will proceed at a slower pace. Together, this slower progress in areas related to outreach, analysis, and funding would lead to a larger unfunded infrastructure liability over time. In addition, without a dedicated focus on Stormwater Management, the City will continue to have limited opportunities to address the City's stormwater challenges, including liability for flooding, climate adaption, channel divestment, deferred maintenance, and growing requirements for stormwater permit compliance.

This white paper identifies the need for additional staff. As noted in the cover staff report, due to the uncertainty of the speed of the economic recovery, staff is not recommending adding positions at this time. If this goal is selected and the economy recovers during this next year, staff would bring addition staffing requests forward during the mid-cycle budget review. If this goal is selected and the economy does not recover, staff would not recommend adding positions and progress in this area would be much slower, as modest resources are reallocated to make progress on this goal.