

## **Regional Categorical Permission Alteration Description – 7. Ditches and Canals**

The Regional Categorical Permission covers the construction, fill, and modification of ditches and canals that meet certain terms and conditions. All ditches must be located outside the projected embankment. Ditches and canals may be a maximum length of 1,000 linear feet. The requester should prepare a geotechnical analysis including seepage (through and underseepage) analysis and stability analysis to determine an appropriate location and depth proposed for the ditch. Embankments must meet requirements of Engineer Manual 1110-2-1913, Design and Construction of Levees, following construction of ditches or canals.

The requester must take every precaution to avoid puncturing the impervious layer during construction. If that is not possible, the ditch must be lined with concrete. The concrete should be placed on a drainage layer to prevent it from cracking from uplift. Weep holes should be added to the concrete lining to relieve any pressure buildup. Other accommodations may be necessary to prevent damage to the levee from underseepage.

Drainage ditches must be maintained to ensure that the ditch is not obstructed by heavy vegetation growth or sedimentation. Ditches must be cleared at regular intervals to restore the original channel design, grade, and cross section. Concrete-lined canals should be routinely inspected for worn joint seals and damage to the concrete and weep holes to ensure they are functioning as designed.

If a ditch is to be filled, the area must be restored by filling the depression in 4–6-inch lifts with compacted material similar to the adjacent soil. The requester is responsible for repairing any damage to the embankment caused by removal of the ditch.

## Regional Categorical Permission Alteration Checklist – 7. Ditches and Canals

**Note:** The following checklist is intended for planning purposes only and includes information that USACE reviewers look for when considering a Section 408 request for ditches and canals under the Regional Categorical Permission. To be reviewed under the Regional Categorical Permission, the proposed project must adhere to all requirements of the Regional Categorical Permission, including the full alteration description (see previous page). The plans and narrative project description should reflect this information.

<input type="checkbox"/> New Installation	<input type="checkbox"/> Replacement	<input type="checkbox"/> Modification	<input type="checkbox"/> Authorize Existing
Maximum length of ditch/canal is 1000 linear feet:			<input type="checkbox"/>
Reference: [ Click to enter document source. Example – plan sheet (p. 4), specs, report. ]			
Comment: [ Click to enter rationale, explanation, unique situation, etc. ]			
Ditch is located outside of projected levee embankment:			No <input type="checkbox"/>
Reference: [ Click to enter document source. Example – plan sheet (p. 4), specs, report. ]			
Comment: [ Click to enter rationale, explanation, unique situation, etc. ]			
Levee will meet the requirements of EM 1110-2-1913, <i>Design and Construction of Levees</i> following construction of the ditch/canal:			<input type="checkbox"/>
Reference: [ Click to enter document source. Example – plan sheet (p. 4), specs, report. ]			
Comment: [ Click to enter rationale, explanation, unique situation, etc. ]			
Ditch will either avoid puncturing the impervious layer or be lined with concrete:		Yes <input type="checkbox"/>	N/A <input type="checkbox"/>
Reference: [ Click to enter document source. Example – plan sheet (p. 4), specs, report. ]			
Comment: [ Click to enter rationale, explanation, unique situation, etc. ]			
If a ditch is to be filled, the area will be restored by filling the depression in 4- to 6-inch lifts with compacted material similar to the adjacent soil:		Yes <input type="checkbox"/>	N/A <input type="checkbox"/>
Reference: [ Click to enter document source. Example – plan sheet (p. 4), specs, report. ]			
Comment: [ Click to enter rationale, explanation, unique situation, etc. ]			
Hydraulic blockage calculation $\geq 1\%$ ?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Reference: [ Click to enter document source. Example – plan sheet (p. 4), specs, report. ]			
Comment: [ Click to enter rationale, explanation, unique situation, etc. ]			
Hydraulic model used for hydraulic analysis?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Reference: [ Click to enter document source. Example – plan sheet (p. 4), specs, report. ]			
Comment: [ Click to enter rationale, explanation, unique situation, etc. ]			

– For Official Use Only below this line –

Comment

### RCP Eligibility Review

<u>Yes</u>	<u>No</u>	<u>Add'l. Info Requested</u>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Environmental Reviewer: _____	Date <small>Click date</small> _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Engineering Reviewer: _____	Date <small>Click date</small> _____