



City of Homer

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Memorandum 20-084

TO: MAYOR CASTNER AND HOMER CITY COUNCIL
THROUGH: RICK ABOUD, ACTING, CITY MANAGER
FROM: JAN KEISER, PE, JD, DIRECTOR OF PUBLIC WORKS
DATE: JUNE 10, 2020
SUBJECT: PROPOSAL TO UPDATE 1979 DRAINAGE MANAGEMENT PLAN

I. **Issue:** The Drainage Management Plan needs to be updated so it can more effectively guide storm water management in the City of Homer.

II. **Background:**

A. **The existing Drainage Management is outdated.** The purpose of the 1979 Drainage Management Plan was to (1) analyze land development, traffic, population projections and local hydrologic conditions for a 10-year time frame, from 1978 to 1990, and (2) predict what changes may needed to the City's drainage system to address storm water issues. One of the 1979 Plan's specific recommendations was that the Plan would be regularly reviewed and updated.

While much of the basic background in the 1979 Plan is the same, some of the real estate development trends, traffic projections and policy assumptions upon which some of the recommendations in the 1979 Plan were based, have changed. Further, other circumstances have caused drainage channels to shift, drainage water to be concentrated or have otherwise contributed, over time, to trigger adverse downstream impacts.

B. **The City Council identified storm water management as a priority issue.** At its January 2020 Planning Retreat, the City Council identified, as a "Large – 2nd priority", the need "to develop a comprehensive stormwater management plan...that provides adequate and safe drainage of storm water to protect city infrastructure and water quality..."

C. **The City of Homer's 2020-2025 Capital Improvement Plan includes the development of a Storm Water Master Plan.** The Drainage Management Plan proposed in the subject request is not that Master Plan. The difference is a matter

of perspective and detail. A Storm Water Master Plan views development and population growth through a longer term lens and provides a more detailed study of hydrological modeling than a Drainage Management Plan. A Drainage Management Plan focuses on (i) assessing the existing drainage infrastructure's ability to support expected flows by inventorying existing culverts and storm lines; (ii) comparing assumptions made in the previous Drainage Management with current conditions and near-term predictions; (3) updating mapping; and (iv) providing recommendations for remediating immediate concerns.

The subject Drainage Management Plan will go a long way towards addressing many of the City's most pressing drainage issues.

D. Designated funding is available. The City Council, on April 24, 2017, passed Resolution 17-038, which adopted the Homer Accelerated Roads and Trails Program ("HART") Manual. The HART Manual identified a set of nine criteria for projects that may be considered for HART funding. Three of these criteria are:

- Improves life, safety and traffic flow
- Corrects Drainage Problems
- Corrects deficiencies of existing systems
- Reduces maintenance costs

An updated Drainage Management Plan would include recommendations for design/construction standards and specific projects that would address these criteria.

There is currently \$5,995,992.62 in the HART-Roads Fund that could be used to fund the Drainage Management Plan update. I propose a budget of \$90,000 to procure engineering consulting services with the necessary technical expertise. Funds that are not expended from this budget will remain in the HART Fund.

III. Proposal: Engage an engineering consulting firm to update the 1979 Drainage Management Plan for the budget amount of \$90,000 to perform the following scope of work:

- a. Review population growth, land development, traffic flow, and other relevant statistics/patterns to update the assumptions and projections made in the 1979 Drainage Management Plan.
- b. Update the Culvert Inventory in the 1979 Drainage Management Plan.
- c. Review the City's Comprehensive Plan, most current traffic studies, the "green infrastructure" assessment report, best practices related to storm water conveyance and water quality, as well as other relevant technical information to update the following:
 - i. The Design Criteria and other recommendations made in the 1979 Drainage Management Plan, related to design/construction/maintenance of storm water drainage systems
 - ii. The policy recommendations made in the 1979 Drainage Management Plan
- d. Update the Drainage System Maps, particularly to incorporate them into the City's GIS data base.

- e. Review the City’s Road Maintenance Plan and maintenance records relating to culverts, ditches, and other drainage work and make recommendations for improving efficacy of maintenance efforts.
- f. Provide an updated list of recommended drainage improvement projects

Proposed schedule:

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| • Procure/contract engineering services | July 21- August 7, 2020 |
| • Notice to Proceed | August 10, 2020 |
| • Complete Phase I Work Products | September 30, 2020 |
| • Complete Phase II Work Products | November 30, 2020 |
| • Complete Phase III Work Products | March 1, 2021 |
| • Project Completion | April, 1, 2021 |

The work would be phased so that we could start getting information to support designated projects in a timely manner.

IV. Action Recommended: That the City Council pass the proposed ordinance authorizing expenditure of \$90,000 from the HART-Roads Fund to update the City’s 1979 Drainage Management Plan.