



CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Winter Preparedness - Storm Drain System Presentation

MEETING DATE: November 19, 1997

PREPARED BY: Public Works Director

RECOMMENDED ACTION: This presentation is for information only.

BACKGROUND INFORMATION: From the phone calls received during last year's flood at the City's Emergency Operations Center, it was clearly evident that many of the citizens of Lodi are not aware of the City's storm drain system and how it operates, and the possibilities of the Mokelumne River flooding. Staff will be making a presentation outlining the three ways Lodi could possibly experience flooding; i.e., a break in Camanche Dam, the City's storm drain system and retention basins reaching capacity, and Mokelumne River overflowing.

Attached is "Flooding in Lodi?!?", prepared by Richard Prima, which will be included in the next City newsletter. This information, together with additional information, will be presented at the Council meeting. This presentation will be recorded by MediaOne for playback at different times during the winter.

FUNDING: Not applicable.



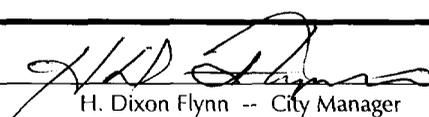
Jack L. Ronsko
Public Works Director

JLR/lm

Attachment

cc: Deputy City Manager
Water/Wastewater Superintendent

APPROVED: _____



H. Dixon Flynn -- City Manager

Flooding in Lodi ???

Scenes of boats floating in streets and rivers overflowing into neighborhoods may be familiar in some communities, but not in Lodi. While some may remember such events in the 1950's, they certainly are not commonly associated with Lodi. However, they can occur given certain conditions. Aside from catastrophic events, such as a dam break, the City of Lodi is vulnerable to flooding in two very different circumstances. One is from high flows in the Mokelumne River due to heavy rains or snowmelt in the Mokelumne River watershed in the Sierra Nevada mountains east of Lodi that could overflow reservoirs. The other is from intense, prolonged rainfall within Lodi that could fill storm drain pipes and eventually our basin/parks. These conditions are described below.

River flooding - Mokelumne River flow is primarily controlled by the Camanche/Pardee dam system operated by East Bay Municipal Utilities District and by the smaller Pacific Gas & Electric Company power dams and reservoirs upstream. These reservoirs have limited Mokelumne River flows to 5,000 cubic feet per second (cfs) even during the major floods of 1986 and 1997. This flow is easily contained within the Mokelumne River channel and Lodi Lake. Based on computer models, which fortunately have not been tested in real life, higher flows of 8,000 to 10,000 cfs would flood the lowest areas along the River flood plain in town. This is primarily the Rivergate area north of Turner Road. The next lowest areas, which are along Lodi Lake, will contain flows to approximately 16,000 cfs. The City has emergency plans for temporary levees and walls that will raise the capacity of the River in town to approximately 28,000 cfs. River elevations from this flow were last seen in 1955 **before** the construction of Camanche Dam and the levees along Edgewood Drive east of Lodi Lake. At that time, river flooding affected property along Turner Road near Lodi Lake.

Rainfall flooding - Local rainfall-generated flooding in Lodi has not been experienced to any great degree since the start of the construction of Lodi's basin/park and storm drain trunk system in the 1960's. This system was the result of a bond issue passed by the voters to provide various municipal improvements. The system collects runoff from streets and carries the water to pump stations. The pumps lift the water to either the Mokelumne River or the Woodbridge Irrigation District Canal, which runs along the west side of town. The basin/parks store excess water that cannot be handled by the pumps. The basins were planned to hold runoff resulting from a storm producing about 5 inches of rain over a two-day period. That is nearly one-third of the average annual rainfall in Lodi. Higher amounts of rain could fill the basins and cause water to stand in the streets near the basins or other relatively low areas connected by storm drain pipes. Since the ground in Lodi generally slopes away from the River to the southwest, with any major street flooding, the water would find its way in that southwest direction. In an extreme situation, this flow could be blocked by high-ground barriers which would allow water to build up to depths of two feet or more on the east side of the barrier until the water finds its way around. In Lodi, such barriers include canal banks and railroad embankments that predate most development. Of course, local flooding could occur at any street curb inlet that is overloaded with runoff or is blocked with leaves or other debris that occasionally gets illegally dumped directly into the storm drains, such as concrete or lawn clippings.

With respect to flood hazards, Lodi is fortunate compared to many communities. This fortune is due to a combination of geography, good planning and the willingness of its citizens to provide for the future.