

Agenda Packet Preparation **TIMELINES** for Regular City Council Meetings held on the 2<sup>nd</sup> & 4<sup>th</sup> Tuesdays of each month:

- Resolutions (other than standard formats for authorizations and approvals), Ordinances & Agreements to Assistant City Attorney via email to review for “approvals as to form” **DUE no later than NOON Two (2) Tuesdays prior to Council meeting dates**
- Agenda Items with related attachments via email to City Clerk **DUE no later than NOON Two (2) Fridays prior to Council meeting dates**
- Agenda Draft review by Mayor, City Manager, Assistant City Attorney, City Clerk **no later than Tuesday mornings One (1) week prior to Council meeting dates**
- Agenda Packets distributed to City Council and Agendas posted/distributed/mailed **on Wednesday afternoons One (1) week prior to Council meeting dates** for compliance with Rohnert Park Municipal Code Section 2.08.050

{This section for City Clerk Use Only}

**ITEM NO. 7**

|                 |   |           |
|-----------------|---|-----------|
| Council:        | X |           |
| Miscellaneous   |   |           |
| Communications  |   |           |
| Agenda: 2/12/08 | X | 2/7/08-TG |
| Copy to:        |   |           |

**CITY OF ROHNERT PARK  
COUNCIL AGENDA ITEM TRANSMITTAL REPORT**

Meeting Date: February 12, 2008  
 Department: Engineering  
 Submitted By: Darrin Jenkins, P.E., City Engineer/Public Works Director  
 Submittal Date: February 4, 2008  
 Agenda Title: Winter Flood Update  
 Requested Council Action: Informational Item

At the February 12, 2008, Rohnert Park City Council meeting I will give a presentation relating to drainage issues in Rohnert Park. Below is an outline identifying some of the subject matter that will be covered.

I. Storm Classification System

- a. What it is and when it was established
  - i. Rainfall intensity atlas developed by National Oceanic and Atmospheric Administration - 1973
  - ii. Flood Control Design Criteria from Sonoma County Water Agency – 1983
- b. Both are generally considered unconservative based on observed data
- c. Creek flows can be more intense than predicted by rainfall data
- d. Updates of both NOAA and SCWA criteria are pending

II. Creek Capacity

- a. Design criteria balances flood safety with cost – 1966 first design criteria
- b. Hinebaugh flood control channel
  - i. Construction compared to design criteria
- c. Copeland flood control channel
  - i. Construction compared to design criteria
- d. Sedimentation of channels reduces flood control capacity
- e. Naturalization of channels reduces flood control capacity
  - i. Habitat is a consideration
  - ii. Aesthetic is a consideration

III. Maintenance challenges

- a. Funding – Zone 1A assessment expired
- b. Permitting – Regional Water Board want mitigation for mitigation – no consideration for people

IV. Rancho Verde Mobile Home Park

- a. Site originally developed as Cotati Naval Airfield – Hinebaugh creek re-routed characteristic delta shape
- b. Site abandoned by US Navy due to flooding – site has been flooding for at least 65 years
- c. Park Design – streets flood in 10 year storm
- d. Performance appears to be consistent with design

- i. New Years Eve 2005 flood was over 100 year storm, so we would expect extensive flooding.
- ii. Jan. 4, 2008 – limited data but appeared to be approximately 10 year storm
- iii. January 18, 2008 – 50 to 75 year storm. Reports from park indicate the creek did not flood it banks, but water backed up into the streets and onto lots in the park
- iv. Hinebaugh creek rerouted and basically flat to slightly uphill. Water doesn't want to flow uphill.
- v. Rancho Verde area is affected by backwater effect in Laguna de Santa Rosa – entire area becomes lake.
- e. Flooding in Rancho Verde can be solved locally using a combination of valves on storm drains, pumps, and a levy or flood wall

V. Why is City Pumping Water from Martin Avenue Industrial Park?

- a. In 2005, flood reached depth of 6 inches inside buildings in Martin Avenue area
- b. Water appeared to come from creek flowing up city storm drains
- c. City project funded by allocation from Zone 1A flood control special assessment which is expiring
- d. City project sealed off storm drains when creek floods
- e. Now when rain falls in industrial park valves could make flooding worse without pump

VI. Is city pumping making flooding materially worse in Rancho Verde?

- a. Maximum discharge of pump 3 cubic feet per second.
- b. Combined Creek flow at Stony Point Road was 3,060 cfs
- c. Prorating for Hinebaugh Creek – estimate 1,200 cfs. So pump added 1/400<sup>th</sup>.
- d. City must weigh 6 inches deep in buildings on Martin Avenue side versus adding 1/500<sup>th</sup> to flow of creek.

VII. Perspectives on development

- a. Southern Laguna de Santa Rosa watershed upstream of Stony Point Road is 42 square miles.
- b. Rohnert Park is 6.8 square miles – 16% of watershed – 84% of watershed is outside Rohnert Park
- c. Published estimates of rainfall on Sonoma Mountain east of Rohnert Park show that rainfall is 50% more intense there than in Rohnert Park
- d. Runoff coefficients for undeveloped areas is 0.3 and residential areas is 0.5
- e. Combining percent of watershed, rainfall intensity, and runoff coefficients, all development in the 50 year history of Rohnert Park can be expected to increase runoff by about 7%.

VIII. Making things better

- a. City has modeled its creek and storm drain systems
- b. A list of projects has been developed
- c. Solution to flooding is storing water in the watershed upstream of Rohnert Park
- d. One project is in design phase right now
- e. City is developing a drainage mitigation fee to require future development to contribute to large projects that mitigate development's contribution to flooding
- f. People can help by voicing concerns to permitting agencies
- g. People can help by supporting funding of flood control projects
- h. People can help by providing honest and accurate information

