

**COUNTY OF SAN LUIS OBISPO BOARD OF SUPERVISORS  
AGENDA ITEM TRANSMITTAL**

(1) DEPARTMENT Public Works	(2) MEETING DATE 12/6/2011	(3) CONTACT/PHONE Dean Benedix, Utilities Division Manager (805) 781-5267	
(4) SUBJECT Status Update on Oceano Flood Mitigation Measures and authorization to manually breach the Southern Arroyo Grande Creek levee during emergency storm response if failure of Northern Arroyo Grande Creek levee is imminent.			
(5) RECOMMENDED ACTION It is our recommendation that your Honorable Board, acting as the San Luis Obispo County Flood Control and Water Conservation Board: 1. Receive a Status Update on the Oceano Flood Mitigation Measures; and, 2. Authorize the Manual Breach of the Southern Arroyo Creek Levee During Emergency Storm Response if Failure of Northern Arroyo Grande Creek Levee is Imminent			
(6) FUNDING SOURCE(S) N/A	(7) CURRENT YEAR FINANCIAL IMPACT N/A	(8) ANNUAL FINANCIAL IMPACT N/A	(9) BUDGETED? N/A
(10) AGENDA PLACEMENT <input type="checkbox"/> Consent <input type="checkbox"/> Presentation <input type="checkbox"/> Hearing (Time Est. _____) <input checked="" type="checkbox"/> Board Business (Time Est. 20 Min.)			
(11) EXECUTED DOCUMENTS <input type="checkbox"/> Resolutions <input type="checkbox"/> Contracts <input type="checkbox"/> Ordinances <input checked="" type="checkbox"/> N/A		(12) BUDGET ADJUSTMENT REQUIRED? BAR ID Number: <input type="checkbox"/> 4/5th's Vote Required <input checked="" type="checkbox"/> N/A	
(13) OUTLINE AGREEMENT REQUISITION NUMBER (OAR) N/A		(14) W-9 <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
(15) LOCATION MAP Attached	(16) BUSINESS IMPACT STATEMENT? No	(17) AGENDA ITEM HISTORY <input type="checkbox"/> N/A Date 10/25/11; D-1	
(18) ADMINISTRATIVE OFFICE REVIEW			
(19) SUPERVISOR DISTRICT(S) District 4 -			

# County of San Luis Obispo



TO: Board of Supervisors

FROM: Public Works  
Dean Benedix, Utilities Division Manager

VIA: Paavo Ogren, Director of Public Works

DATE: 12/6/2011

SUBJECT: Status Update on Oceano Flood Mitigation Measures and authorization to manually breach the Southern Arroyo Grande Creek levee during emergency storm response if failure of Northern Arroyo Grande Creek levee is imminent.

## **RECOMMENDATION**

It is our recommendation that your Honorable Board, acting as the San Luis Obispo County Flood Control and Water Conservation Board:

1. Receive a Status Update on the Oceano Flood Mitigation Measures; and,
2. Authorize the Manual Breach of the Southern Arroyo Creek Levee During Emergency Storm Response if Failure of Northern Arroyo Grande Creek Levee is Imminent

## **DISCUSSION**

In December 2010 significant flooding occurred in the community of Oceano. As a result, Public Works staff has presented flood mitigation recommendations and status updates to your Board throughout 2011. On September 13, 2011, your Board identified seven work priorities and directed staff to return with budget recommendations and other actions necessary to pursue those priorities. Most recently, on October 25, 2011, your Board approved a budget adjustment of \$785,000 to fund those work priorities.

Attachment "A" provides a status update on the seven work priorities.

The following two items continue to be "work in progress," and are those that were previously identified as having the most challenging permit requirements:

- Sand Bar Management for Arroyo Grande Creek
- Pumping and Pipeline Options for Meadow Creek lagoon

In addition, staff has been working with the Office of Emergency Services (OES) to update the Department's Standard Operating Procedures for the Arroyo Grande Creek Levee Failure Emergency Response Plan, which is a component of the County's Dam and Levee Failure Evacuation Plan. As part of that effort, staff has developed the recommendation that your Board authorize a manual breach of the southern levee, if failure or overtopping of the northern levee is imminent, together with other revisions to the response plan.

### Sand Bar Management for Arroyo Grande Creek

Currently the sand bar is open and Arroyo Grande creek is flowing to the Ocean. While we continue to monitor through physical observation, 2011 proved to have unusually consistent flows in Arroyo Grande creek. In addition, early storm events appear to have produced tides and storm swells that have helped to naturally re-open the sand bar. As a result, the need for an emergency permit for sand bar management appears increasingly unlikely this year. Even so, staff continues to maintain communication with permitting agency staff in the event that the need arises. Staff is also continuing efforts on a long-term plan for sand bar management and consultants are currently engaged in those efforts.

### Pumping and Pipeline Options for Meadow Creek Lagoon

The following three components of this work effort are being coordinated through the Purchasing division of the General Services Agency and are currently ongoing:

- Bids on 24" HDPE pipe are scheduled to be received prior to December 6<sup>th</sup> and a verbal update will be provided to your Board during the staff presentation.
- Bids from contractors to install the pipe in Juanita Street are scheduled to be received prior to December 6<sup>th</sup> and verbal update will be provided to your Board during the staff presentation.
- Quotes from "Rain for Rent" for pumping services, utilizing the Juanita Avenue alignment, are included in Attachment "B." Rain for Rent will be retained through a Service Agreement authorized via the purchasing agent.

Upon receiving bids and verifying insurance and other standard requirements, staff will be in a position to issue "Notices to Proceed" at such time that emergency permits are obtained.

In order to promote the issuance of an emergency permit, staff has also identified an alternative action that can be funded within the budget adjustment approved on October 25<sup>th</sup>. The proposed alternative would entail vegetation maintenance within Meadow Creek lagoon. Within the lagoon, reeds have grown across the entire breadth of the lagoon and are impeding the free flow of storm water to the flap gates. By clearing reeds at or above the water level through a cross-section of approximately 10 feet, storm flows from Meadow Creek will be able to flow freely to the flap gates. This alternative would essentially reestablish flow conditions that existed in years prior to the December 2010 flood events. This option was recently deemed viable, subject to emergency permits, because State Parks provided a right of entry and staff has been able to conduct on-site surveillance of the vegetative barrier. As the storm season continues, water level gauges installed in Meadow Creek lagoon will also help quantify

the effect of the vegetative barrier and the degree to which the reeds impede the flow of water and risk flooding of homes. This option may be considered more favorable to permitting agencies since it may be less invasive than the pumping options. It is also anticipated that it will be more feasible to fund on a long-term basis.

Recommendation that your Board Authorize a Manual Breach of the Southern Levee During Emergency Storm Response if Failure of the Northern Levee is Imminent

Attachment "C" is the updated (draft) of the Public Works Department's Standard Operating Procedure (SOP) for the Arroyo Grande Creek Levee Failure Emergency Response Plan. The SOP has been updated in coordination with OES; however, a component should obtain your Board's authorization before the draft is approved. Section 3.2 of Checklist 3 (Page 18) of SOP includes steps to manually breach the southern levee if (and only if) the failure or overtopping of the northern levee is imminent (or in the event it does occur). Coordination with the Sheriff's Watch Commander, verification of evacuations, and related steps are also included in the SOP. The need for authorization is important because the northern levee protects the greater urban population, including pre-manufactured homes, and the wastewater treatment facilities of the South County Sanitation District. In the event of a breach of the northern levee, a significantly increased risk to life, property and environment will exist. In that event, manually breaching the southern levee will reduce those risks and could potentially help reduce an otherwise catastrophic event. Other efforts already in place to reduce this risk include the maintenance of the northern levee at a higher elevation than the southern levee so that overtopping occurs first on the southern levee when storm water flows exceed the channel's capacity.

Other Storm Preparation Efforts

In addition to the seven work priorities identified and funded in previous board actions, Public Works staff has also made additional efforts to prepare for the upcoming storm season. Attachment "D" is a list of those efforts and their status.

**OTHER AGENCY INVOLVEMENT/IMPACT**

The Purchasing division of the General Services Agency has been instrumental in coordinating bids and quotes from private entities. The following agencies have been actively coordinating with Public Works on the current efforts on Oceano Drainage: Oceano Airport, County Parks and Planning Departments, the Office of Emergency Services, the Oceano Community Services District, CalTrans, South County Sanitation District, State Parks Department and the Zone1/1A Advisory Committee.

Numerous permitting agencies, as illustrated in Attachment "E", will be involved in the implementation of the work priorities.

**FINANCIAL CONSIDERATIONS**

No additional funding is requested at this time.

## **RESULTS**

Today's update and recommendations are intended to reduce potential flooding impacts to Oceano during the current storm season, which will help to pursue a safe and healthy community by improving protection against flooding.

File: CF 420.177

Reference: 11DEC06-BB-2

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## **ATTACHMENTS**

1. Vicinity Map
2. Attachment A - Status of Seven Work Priorities
3. Attachment B - Meadow Creek Lagoon - Juanita Pump and Pipeline Rental Summary
4. Attachment C - Draft Update of Arroyo Grande Creek Emergency Response Plan
5. Attachment D - Other Storm Preparation Efforts
6. Attachment E - Environmental Regulatory Agencies & Authorities