



<b>CENTRAL VALLEY NATURAL GAS STORAGE PROJECT</b>	<b>VARIANCE REQUEST FORM</b>	
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<b>Date Required:</b>	July 30, 2011	<b>Variance Request No.:</b>	No. 4 – Modification of Construction Method
<b>Date Submitted:</b>	July 8, 2011	<b>Location:</b>	NRCS Wetland Conservation Easement, just west of the Colusa Trough and south of the Sacramento NWR
<b>Property Owner(s):</b>	Gunnersfield Enterprises	<b>Parcel No.:</b>	APN 012-150-012
<b>Current Land Use:</b>	NRCS Wetland Conservation Easement	<b>Sensitive Resources:</b>	Wetlands and upland habitat for migratory wildlife

**Variance from:** CVGS is now proposing to cross the entire NRCS wetland conservation easement owned by Gunnersfield Enterprises (660-foot-long) easement using the horizontal directional drill (HDD) method. This method will substantially avoid all surface impacts. The original proposed construction method was an open cut trench method. The location of this HDD is shown on Figure 3.

**Description and Justification for Variance:** Boring under the wetland conservation easement would avoid all surface disturbances and the need for long-term monitoring. The bore will be approximately 1,000 feet long and approximately 25 feet below the easement surface. The entry and exit sites will be located approximately 100 to 150 feet east and west of the wetland conservation easement. Central Valley does not anticipate any surface disturbance during the HDD bore under the wetland conservation easement.

**Site Conditions/Comments:** The wetland conservation easement is managed by NRCS as a wetland/upland complex and provides habitat for migratory birds.

Approvals	Date	Name (print)	Signature	Comments
CPUC Compliance Mgr				
Central Valley Construction Manager	7/8/11	Dirk de Bruyn		None
Central Valley Environmental Manager	7/8/11	Susan Bushnell Bergfalk		None

**Prepared by:** Susan Bushnell Bergfalk, Environmental Manager, ICF International      **Date:** July 8, 2011



**CENTRAL VALLEY GAS STORAGE PROJECT**

**Legend**

Princeton Natural Gas Field (Storage Area)	<b>Proposed Observation Wells</b>
Preferred Pipeline Route	S-2: Southam #2
Existing PG&E Line 400/401	S-3: Southam #3
12 KV Connection Line	S-4: Southam #4
	SL-1: Sara Louise #1
	Z-2: Zumwalt #2
	Salt Water Disposal Well





0 2,000 4,000 6,000 feet

Graphics ...0220.10 (5-1-11).tm

**Figure 3**  
**Project Components**

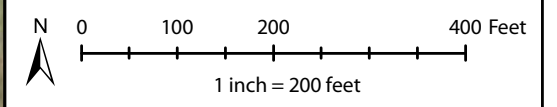
**Alignment Modifications  
Central Valley Gas Storage Project  
July 2011  
Sheet 1 of 3**

**Legend**

-  Modified Alignment Centerline
-  Modified Alignment Impact Areas
-  Original Alignment Centerline
-  Original Alignment Impact Areas



Aerial Source: Rooney Engineering Inc. 2008



Prepared by:  
**ICF**  
INTERNATIONAL

Prepared for:  
**central valley**  
gas storage LLC

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