



**COCONINO COUNTY ARIZONA**  
**COMMUNITY DEVELOPMENT DEPARTMENT**  
**Environmental Quality**

Jay Christelman, Director

**Request for Approval of an  
Alternative Design, Setback, Installation or Operational Feature**  
Per R18-9-A312(G)  
December 6, 2019

The purpose of R18-9-A312(G) is to allow the designer of an onsite wastewater system to propose an alternative design, setback, installation or operational feature that will achieve equal or better performance compared to the general permit requirement.

This CCCD EQ application and justification has been partially completed to assist the applicant and their onsite wastewater system designer with a feature that CCCD EQ believes may be applicable to multiple similar situations.

The designer must complete the application and justification. The designer must sign and date or seal the justification as any other Alternative Feature application.

CCCD EQ will review the request as they would any other request. It may be denied for the same reasons that any other request might be denied.

## **HAULED WATER**

ADEQ rule requires the calculation of design flow based upon the number of bedrooms in a residence. Plumbing fixture units are also tabulated and if there is an above normal amount an additional bedroom is added to the number of bedrooms in the residence for the purpose of calculating the design flow and septic tank size. It is assumed that a residence is connected to a water system or has an well (individual or shared).

The transportation expense of hauled water reliably reduces the consumption of water at hauled water residences. Such residences simply cannot afford to haul water at the flow rate set by ADEQ Rule therefore the hydraulic load on the treatment and disposal system will be much less than the value in rule.



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## Request for Approval of an Alternative Design, Setback, Installation or Operational Feature

<b>CCCD EQ:</b>	<b>PERMIT NO.:</b>	<b>DATE</b>
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<b>SITE INFORMATION</b>		
<b>ASSESSOR PARCEL #:</b>	_____	
<b>PROPERTY ADDRESS:</b>	_____	
<b>SUBDIVISION</b>	<b>UNIT</b>	<b>LOT</b>
_____	_____	_____

<b>APPLICANT (person responsible for design, construction, operation and overall compliance):</b>		
<b>NAME / CO.:</b>	_____	
<b>ADDRESS:</b>	_____	
<b>E-MAIL:</b>	<b>PHONE#</b>	_____
_____	_____	_____

<b>DESIGNER / ENGINEER</b>		
<b>NAME / CO.:</b>	_____	
<b>ADDRESS:</b>	_____	
<b>E-MAIL:</b>	<b>PHONE#</b>	_____
_____	_____	_____

<b>1. Rule Citation of Requirement for Which Change is Requested:</b>
AAC R18-9-A314(4) and R18-9-A309(B)(3) Design Flow
<b>2. Description of Requested Change:</b>
Attachments <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>3. Justification for Requested Change:</b>
Attachments <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

<b>Designer Signature with date or Engineer's Seal</b>

## DESIGNER HEADER

**1. Rule Citation of Requirement for Which Change is Requested:**

AAC R18-9-A314(4) and R18-9-A309(B)(3) Design Flow

**2. Description of Requested Change:**

A reduction in the design flow by 1 bedroom (150 gpd).

**3. Justification for the Requested Change:**

ADEQ rule requires the calculation of design flow based upon the number of bedrooms in a residence. Plumbing fixture units are also tabulated and if there is an above normal amount an additional bedroom is added to the number of bedrooms in the residence for the purpose of calculating the design flow and septic tank size.

The calculation assumes that water is readily available at a reasonable expense through a public water system or an well (individual or shared). The water for this property must be hauled by the owner due to the lack of community water system and depth to groundwater. The depth to groundwater makes the drilling of a well economically impossible for an individual property. The large size of properties in the area would make the distribution system economically impossible for a water system or small group that might have the resources to drill the well. Therefore, the residence is expected to haul water through the lifetime of the onsite wastewater system.

The transportation expense of hauled water reduces the consumption of water at hauled water residences more effectively than any other water conservation techniques such that it is a reliable reduction in water consumption. Such residences simply cannot afford to haul water at the flow rate set by ADEQ Rule therefore the hydraulic load on the treatment and disposal system will be much less than the value in rule.

The organic load is not reduced by the conservation of water and will increase the concentration of the waste in the influent. The decreased hydraulic load will improve the function of the treatment system particularly a conventional septic tank which depends on settling and floatation to separate the solids and scum from the effluent. No modification of the minimum septic tank size of 1,000 gallons is proposed.

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Signature

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Date