



FROM: Kristin Owen, Planning Administrator
TO: Planning & Zoning Commission
RE: Nutrient Pathogen Waiver Request
MEETING: October 18, 2016

Nutrient Pathogen Waiver for Ross Meadow Subdivision

Cleon Ross has applied for a Concept Review for a 2-lot subdivision. During our pre-application meeting with the applicant's engineer, AW Engineering, it was determined that the property is located in the Wetlands and Waterways Overlay. This Overlay requires a Nutrient Pathogen Evaluation to be conducted for the Preliminary Phase of a subdivision application.

Title 9 identifies a waiver process for the Nutrient Pathogen Evaluation if the study is not required by IDEQ or Eastern Idaho Public Health. For this application, neither IDEQ nor EIPH require a Nutrient Pathogen Evaluation, which makes this application eligible for the waiver.

The Board of County Commissioners may approve a Nutrient Pathogen Evaluation Waiver after they receive a recommendation from the Planning & Zoning Commission.

Comments to Consider

This waiver request was sent to the Teton County Technical Reviewer for NP Studies, Jen Zung, and it was sent to Flint Hall with Idaho Department of Environmental Quality. I did not send it to Mike Dronen with Eastern Idaho Public Health because Mike has told me multiple times that EIPH does not require NP Studies. They only refer to IDEQ.

The Teton County Technical Reviewer stated she would not recommend granting a waiver unless the applicant can show that Trail Creek is not hydraulically connected to any shallow or perched groundwater that could be contaminated by the proposed leach fields.

Mr. Hall, IDEQ, suggests that the developer be requested to collect ground water samples for total nitrite plus nitrate from the nearest domestic wells up gradient and down gradient from the proposed subdivision to provide a basis for the assumption that there will be no impact.

The applicant has commented that they would be willing to use advanced septic systems on the property.

Possible Motions

Recommending Approval

I move to recommend the Nutrient Pathogen Evaluation Waiver Request for Ross Meadow Subdivision to the Board of County Commissioners for approval, with the following condition(s):

1. The applicant must collect ground water samples for total nitrite plus nitrate from the nearest domestic wells up gradient and down gradient from the proposed subdivision to provide a basis for the assumption that there will be no impact.
2. The applicant must show that Trail Creek is not hydraulically connected to any shallow or perched groundwater that could be contaminated by the proposed leach fields.

Recommending Denial

I move to recommend the Nutrient Pathogen Evaluation Waiver Request for Ross Meadow Subdivision to the Board of County Commissioners for denial, for the following reason(s):

1. ...

Attachment

1. NP Waiver Request for Ross Meadow Subdivision

Teton Area, Idaho and Wyoming

13417—Badgerton-Arimo complex, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 1vgn
Elevation: 5,890 to 6,570 feet
Mean annual precipitation: 16 to 18 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 20 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Badgerton, rarely flooded, and similar soils: 50 percent
Arimo and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Badgerton, Rarely Flooded

Setting

Landform: Flood plains on fan remnants
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

A - 0 to 9 inches: loam
AB - 9 to 17 inches: very gravelly loam
BC - 17 to 31 inches: extremely gravelly loamy sand
C1 - 31 to 43 inches: extremely gravelly loamy coarse sand
C2 - 43 to 60 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum in profile: 4 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 6c
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: B
Ecological site: RIVERBOTTOM 10-18 POAN3/LECI4 (R013XY049ID)

Description of Arimo

Setting

Landform: Stream terraces on fan remnants

Custom Soil Resource Report

Down-slope shape: Linear
Across-slope shape: Linear, convex
Parent material: Mixed alluvium with loess influence

Typical profile

Ap1 - 0 to 2 inches: loam
Ap2 - 2 to 13 inches: loam
Bw - 13 to 15 inches: loam
Bk1 - 15 to 25 inches: loam
Bk2 - 25 to 29 inches: very gravelly sandy loam
2Bkq - 29 to 35 inches: extremely gravelly loamy sand
2C - 35 to 60 inches: extremely gravelly sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 36 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): 4c
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Ecological site: LOAMY 12-16 - Provisional (R013XY001ID)

13425—Badgerton-Alpine complex, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1vggt
Elevation: 6,040 to 6,680 feet
Mean annual precipitation: 16 to 26 inches
Mean annual air temperature: 36 to 44 degrees F
Frost-free period: 20 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Badgerton, rarely flooded, and similar soils: 55 percent
Alpine and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Custom Soil Resource Report

Description of Badgerton, Rarely Flooded

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear, concave
Parent material: Mixed alluvium

Typical profile

A - 0 to 9 inches: loam
AB - 9 to 17 inches: very gravelly loam
BC - 17 to 31 inches: extremely gravelly loamy sand
C1 - 31 to 43 inches: extremely gravelly loamy coarse sand
C2 - 43 to 60 inches: very gravelly sandy loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum in profile: 4 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 6c
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: B
Ecological site: RIVERBOTTOM 10-18 POAN3/LECI4 (R013XY049ID)

Description of Alpine

Setting

Landform: Fan remnants, stream terraces
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Mixed alluvium

Typical profile

A1 - 0 to 2 inches: gravelly loam
A2 - 2 to 11 inches: very gravelly loam
ABk - 11 to 17 inches: extremely gravelly loam
Bk - 17 to 25 inches: extremely gravelly sandy loam
Bkq - 25 to 31 inches: extremely gravelly loamy sand
Bk' - 31 to 35 inches: extremely gravelly sandy loam
Bkq' - 35 to 44 inches: extremely gravelly loamy sand
Bk1" - 44 to 51 inches: extremely gravelly sandy loam
Bk2" - 51 to 60 inches: gravel

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches

Custom Soil Resource Report

Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 75 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 2.2 inches)

Interpretive groups

Land capability classification (irrigated): 4c
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: SHALLOW GRAVELLY 12-16 ARTRV/PSSPS (R013XY004ID)

Minor Components

Foxcreek, wooded

Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear, concave
Ecological site: RIVERBOTTOM 10-18 POAN3/LECI4 (R013XY049ID)

Redfish, wooded

Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Concave, linear
Ecological site: RIVERBOTTOM 10-18 POAN3/LECI4 (R013XY049ID)

13430—Alpine-St. Anthony complex, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 1vghp
Elevation: 5,910 to 6,480 feet
Mean annual precipitation: 16 to 18 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 50 to 90 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Alpine and similar soils: 50 percent
St. anthony and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Custom Soil Resource Report

Description of Alpine

Setting

Landform: Fan remnants, stream terraces

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Parent material: Mixed alluvium

Typical profile

A1 - 0 to 2 inches: gravelly loam

A2 - 2 to 11 inches: very gravelly loam

ABk - 11 to 17 inches: extremely gravelly loam

Bk - 17 to 25 inches: extremely gravelly sandy loam

Bkq - 25 to 31 inches: extremely gravelly loamy sand

Bk' - 31 to 35 inches: extremely gravelly sandy loam

Bkq' - 35 to 44 inches: extremely gravelly loamy sand

Bk1" - 44 to 51 inches: extremely gravelly sandy loam

Bk2" - 51 to 60 inches: gravel

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 75 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Very low (about 2.2 inches)

Interpretive groups

Land capability classification (irrigated): 4c

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: B

Ecological site: SHALLOW GRAVELLY 12-16 ARTRV/PSSPS (R013XY004ID)

Description of St. Anthony

Setting

Landform: Swales on fan remnants

Down-slope shape: Concave, linear, convex

Across-slope shape: Linear, concave

Parent material: Gravelly mixed alluvium

Typical profile

A1 - 0 to 7 inches: gravelly loam

A2 - 7 to 12 inches: gravelly loam

Bw - 12 to 23 inches: very gravelly sandy loam

BC - 23 to 47 inches: extremely gravelly coarse sandy loam

2C - 47 to 60 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Custom Soil Resource Report

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Low (about 3.5 inches)

Interpretive groups

Land capability classification (irrigated): 4c

Land capability classification (nonirrigated): 4s

Hydrologic Soil Group: B

Ecological site: SHALLOW GRAVELLY 12-16 ARTRV/PSSPS (R013XY004ID)



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Dominant Ecological Site Map

Ecological Sites by Map Unit Component Table

Basic Options

Ecological Site Type Rangeland

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R013XY001ID — LOAMY 12-16 - Provisional

R013XY004ID — SHALLOW GRAVELLY 12-16 ARTRV/PSSPS

R013XY049ID — RIVERBOTTOM 10-18 POAN3/LEC14

Map — Dominant Ecological Site — Rangeland



Warning: Soil Ratings Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:24,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Table — Ecological Sites by Map Unit Component — Rangeland

Teton Area, Idaho and Wyoming					
Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
13417	Badgerton-Arimo complex, 0 to 2 percent slopes	Badgerton, rarely flooded (50%)	R013XY049ID — RIVERBOTTOM 10-18 POAN3/LEC14	14.1	66.0%
		Arimo (40%)	R013XY001ID — LOAMY 12-16 - Provisional		
13425	Badgerton-Alpine complex, 2 to 8 percent slopes	Badgerton, rarely flooded (55%)	R013XY049ID — RIVERBOTTOM 10-18 POAN3/LEC14	1.2	5.4%
		Alpine (35%)	R013XY004ID — SHALLOW GRAVELLY 12-16 ARTRV/PSSPS		
		Foxcreek, wooded (5%)	R013XY049ID — RIVERBOTTOM 10-18 POAN3/LEC14		
		Redfish, wooded (5%)	R013XY049ID — RIVERBOTTOM 10-18 POAN3/LEC14		
13430	Alpine-St. Anthony complex, 0 to 2 percent slopes	Alpine (50%)	R013XY004ID — SHALLOW GRAVELLY 12-16 ARTRV/PSSPS	6.1	28.6%
		St. Anthony (35%)	R013XY004ID — SHALLOW GRAVELLY 12-		