



COLORADO

Water Quality
Control Commission

Department of Public Health & Environment

NOTICE OF PUBLIC RULEMAKING HEARING BEFORE THE COLORADO WATER QUALITY CONTROL COMMISSION

SUBJECT:

For consideration of the adoption of revisions to the Reclaimed Water Control Regulation, Regulation #84 (5 CCR 1002-84). Revisions proposed by Aurora Water, along with a proposed Statement of Basis, Specific Statutory Authority and Purpose, are attached to this notice as Exhibit 1.

In these attachments, proposed new language is shown with double-underlining and proposed deletions are shown with ~~strikeouts~~. Any alternative proposals related to the subject of this hearing will also be considered.

SCHEDULE OF IMPORTANT DATES

Proponent's prehearing statement due	5/13/2020 5 pm	Additional information below.
Party status requests due	5/20/2020 5 pm	Additional information below.
Responsive prehearing statements due	6/17/2020 5 pm	Additional information below.
Rebuttal statements due	7/8/2020 5 pm	Additional information below.
Last date for submittal of motions	7/17/2020 5 pm	Additional information below.
Notify commission office if participating in prehearing conference by phone	7/17/2020 by noon	Send email to cdphe.wgcc@state.co.us with participant(s) name(s)
Prehearing Conference (mandatory for parties)	7/20/2020 1 pm	C1A Conference Room Department of Public Health and Environment 4300 Cherry Creek Drive South Denver, CO 80246 Google Hangout: +1 718-838-9715 PIN: 660 470 514#
Rulemaking Hearing	8/10/2020 9:30 am	Florence Sabin Conference Room Department of Public Health and Environment 4300 Cherry Creek Drive South Denver, CO 80246

HEARING SUBMITTALS:

For this hearing, the commission will receive all submittals electronically. Submittals must be provided as PDF documents, except for raw data exhibits which may be provided as Excel workbooks. Submittals may be emailed to cdphe.wqcc@state.co.us, provided via an FTP site, CD or flash drive, or otherwise conveyed to the commission office so as to be received no later than the specified date.

PARTY STATUS:

Party status requests must be in writing and must provide:

- the organization's name,
- one contact person,
- a mailing address,
- a phone number, and
- email addresses of all individuals associated with the party who wish to be notified when new submittals are available on the commission's website for review.

In accordance with section 25-8-104(2)(d), C.R.S., any person who believes that the actions proposed in this notice have the potential to cause material injury to his or her water rights is requested to so indicate, along with an explanation of the alleged harm, in their party status request.

PREHEARING AND REBUTTAL STATEMENTS:

Each party must submit a prehearing statement: parties that have proposed revisions attached as exhibits to the notice must submit a proponent's prehearing statement. All other parties must submit a responsive prehearing statement. Proponents may also submit responsive prehearing statements when there are multiple proposals attached to the notice.

Each prehearing and rebuttal statement must be provided as a separate PDF document from any accompanying written testimony or exhibits.

Following the rebuttal statement due date, no other written materials will be accepted from parties except for good cause shown.

Oral testimony at the hearing should primarily summarize written material previously submitted. The hearing will emphasize commission questioning of parties and other interested persons about their written prehearing submittals. Introduction of written material at the hearing by those with party status will not be permitted unless authorized by the commission.

PREHEARING CONFERENCE:

Attendance at the prehearing conference is mandatory for all persons requesting party status. Parties needing to participate by telephone are encouraged to notify the commission office prior to the prehearing conference. Remote participants can call 1-718-838-9715 with PIN: 660 470 514# to access the Google Hangout.

Following the cut-off date for motions, no motions will be accepted, except for good cause shown.

PUBLIC PARTICIPATION ENCOURAGED:

The commission encourages input from non-parties, either orally at the hearing or in writing prior to the hearing. Written submissions should be emailed to cdphe.wgcc@state.co.us by July 29, 2020.

SPECIFIC STATUTORY AUTHORITY:

The provisions of sections 25-8-202, 25-8-205, and 25-8-205.8 C.R.S., provide the specific statutory authority for consideration of the regulatory amendments proposed by this notice. Should the commission adopt the regulatory language as proposed in this notice or alternative amendments, it will also adopt, in compliance with section 24-4-103(4) C.R.S., an appropriate Statement of Basis, Specific Statutory Authority, and Purpose.

Dated this 13th day of April, 2020 at Denver, Colorado.

WATER QUALITY CONTROL COMMISSION

A handwritten signature in black ink, appearing to read 'Trisha Oeth', written over a horizontal line.

Trisha Oeth, Administrator

Exhibit 1
Aurora Water
Regulation #84

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Commission

REGULATION NO. 84 - RECLAIMED WATER CONTROL REGULATION

5 CCR 1002-84

[Editor's Notes follow the text of the rules at the end of this CCR Document.]

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84.5 DEFINITIONS

The following definitions shall apply:

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- (28) Lay-flat hose means an industrial, light weight, heavy duty, flexible hose with supporting fabric built into the walls, which lies flat when empty that is used to transfer large volumes of liquid under pressure. Numerous lengths of hose may be connected using fittings that produce leak-free connections. Lay-flat hoses used to convey reclaimed water must be selected, designed, installed, implemented and maintained in accordance with best industry practices appropriate for the system and conditions present and the manufacturer's specifications (including installation and implementation specifications) and to comply with the requirements in Regulation 84.
- (29) Localized Reclaimed Water Treatment System or Localized System means a domestic wastewater treatment works that receives domestic wastewater from a single building, multiple buildings within a single property or area bounded by dedicated streets or ways, or a district designated by a City or County for treatment to produce reclaimed water for beneficial use where the source water does not have meaningful inputs from industrial or other diluting sources.
- (2930) Management User means the legally responsible entity that manages a Resident-Controlled Food Crop Irrigation site that is responsible for educating residents, and, to the maximum extent practicable, ensuring that residents attain and maintain compliance with Regulation 84. The Management User has legal ability (regulation, ordinance, contract, or other acceptable mechanism) to have reclaimed water service terminated to a resident if the resident fails to comply with Regulation 84. A Management User can be a Treater.
- (3031) Manual Non-Public Vehicle Washing means the cleaning of vehicles and associated equipment, such as trailers, where any or all of the following are applied manually in the cleaning process: spray water, cleaning products, and/or rinse water; where there is no public access to the vehicle washing facility and only limited and controlled contact with reclaimed water by trained workers.
- (3432) Membrane Filtration means a pressure or vacuum driven separation process in which particulate matter larger than 1 micrometer is rejected by an engineered barrier, primarily through a size-exclusion mechanism, and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test. This definition includes the common membrane technologies of microfiltration, ultrafiltration, nanofiltration, and reverse osmosis.

- (~~3233~~) Non-Commercial Food Crop Growing Operation means any operations growing food crops that are not considered a “covered farm” under the Food Safety Modernization Act, Produce Safety Rule, 21 CFR 112.4.
- (~~3334~~) Non-Discharging Construction and Road Maintenance means the use of reclaimed water for nonpotable applications where water is required for cooling, wetting, dust suppression, or other construction and road maintenance activities, where there is no public exposure to reclaimed water under normal operations and only limited and controlled contact with reclaimed water by trained workers.
- (~~3435~~) Non-Evaporative Industrial Processes means the use of water in an industrial process where water is not evaporated in the process and is used within a contained system, where there is no public exposure to reclaimed water under normal operations and only limited and controlled contact with reclaimed water by trained workers.
- (~~3536~~) Non-edible Hemp means hemp that is used for cover crop, fiber and other products that are not for human consumption.
- (~~37~~) Oil and Gas Operations means exploring for oil and gas, including conducting seismic operations and the drilling of test bores; siting, drilling, deepening, recompleting, reworking, or abandoning a well; producing operations related to any well, including installing flowlines; the generating, transporting, storing, treating, or disposing exploration and production wastes; and any constructing, site preparing, or reclaiming activities associated with such operations. (see [COGCC Rules and Regulations - Series 100 - Definitions](#))
- (~~3638~~) Person means an individual, corporation, partnership, association, state or political subdivision thereof, federal agency, state agency, municipality, commission, or interstate body.
- (~~3739~~) Point of Compliance means a point identified by the treater in the reclaimed water treatment or transmission system after all treatment has been completed and prior to dilution and blending of water has occurred. If reclaimed water is used for indoor nonpotable uses within a building where plumbing fixtures are accessible by the general public, the “point of compliance” for disinfection residual is at the location where water is delivered to the occupied premises.
- (~~3840~~) Potable Water has the same meaning as “Finished Water” as defined in section 11.3(32) of the Colorado Primary Drinking Water Regulations, 5 CCR 1002-11.
- (~~3941~~) Reclaimed Water is domestic wastewater that has received secondary treatment by a domestic wastewater treatment works (centralized system or a localized system) and such additional treatment as to enable the wastewater to meet the standards for approved uses.
- (~~4042~~) Resident-Controlled Landscape Irrigation means irrigation of areas of grass, trees, and other vegetation located on the property dedicated to a single residential property (e.g., the yard for a single residence such as a house, row home or duplex).
- (~~4143~~) Resident-Controlled Food Crop Irrigation means irrigation of vegetables, fruits and other food crops located on the property dedicated to a single residential property (e.g. the garden for a single residence such as a house, row home or duplex).
- (~~4244~~) Restricted Access means controlled and limited access to the areas where reclaimed water meeting Category 1 standards, as defined in section 84.7, is used.
- (~~4345~~) Secondary Treatment means the biological treatment of wastewater to meet BOD₅, total suspended solids (“TSS”); CBOD₅; and Oil and Grease numeric limitations in section 62.4 of Regulation #62.
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84.9 AUTHORIZED RECLAIMED WATER USES

Table A: Approved Uses of Reclaimed Water

Approved Uses	Category 1	Category 2	Category 3	Additional Conditions Required 84.9(A)
INDUSTRIAL				
Evaporative Industrial Processes	Allowed	Allowed	Allowed	1,31
Washwater Applications	Not Allowed	Allowed	Allowed	2,3,7,31
Non-Discharging Construction and Road Maintenance	Allowed	Allowed	Allowed	3,7,31
<u>Oil and Gas Operations</u>	<u>Not Allowed</u>	<u>Allowed</u>	<u>Allowed</u>	<u>13, 16(a), 31, 34, 37, 38, 39, 40, 41</u>
Non-Evaporative Industrial Processes	Allowed	Allowed	Allowed	7,31
LANDSCAPE IRRIGATION				
Restricted Access	Allowed	Allowed	Allowed	
Unrestricted Access	Not Allowed	Allowed	Allowed	3,4,31
Resident-Controlled	Not Allowed	Not Allowed	Allowed	3,4,5,31
COMMERCIAL				
Zoo Operations	Allowed	Allowed	Allowed	31
Commercial Laundries	Not Allowed	Allowed	Allowed	7,31
Automated Vehicle Washing	Not Allowed	Allowed	Allowed	3,8,31
Manual Non-Public Vehicle Washing	Not Allowed	Allowed	Allowed	3,8,31
FIRE PROTECTION				
Nonresidential Fire Protection	Not Allowed	Allowed	Allowed	6,31
Residential Fire Protection	Not Allowed	Not Allowed	Allowed	6,31
AGRICULTURAL IRRIGATION				
Non-Food Crop Irrigation and Silviculture	Allowed	Allowed	Allowed	3,31
Commercial Food Crop Growing Operation	Not Allowed	Allowed	Allowed	3,13,14,15,16,17,20,21,22,25,29,30,31

Resident-Controlled Food Crop Irrigation	Not Allowed	Not Allowed	Allowed (Category 3 Plus)	3, 5, 13,14,15, 20,22,23,24,25,26,27,28,31,33,35
Non-Commercial Food Crop Growing Operation	Not Allowed	Not Allowed	Allowed (Category 3 Plus)	3,13,14,15,16,17,18,19,20,22,25,31,32,33,34,36
Non-Edible Hemp Irrigation	Allowed	Allowed	Allowed	3,13,15,16,17,20,21,25,30,31
Edible Hemp Irrigation	Not Allowed	Not Allowed	Allowed (Category 3 Plus)	3,13,15,16,17,20,21,22,25,30,31
TOILET AND URINAL FLUSHING	Not Allowed	Not Allowed	Allowed (Category 3 Plus)	5,9,10,11,31

(A) Additional Conditions Required. In addition to the conditions for use of reclaimed water listed in section 84.9, the Division will include the following best management practices in the NOA for the associated uses listed in Table A:

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(13) All reclaimed water Users and Cultivators must undergo annual advanced training that at minimum provides the following information:

- Definition of reclaimed water and why it is not suitable for drinking.
- The best management practices that are required for applicable uses in 84.9(A).
- Produce and hand washing with potable water is required after harvesting produce, irrigating with reclaimed water and interacting with soils irrigated with reclaimed water. Hand sanitizing is not an equivalent to hand washing.
- For Oil and Gas Operations, advanced training shall be provided to all staff managing reclaimed water or implementing Additional Conditions or the User Plan to Comply prior to their initial shift on the site and annually thereafter.

Advanced training shall be conducted by either the Treater, Site Manager or Management User. The Division can require additional advanced training requirements through the User NOA. Training provided must be adequate to result in individuals being knowledgeable of the requirements, and capable of implementation of the BMPs required by the User Plan to Comply and the User NOA. Signatures confirming that advanced training was received by staff responsible for managing reclaimed water or implementing Additional Conditions or the User Plan to Comply must be available for Division and/or Treater review during any site inspection.

(14) On a quarterly basis, treaters must monitor for TDS, submit the results (using mg/L) to the Division through Discharge Monitoring Reports, and email or mail the results to all food crop irrigation users. These results can be provided within a larger report (like a Consumer Confidence Report).

- (d) Inspect the hose daily for leaks. If a leak is detected or discovered, immediately discontinue use until the leak has been properly repaired such that the leak is no longer present. Records of daily leak inspections must be maintained for a minimum of one year and kept onsite for Treater and Division review;
- (e) Install and operate appropriate leak detection equipment;
- (f) All spills requiring reporting in accordance with §25-8-601 (2), CRS must be reported to CDPHE using the toll-free 24-hour environmental emergency and incident reporting line within 24 hours of being discovered. Spills must also be reported to the Treater within 24 hours.
- (g) To protect potable water sources, backflow prevention or cross connection control equipment must be used when loading water from a potable -water source.
- (h) If lay-flat hose is extended through private property, property owners must be notified that non-potable, reclaimed water is being delivered through the lay-flat hose and that the hose should not be tampered with.
- (i) When lay-flat hose intersects a roadway, a hose protector ramp must be used to prevent vehicles and other equipment from directly driving over the hose.
- (38) Vehicles and tank trailers used for hauling of reclaimed water must follow the following requirements:

 - (a) The exterior of the tank shall be labelled with signage indicating the tank is transporting non-potable water.
 - (b) The driver is required to notify the Treater and User of any spills of reclaimed water. All spills requiring reporting in accordance with §25-8-601(2) CRS must be reported to CDPHE using the toll-free 24-hour environmental emergency and incident reporting line.
 - (c) To protect potable water supplies, backflow prevention or cross connection control equipment must be used when loading water from a potable water source into tank labeled as non-potable.
- (39) When reclaimed water is delivered through temporary conveyances, the conveyance must meet the definition of lay flat hose as defined in Section 84.5(28) or be constructed of HDPE material.
- (40) Disposal of reclaimed water from any storage, conveyance or other source whereby reclaimed water was used shall be done in such a manner that does not create a point source discharge requiring a NPDES or CDPS permit or does not create a spill that would require reporting in accordance with §25-8-601(2) CRS.
- (41) The Division and Treaters must be notified at least one (1) week prior to the installation of any lay-flat hose that is to be used for conveyance of reclaimed water. The Division and Treaters must also be notified within 24 hours of the removal of any lay-flat hose that has been utilized for conveyance of reclaimed water.

84.10 TREATER, MANAGEMENT USER AND SITE MANAGER RESPONSIBILITIES FOR NON-COMMERCIAL GROWING OPERATION, RESIDENT-CONTROLLED FOOD CROP IRRIGATION AND EDIBLE AND NON-EDIBLE HEMP.

to comply, and/or to perform monitoring and analysis as may be required in section 84.11 for localized systems, and section 84.12.

- (3) For indoor uses of reclaimed water, the user has had a certified cross-connection control technician complete a test to detect uncontrolled cross connections.

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84.28 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: AUGUST 10, 2020 RULEMAKING; EFFECTIVE NOVEMBER 10, 2020

The provisions of sections 25-8-202, 25-8-205(1), and 25-8-308(1)(h), C.R.S., provide the specific statutory authority for adoption of amendments to this regulation. The Commission also adopted, in compliance with section 24-4-203(4), C.R.S., the following statement of basis and purpose.

Basis and Purpose

Recognizing the importance of reclaimed water as a resource within the State of Colorado’s Water Plan as a means to help offset the demand on other water resources, the Commission considered and adopted changes to Regulation 84 on August 10, 2020 to include Oil and Gas Operations as an approved use under use categories 2 and 3.

Oil and Gas Operations is a growing industry within Colorado and as the industry expands along the Front Range of Colorado, it is creating opportunities for municipalities, such as the City of Aurora, to provide alternative water supplies beyond those typically used by the industry. The Commission acknowledges the use of reclaimed water can help reduce the demand on other sources, such as groundwater and surface water, that can more readily be utilized for potable purposes. As such, the Commission is adopting several changes to Regulation 84 that will regulate the use of reclaimed water within Oil and Gas Operations processes. The changes are an important step toward furthering the goals of the State’s Water Plan while ensuring the protection of public health and environment. The changes include several new definitions, new Additional Conditions to address the use of reclaimed water within Oil and Gas Operations, and new requirements to address user plans to comply for specific oil and gas operation sites.

I. Definitions

The Commission has included two new definitions; one for the new use category of “Oil and Gas Operations” and one for “lay flat hose”. The “Oil and Gas Operations” definition is meant to build continuity between regulations, and clarity on what is included in the new use category. “Lay flat hose” is a common hose used within the oil and gas industry that can be useful for Treaters to provide a temporary distribution system for users. Several new best management practices (Additional Conditions) have been introduced within the regulation surrounding how reclaimed water is used by approved Users. The new definitions were added to reflect references for the new requirements and approved industrial uses in Regulation 84.

Section 84.5 (28) - Lay Flat Hose is a staple for industries to transport liquids quickly, efficiently, and timely for temporary events. Oil and gas operation’s is a growing industry within Colorado that has unique demands on water such that they often require very large volumes of water for a short period of time, and disposal after usage removes the water from the natural water cycle. For instance, a site may need 9 – 12 million gallons of water over a period of 5 – 7 days to complete a single well. The demand for water to any given Oil and Gas Operations site ends up being temporary in nature; therefore, the infrastructure necessary to deliver the water also tends to be temporary in nature as opposed to more permanent infrastructure. The use of temporary lay flat hose helps to deliver the water supply, but also helps reduce

road traffic and minimize environmental impacts that would result from the multitude of trips necessary to deliver large amounts of water over a short period.

Section 84.5 (37) - The definition of Oil and Gas Operations replicates the definition adopted by the Colorado Oil and Gas Conservation Commission (COGCC) Rule 100 Series - Definitions. This develops continuity between the regulations, which will be helpful to all parties involved with this regulation, since COGCC regulations will oversee the disposal of used reclaimed water from Oil and Gas Operations Users.

Section 84.5 (46) – The definition of Site was modified to include conveyance and storage, under the operational control of the user. This was necessary since temporary conveyance systems could be used by Oil and Gas Operations and other approved uses.

II. The commission approved the new use of Oil and Gas Operations and added it to section 84.9 Table A under Industrial uses. This requires the User to manage the reclaimed water in accordance with a Notice of Authorization under Regulation 84. Oil and Gas Operations primarily intends to use reclaimed water as the base liquid for drilling muds or producing hydrologic fracturing fluids for injection down hole. Category 2 and Category 3 water are allowed for this new use. Category 1 water will not be allowed for this new use.

III. The Commission included several Additional Conditions specific toward the use of reclaimed water within the use category of Oil and Gas Operations.

Section 84.9 (A) Additional Conditions Required, was revised with the following modifications:

Section 84.9 (A) (13) added an Additional Condition requiring advanced training of staff prior to their initial shift and annually thereafter. This is protective to the staff by informing them that reclaimed water was being used on site and the procedures they need to follow to be safe when working with reclaimed water. The training would include implementing Additional Conditions and the requirements in the User Plan to Comply (UPC).

Section 84.9 (A) (16) The signage Additional Condition was modified by removing the phrase “to irrigate crops”. This modification removes this narrow interpretation that this Additional Condition is only applicable “to irrigate crops”. This Additional Condition can be applied to a majority of approved uses and can protect the public through notifications that reclaimed water is used at the location.

Section 84.9 (A) (37) Additional Conditions for lay-flat hoses, couplings, and other appurtenances were created for lay flat hose deployment and usage. Lay flat hose will be installed in accordance to industry standards for integrity utilizing hydrostatic pressure testing procedures. The requirement includes cross-connection control methods be implemented when connecting to other water sources. The User is required to install and maintain leak detection equipment on the lay flat hose and perform daily inspection of the entire transmission line for spill prevention and countermeasure. The hose will be marked as non-potable water transmission line and signage, identifying the liquid being transmitted within the hose, is required at the mid-point of each section of hose or approximately every 350 feet. These requirements serve to notify the public, Users, and Treaters about the content within the hose. These preventive and notification requirements are industry standards that are required during installation of more permanent pipelines and applicable to temporary conveyance systems. The signage and labeling requirements protect the public by informing them of the contents of the hose and notifying them that it is non-potable water.

Section 84.9 (A) (38) Additional Conditions for vehicles and tank trailers were created for hauling reclaimed water. The requirement includes cross-connection control methods that must be implemented when loading the tanker, labelling the tanker as containing non-potable water, and spill reporting requirement. These requirements will protect other water supplies that maybe accessed by the hauler and protect the public by notifying them of the contents in the tank. The potential for spills exists with any

transfer or transportation operation, hence the requirement for reporting a spill as required by CRS §25-8-601(2).

Section 84.9 (A) (39) An additional Condition for delivery through temporary conveyances was created to reiterate the requirement that the conveyance system needs to comply with the definition of lay-flat hose. The conveyance shall be deployed utilizing the industry standards identified in the definition of lay-flat hose and the associated Additional Condition. This clarifies that the temporary conveyances shall be protect the environment by following the industry standards and that the public will be able to identify the contents in the conveyance.

Section 84.9 (A) (40) An Additional Condition for disposal of reclaimed water was created for managing the disposal of reclaimed water from any storage, conveyance or other source. The User is required to dispose of reclaimed water in a manner that doesn't create a point source discharge of pollution into State Waters or is a reportable spill as specified in §25-8-601(2) CRS. This requirement protects the environment and public by advising the User of the need to properly dispose of any excess reclaimed water or to obtain a permit for a point source discharge.

Section 84.9 (A) (41) The Additional Condition for notification of conveyance deployment, usage, or removal requires the User to notify the Division and Treater when a temporary conveyance is being used or is being withdrawn for service. This notification allows the Treater to manage the reclaimed water by knowing when and where reclaimed water is used and to schedule compliance activities as necessary. The Division would receive the notification for use in scheduling their compliance activities.

IV. The Commission adopted specific treater and site manager requirements for the Oil and Gas Operations use category to ensure responsibilities and expectations are clear between the Treater and the User.

Section 84.10 (D) was added to detail the responsibilities of the Treater and Site Manager of Oil and Gas Operation sites. The Treater is responsible for reviewing the User Plan to Comply (UPC) for completeness, accuracy, recordkeeping, inspections, and implementation of Additional Conditions. The Site Manager is responsible for adherence to NOA and UPC requirements. Specifying the responsibilities supports the overall hierarchal structure of Regulation 84 and clearly identifies accountability of the parties involved with managing reclaimed water.

Section 84.12 (J) was added to provide specific requirements in the User Plan to Comply for Oil and Gas Operation sites. These include, contact information, description of how and where reclaimed water is used, cross-connection control requirements, hydrostatic testing requirements for temporary lay-flat hose or pipelines, and labelling requirements for temporary lay-flat hose or pipelines. This requirement was developed by modifying the requirements in Section 84.12 (B) and adding details specific to Oil and Gas Operations. The baseline information is the same for all Users, however the specifics associated with conveyance systems and labeling temporary lay flat hose or pipelines is necessary to protect the environment and notify the public.