Environmental Information Document

Horizon Organic Dairy

2577 East 500 South

Paul, ID 83347

Neibling Environmental Consulting

3265 E 3500 N

Kimberly, ID 83341

February 18, 2013

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Introduction

Executive Summary

This Environmental Information Document (EID) is being prepared as part of the National Pollutant Discharge Elimination System (NPDES) Confined Animal Feeding Operation (CAFO) permit (number IDG010000) application for Horizon Organic Dairy, which consists of more than 8,000 acres of land in eastern Jerome County. In order to comply with the NPDES requirements, additional berming is proposed around compost and feed storage areas and an overflow channel is proposed to carry stormwater around the West Dairy. No negative environmental impacts are expected from these proposed actions. Positive impacts on downstream species and habitats are possible with improved surface water management.

History/Background

Horizon Organic Dairy is located as follows:

- 2577 East 500 South, Paul, Idaho 83347
- 42 38' 55" N 114 00' 44" W
- Township 9 South, Range 21 East, Sections 16, 17, 18, 20, 21, 22, 27, 28, 29, 32, 33, 34, and Township 9 South, Range 20 East, Sections 1, 7, 12, 13, and 14.

The Horizon Organic Dairy operation near Paul, Idaho encompasses the West Dairy facility, the East Dairy facility (new freestall/pasture dairy), and heifer, dry cow, and calf facilities, along with 8,266 acres of land in eastern Jerome County, Idaho (see maps, Appendix A). The West Dairy facility houses 1500 heifers and 200 dry cows; no cows are currently being milked at the West Dairy facility. The East Dairy facility houses 2,400 milking cows. The Dry Cow facility houses 100 maternity cows, 100 maternity heifers, and 400 calves. The two north heifer facilities are not currently used but may be used for housing heifers periodically. The farmland included in this plan is either owned or leased and operated by Horizon Organic Dairy.

Horizon has owned and operated a grass-based dairy at the site since 1993; the dairy was certified organic in 1994. In 2008 the East Dairy facility was constructed to increase milking capacity; operations at the new facility began on December 9, 2008. The old milking facility (West Dairy) was phased out of milking operations in April 2009 and is now used to house heifers and dry cows.

Horizon Organic Dairies is a division of Whitewave Foods, which is owned by Dean Foods. The corporate headquarters of Whitewave Foods are located at 12002 Airport Way, Broomfield, CO 80021.

Purpose and Need of Project

The purpose of this project is to obtain coverage for the Horizon Organic Dairy under the NPDES General Permit for CAFO operations in Idaho. The only operational alterations

proposed at this time are those necessary to bring the existing dairy within compliance with NPDES requirements.

This is a voluntary application for an NPDES permit for Horizon Organic Dairy's CAFO operation in Paul, Idaho. The dairy is not required to obtain this permit to allow continued operations because they have not discharged into waters of the US.

Alternatives

No Action Alternative
If no action is taken, storm runoff and run-on may be inadequately controlled at compost areas and feed storage areas. This could result in runoff from these areas mixing with clean water.

In the past, watershed runoff from large winter storm events flowed down the A and B main drain and crossed the E 500 S road between feed storage area 3 (FS3) on the dairy and the residence to the east (Fig B1 & B2). The nearly flat portion of Field 140 just east of the dairy was covered with water. The existing A and B wastewater ditch flowing through the dairy was unable to handle the large volume of runoff water since it was designed to carry only expected drain water. If no action is taken, it can be expected that this pattern will continue.

Proposed Action
Horizon Organic Dairy will continue their current operations. The proposed action consists of additional berming to better control runoff and run-on around compost and feed storage areas. Additional information regarding the proposed berming is provided in the Hydrologic Analysis (Appendix B). Additionally, a flood spillway is proposed to carry stormwater from upstream of the West Dairy to join with the A and B open channel southwest of the West Dairy.

Other Alternatives Considered
Expanding the open channel and culverts which pass through the West Dairy in order to permit that channel to convey runoff for the 25-year, 24-hour storm would require the redesign and potentially the replacement of eight culverts located between the road north of the West Dairy and the southwest edge of the West Dairy production areas. Current culvert capacity is approximately 50 cfs. The capacity required to carry the 25-year, 24-hour storm runoff from the upstream watershed would be in excess of 4000-6000 cfs (see Hydrologic Analysis).

Existing Environment

Soils and Geology

According to Hackett, Pelton, and Brockway's "Geohydrologic Story of the Eastern Snake River Plain and the Idaho National Engineering Laboratory," the Snake River Plain Aquifer lies under about 10,000 square miles in the eastern Snake River Plain (1). It is estimated to have about a 200 million acre-feet potential storage capacity. Yearly recharge and discharge is about 8 million acre-feet. The aquifer consists of a series of basalt lava flows, with volcanic ash and highly fractured rock zones along the flow contacts, and sedimentary deposits of sand, gravels, and clays between the lava flows. These layers of basalt and sediment are well exposed in the Snake River Canyon, notably in the Twin Falls and Hagerman areas. The total thickness of the lava flows and interbedded sediment, all included in the Snake River Group, ranges from about 2,000 to 10,000 feet. The tops of many basalt lava flows are highly permeable, and water moves primarily along these layers. Occasional lava tubes may fill and convey water rapidly for short distances. Some of the sedimentary deposits are coarse grained and will store and transmit significant quantities of water. In any case, water flows easily through the Snake River Plain Aquifer, one of the most permeable large aquifer systems in the world. The ground water generally flows from northeast to southwest.

The soils beneath the dairy are generally silt loams. Approximately fifty percent of the dairy land is composed of Power Silt Loam, seventeen percent is Sluka Silt Loam, seven percent is Bahem Silt Loam, seven percent is Dolman Silt Loam, and five percent is Banbury Silt Loam. According to the official soil series descriptions, these soils are moderately to very deep and are generally used for rangeland or irrigated cropland (2). Permeability is moderate to moderately slow, the soils are well drained, and runoff is generally slow or moderate, but can be very fast in Bahem soils.

The remaining fourteen percent of the land is composed of a variety of other silt loams, loams, rock outcrops, and water, with each soil comprising no more than three percent of the dairy area. Soils data for each fieldis provided in Tables 1-3 of the Nutrient Management Plan. Copies of these tables have been enclosed in this EID as Appendix C.

Air Quality

According to Idaho Department of Environmental Quality's map of administrative boundaries for areas with sensitive air quality, Horizon Organic Dairy is not located in an area of concern, Class I area, or non-attainment area with respect to air quality (3). The nearest such area is located approximately forty miles to the north at Craters of the Moon National Monument.

Surface Water

The dairy is located near the eastern border of the Upper Snake-Rock watershed, approximately 8.5 miles north of the Milner Dam. A relatively large flow rate would be required to fill the channel (Point A to Point B, Fig B1) and produce flow to Point B. If runoff from the dairy was to

reach a natural waterbody, it would flow into the North Side Canal (Point B, Fig B1). During the irrigation season, it would be diluted into approximately 1200 cfs of irrigation water. During the non-irrigation season, runoff that did enter the North Side Canal at Point B would have to fill a large, wide canal sufficiently to produce flow from Point B to the first possible return flow channel. In either case, runoff could only flow into the Snake River through designated North Side Canal return flow streams. Historically, the North Side Canal Company has been proactive in working with DEQ and EPA to reduce contaminant loading into the Snake River from return flows by significantly reducing the number of return flow laterals and the volume of water returned to the Snake River.

According to the Idaho Department of Environmental Quality:

> Nutrients, sediment and temperature are the major pollutants, which impact beneficial uses of surface waters in this subbasin.The Middle Snake River is a managed water system with altered flow regimes. The Middle Snake River and its tributaries are impacted by runoff from irrigated crop production, rangeland, pastureland, animal holding areas, feedlots, dredging, hydro-modification, and urban runoff. Natural springs have exhibited hydro-modification and stream bank alteration has occurred from activities relating to sedimentation, aquaculture, hydropower, irrigated crop production, and land development. Additionally, the watershed contains three areas where groundwater is impacted by nitrates (designated Nitrate Priority Areas). Conservation practices that can be used to address these water quality issues include erosion control, grazing management, irrigation water management, residue management, nutrient management and riparian buffers (4).

Details regarding site-specific surface water hydrology are provided in the Hydrologic Analysis, enclosed as Appendix B. In general, all but the south-easternmost fields of the dairy are located in the lower portion of a roughly 50-square-mile watershed which flows into the A and B main drain, through a culvert under the E 500 road, and down the east and southeast borders of the West Dairy to a wetland area which crosses under the flume in the Milner-Gooding Canal.

Groundwater

Horizon Organic Dairy is located within the Eastern Snake River Plain sole source aquifer. The EPA Region 10 website notes that “Sole source aquifer designation provides only limited federal protection of ground water resources which serve as drinking water supplies. It is *not* a comprehensive ground water protection program (5).” This protection consists of a Safe Drinking Water Act mandate that projects in sole source aquifers only receive “federal financial assistance (through a grant, contract, loan guarantee, or otherwise)” if they are designed such that they will not “contaminate such aquifer through a recharge zone so as to create a significant hazard to public health (5).” While some states additionally regulate, Idaho’s water rule makes no reference to either sole source aquifers or special treatment for this specific aquifer (IDAPA 58.01.11.300).

Approximately 200 acres of the eastern fields are located in the Minidoka Nitrate Priority area (6). A nitrate management area is designated because at least 50% of the ground water sampling locations within the area exceed 2-milligrams/liter nitrate. This concentration threshold provides an indication of human-caused (anthropogenic) impacts since the upper limit for naturally occurring (background) concentrations of nitrate is considered to be about 2 mg/l. The specific isotopes of nitrogen found in this area's groundwater were reportedly consistent with contamination due to commercial fertilizer (6). The 2008 ground water quality management plan, which was the most recent available on the DEQ website, states that there are currently no regulatory requirements related to this nitrate priority area; the intention is to promote use of best management practices (BMPs) and nutrient management by nonpoint sources such as irrigated agriculture, residential land use, animal feeding operations and dairies, and industrial and municipal wastewater land application (6).

Horizon Organic Dairy has had a nutrient management plan since 2000. The nutrient management plan establishes nutrient loading to minimize potential for groundwater contamination. The most important BMP has been converting all irrigation to sprinkler, with the majority being center pivot. In contrast to other BMPs which require significant management actions on a yearly basis, sprinklers protect groundwater by their design rather than grower action. Center pivots are designed such that deep leaching from water application could only occur during the spring or fall, since pivots run at a slight water deficit during the major portion of the growing season.

Floodplains

The dairy is located in FEMA map service center panel 1602280150B; this panel is unavailable for viewing (7). An index map for Jerome County with a footnote showing that this panel and others marked with an asterisk are in Zone D is included in Appendix D. Zone D is defined as areas with possible but undetermined flood hazards where no flood hazard analysis has been conducted (8).

Vegetation

The area surrounding the dairy is largely disturbed from its natural state and is actively used as farmland. Vegetated portions of the dairy include cropland, irrigated pasture, and dry pasture. Cropland is rotated between alfalfa, barley, and corn. Irrigated pasture is planted with a grass-alfalfa mixture. Dry pasture and portions of the property which have not been developed are vegetated with sagebrush and other high desert plants.

Wetlands

Wetland maps obtained from the U.S. Fish and Wildlife Service online wetlands mapper are included as Appendix E (9). Multiple small wetlands are shown on the property; the majority of these are related to irrigation channels and are therefore non-jurisdictional.

Fish and Wildlife

The dairy is located near the edge of the large belt of active farmland along the Snake River. Land in this area has been disturbed from its natural state and is therefore unlikely to support the typical types and variety of species found in the native high desert. Neibling Environmental personnel have observed a variety of raptors (including eagles, hawks, and ospreys) and rodents on and surrounding the dairy during annual soil sampling and other site visits. According to data obtained from the U.S. Fish and Wildlife Service geospatial fisheries information network (GEO-FIN), the closest fish and wildlife refuge to the site is the Minidoka National Wildlife Refuge which surrounds Lake Walcott approximately 22 miles to the east (10).

Threatened and Endangered Species

According to the U.S. Fish and Wildlife Service, three candidate, threatened, or endangered species are located in Jerome County, Idaho: the greater sage-grouse (candidate), the Bliss Rapids snail (threatened), and the Snake River Physa snail (endangered) (11). According to the Bureau of Land Management, the greater sage-grouse is found in sagebrush ecosystems (12). The Bliss Rapids snail is found on “cobble-boulder substrate” in “cold-water springs and spring-fed tributaries to the Snake River, and in some reaches of the Snake River” (13). The Snake River Phyta snail is found in the Snake River in “areas with swift current over sand to boulder-sized substrate” (14). While the dairy does not contain habitat suitable for the Bliss Rapids snail or Snake River Phyta snail, the dry pastures could be suitable habitat for the greater sage-grouse. However, we are not aware of any anecdotal sightings or documentation of the presence or absence of this species in the area. Additionally, according to the Critical Habitat mapper, no critical habitat is present within one hundred miles of Horizon Organic Dairy (15).

Recreation

The dairy is located in an active agricultural area; there are therefore not many recreation opportunities in the near vicinity. According to recreation.gov, the nearest recreation area to the dairy is Caldron Linn, located approximately twelve miles to the southwest along the Snake River. Caldron Linn is a cultural/historic site maintained by the Bureau of Land Management and offers biking, hiking, and horseback riding (16). The next nearest recreation area is the Minidoka National Wildlife Refuge approximately 22 miles to the east.

Noise

The dairy is located in a rural, agricultural area. Noise levels have historically been observed to be relatively low compared to more urban areas and are consistent with agricultural operations.

Unique Areas

According to the Bureau of Land Management, no wild, scenic, or recreational rivers are located within Jerome County (17).

Cultural Resources
According to the National Park Service National Historical Register Map, accessed within Google Earth, no areas of recognized scenic, recreational, archeological, or historic value are located within five miles of Horizon Organic Dairy (18). The nearest historical site is the Bert and Fay Havens House located approximately six miles to the southwest, north of Hazelton.

Land Use/Population/Socio-economic/Environmental Justice Communities
Most of the surrounding area was homesteaded in the 1950s and now is irrigated cropland. BLM land is widely interspersed, sharing significant property boundaries. Land use of the BLM land in that area is primarily grazing and hunting, as well as providing wildlife habitat. Horizon owns 1500 acres which are still in sagebrush and currently used for grazing. The majority of the suitable farmland in this area has been developed. Water availability for irrigation is the limiting factor for additional development.

According to the EPA EJVIEW mapper the dairy is located in a tract where 23.1% of the population consists of minority groups and 21.9% of the population has not completed a high school education (19). The area is rural (6.9 people per square mile) with a 6.12% infant mortality rate.

Environmental Impacts

Soils and Geology
No detrimental impact on soils or geology is anticipated. Continued impacts to soil from agriculture are expected to be both positive and relatively minor. The organic farming practices selected by Horizon Organic Dairy are expected to benefit soil health compared to contemporary non-organic alternatives. The choice not to use commercial pesticides is a direct benefit to soil health. Use of compost as a fertilizer is likely to increase the soil organic matter in nutrient-poor soils. Increased soil organic matter reduces nutrient leaching potential and potential for surface runoff. Horizon Organic Dairy has participated in nutrient management planning since 2000, and the BMPs found in the most current nutrient management plan are intended to prevent excessive deposition of nutrients in the soil.

Air Quality

The dairy is located in a sparsely populated agricultural area and the majority of the residences in the area are owned by Horizon. The short term impacts of dust from earth moving would be comparable to that from routine agricultural operations in the area. Since cows spend the majority of their day on pasture during the growing season, methane emissions are nonpoint in nature. Some methane discharge does occur from the dairy footprint, barns, and lagoons, particularly during the non-growing season. Horizon Organic Dairy is certainly aware of methane emissions and is addressing the issue by participating in DEQ's permit by rule for dairies in lieu of obtaining a site-specific air quality operating permit. Horizon's permit number is PR-060422 and the permit was issued July 12, 2006.

Surface Water

Improvements in flood routing of upstream surface water runoff through the dairy site are expected to protect surface water downstream of the site from contact with water impacted by dairy operations for storms up to the 25-year 24-hour design storm. While surface water from the dairy does not typically reach a natural surface water body, a sufficiently large rain on snow event could conceivably wash surface water from the dairy (and any accumulated nutrients from prior years) to the Snake River.

Groundwater

Horizon's nutrient management plan establishes nutrient loading limits to minimize potential for groundwater contamination. Maximum nutrient application rates are designed to match nutrient application to nutrient uptake by the designated crop, thus minimizing residual soil nitrogen in the fall that could be leached. The most important irrigation-related water quality BMP has been the conversion of all irrigation to sprinkler, with the majority being center pivot. In contrast to other BMPs which require significant management actions on a yearly basis, groundwater protection by sprinklers is primarily by design rather than grower management choices. Center pivots are designed such that deep leaching from water application could only occur during the spring or fall, since pivots run at a slight water deficit during the major portion of the growing season.

Floodplains

Flood routing will be improved (see Appendix A).

Vegetation

No impact on vegetation is anticipated.

Wetlands
Improvements in flood routing of surface water are expected to protect any wetlands present downstream of the site from contact with water impacted by dairy operations for storms up to the 25-year 24-hour storm. Because the only change is in runoff bypass around the dairy, the volume of water available for wetland maintenance will be unchanged below the downstream end of the bypass channel (just upstream of Point A, Fig B1).

Fish and Wildlife
The nearest fish and wildlife refuge is 22 miles downstream. However, there is some wildlife habitat along this ephemeral stream as it flows from Point A to Point B. Therefore, improvements in surface water flood routing are expected to protect downstream wildlife associated with the ephemeral stream from contact with water impacted by dairy operations for storms up to the 25-year 24-hour storm.

Threatened and Endangered Species
No action is proposed in the dry pastures (used as organic dry pasture for dairy cattle) which may be suitable habitat for the greater sage grouse, a candidate species. The closest suitable habitat for the two threatened and endangered mollusks found in Jerome County is the Snake River. Improvements in surface water flood routing are expected to protect downstream species from contact with water impacted by dairy operations for storms up to the 25-year 24-hour storm.

Recreation
No impact on recreation is anticipated.

Noise
No impact on noise is anticipated.

Unique Areas
No impact on unique areas is anticipated.

Cultural Resources
No impact on cultural resources is anticipated.

Land Use/Population/Socio-economic/Environmental Justice Communities
Land use of the portion of Field 140 which will be converted into a bermed floodway will be altered from its current use as irrigated pasture. The area dedicated to berms and floodway will be less than five acres (Fig B2). However, a significant portion of this field has historically flooded after large precipitation events; the construction of this spillway will reduce the area impacted.

No impact on population, socio-economic, or environmental justice communities is anticipated.

Indirect and Cumulative Environmental Impacts
Some improvement in the health of wetlands and animal populations located downstream of the dairy is possible due to improved surface water management with the proposed changes. A corresponding improvement in the health of species consuming these plants and animals is possible.

Short-Term Use vs Long-Term Productivity
The proposed berms are intended to improve the sustainability of long-term productivity for the dairy.

Irreversible and Irretrievable Commitment of Resources
No irreversible or irretrievable commitment of natural resources is proposed.

Interagency Coordination and Consultation

Clean Water Act
Horizon Organic Dairy is located in a watershed containing water quality limited stream segments listed according to the Clean Water Act. Stream segments are listed because a water quality parameter prevents the attainment of the "Fishable/Swimmable" goal of the Clean Water Act. The section of the Snake River between Milner Dam and Murtaugh has been impacted by bacteria, decreased dissolved oxygen, flow alteration (for irrigation purposes), increased sediment, and increased water temperature (20).

Clean Air Act
According to Idaho Department of Environmental Quality's map of administrative boundaries for areas with sensitive air quality, Horizon Organic Dairy is not located in an area of concern, Class I area, or non-attainment area with respect to air quality. The nearest such area is located approximately forty miles to the north at Craters of the Moon National Monument.

Endangered Species Act
One candidate species (greater sage-grouse), one threatened species (Bliss Rapids snail), and one endangered species (Snake River Phyta snail) are found within Jerome County. No action is proposed in the dry pastures (used as organic pasture for dairy cattle) which may be suitable habitat for the greater sage grouse. The closest suitable habitat for the two snails is the Snake River. Improvements in surface water flood routing are expected to protect cropland, dry pastures, and downstream species from contact with water impacted by dairy operations for storms up to the 25-year 24-hour storm.

National Historic Preservation Act
According to the National Park Service National Historical Register Map, accessed within Google Earth, no areas of recognized scenic, recreational, archeological, or historic value are

located within five miles of Horizon Organic Dairy. The nearest historical site is the Bert and Fay Havens House located approximately six miles to the southwest, north of Hazelton.

Executive Order on Wetlands
Wetland maps obtained from the U.S. Fish and Wildlife Service online wetlands mapper are included as Appendix E. Multiple small wetlands are shown on the property; the majority of these are related to irrigation channels. No wetlands are proposed to be excavated, filled, or otherwise directly altered. Improvements in flood routing of surface water are expected to protect wetlands downstream of the site from contact with water impacted by dairy operations for storms up to the 25-year 24-hour storm.

Executive Order on Floodplains
No current flood map was available for the site area from the FEMA map service center because the entire area is classified as Zone D. The proposed actions are intended to improve flood routing.

Farmland Protection Policy Act
No fields are proposed to be removed from agricultural use. Less than five acres of Field 140, currently irrigated pasture, is proposed to be reshaped to provide a floodway. This field currently floods during large rainfall events.

Executive Order on Environmental Justice
The proposed berming and continued operations are not expected to affect environmental justice communities.

Farmland Protection Act
No fields are proposed to be removed from agricultural use. Less than five acres of Field 140, currently irrigated pasture, is proposed to be reshaped to provide a floodway. This field currently floods during large rainfall events.

Mitigation

All crop fields have been categorized according to potential for contamination of adjacent drainways by surface runoff. BMP's have been selected according to potential risk. Highest risk fields require vegetated buffer and/or berming to prevent flow to adjacent drainways while compost incorporation within 72 hours of application is sufficient for fields located farther from drainways. Nutrient application limits are based on phosphorus levels found in soil samples. Compost land application will be 75% of the crop uptake rate on fields with a soil test phosphorus level greater than 40 and less than 80 ppm. On fields with a soil test phosphorus level of 80 ppm or greater, application will be 50% of the crop uptake rate in order to reduce higher levels.

A variety of additional BMPs are used on permanent pasture, cropland, and the dairy itself:

1) Permanent Pasture
    a) conservation cover
    b) irrigation management
    c) sprinkler system
    d) watering facility
    e) grazing land mechanical treatment (Aerway Pasture Aerator)
    f) prescribed grazing
    g) vegetatiove buffer or filter strip
    h) berming
2) Cropland
    a) chiseling and subsoiling (after corn)
    b) conservation cover (after barley)
    c) conservation tillage
    d) cover/green manure crop (after barley)
    e) crop rotation
    f) irrigation management
    g) sprinkler system
    h) vegetative buffer or filter strip
    i) berm
3) Dairy
    a) sediment basin\
b) composting facility

Details are provided in Appendix F.

Public Participation

As this facility has been operational for several years, there is not currently a public consultation process beyond the typical 30-day comment period associated with NPDES permits.

List of Preparers

Marsha Neibling

- M.S. Physiological Plant Ecology, Purdue University, 1977
- Prepared: History/Background, Soils and Geology, Groundwater, Clean Water Act

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- Ph.D. Surface Water Hydrology, Purdue University, 1984
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- Prepared: Hydrologic Assessment (referenced in Purpose and Need of Project, Proposed Action, and Surface Water)

Kristin Neibling

- B.S. Biological Science, Ecology, Montana State University, 2005
- Prepared: Existing Environment, Predicted Environmental Impacts, Interagency Coordination and Consultation, Public Participation, and Mitigation

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- B.S. Biological Systems Engineering, University of Idaho, 2005
- Prepared: Environmental Information Document, Hydrologic Assessment

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10. Geospatial Fisheries Information Network (GEO-FIN). *U.S. Fish and Wildlife Service.* [Online] [Cited: October 12, 2012.] http://ecos.fws.gov/geofin.

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12. Sage-Grouse and Sagebrush Conservation. *Bureau of Land Management.* [Online] [Cited: October 25, 2012.] http://www.blm.gov/wo/st/en/prog/more/sage_grouse_home2.html.

13. http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=G01K. *U.S. Fish and Wildlife Service.* [Online] [Cited: October 25, 2012.] http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=G01K.

14. Snake River Physa snail (Physa natricina). *U.S. Fish and Wildlife Service.* [Online] [Cited: October 25, 2012.] http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=G01L.

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20. **NRCS.** *Idaho OnePlan Conservation Planner.*

21. **U.S. Environmental Protection Agency.** Water Quality Assessment and Total Maximum Daily Loads Information. [Online] [Cited: January 27, 2013.] http://www.epa.gov/waters/ir/index.html.

22.

Appendix A: Maps

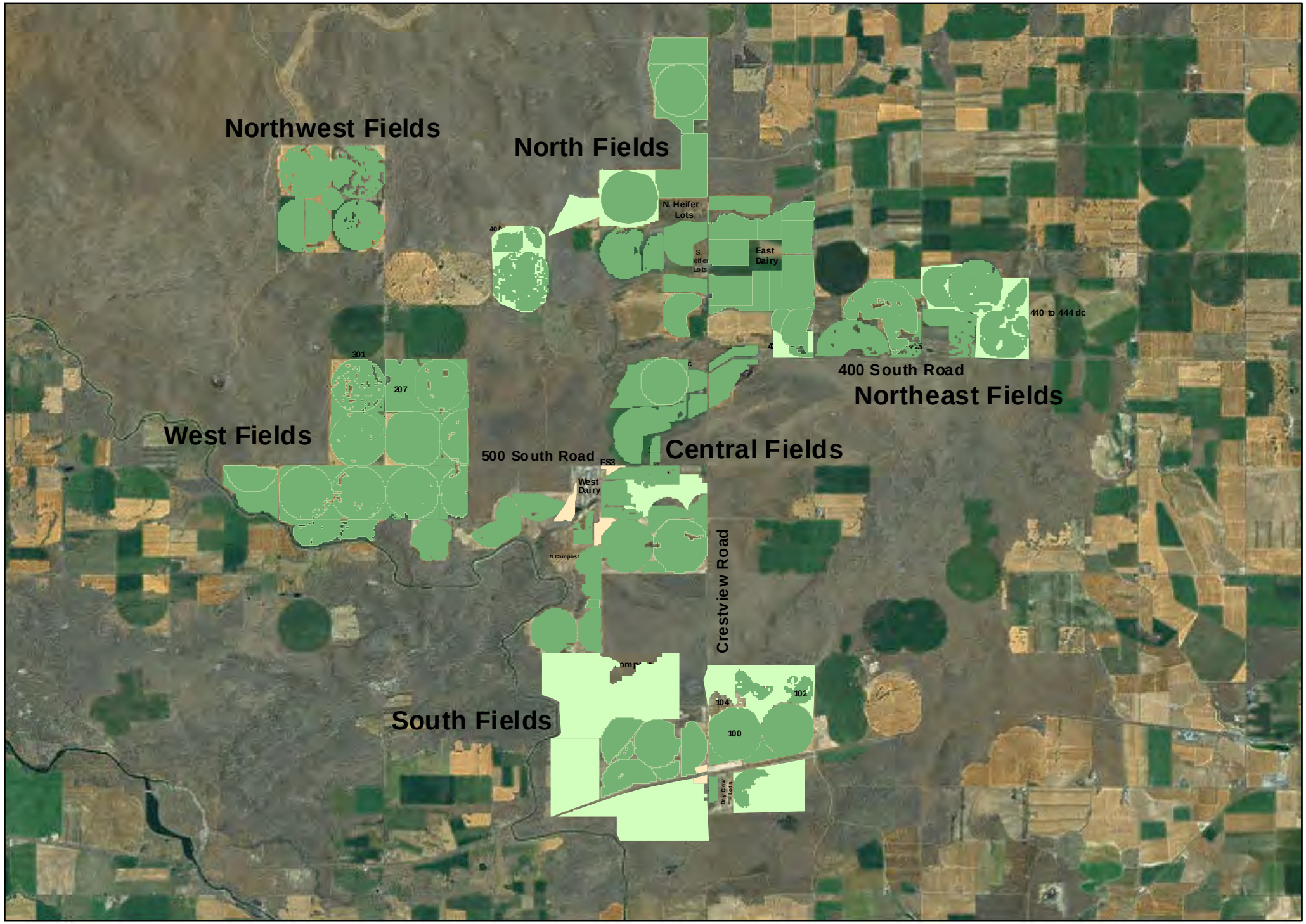
Appendix B: Hydrologic Analysis

Appendix C: Soils Data

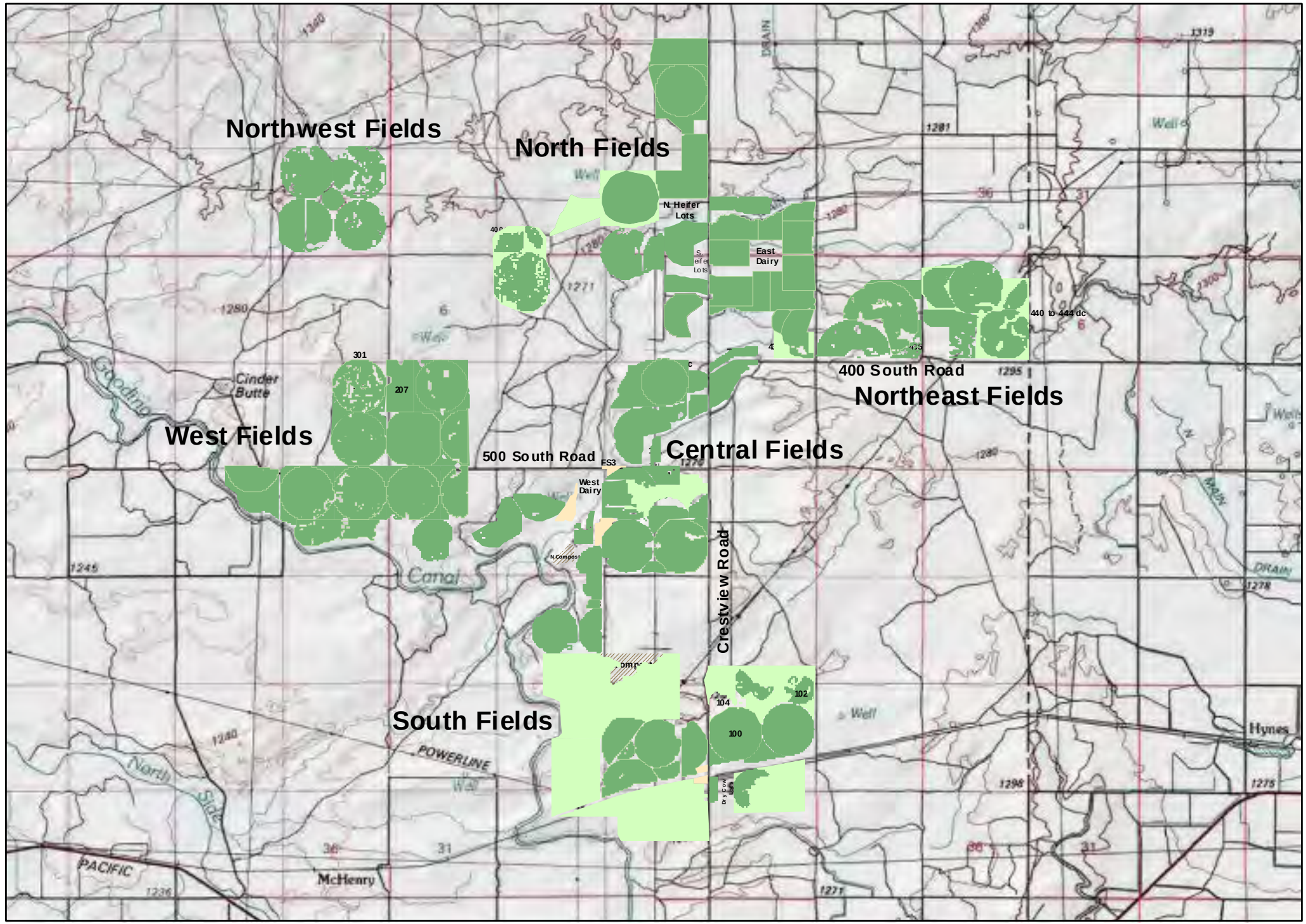
Appendix D: Flood Zone Data

Appendix E: Wetland Maps

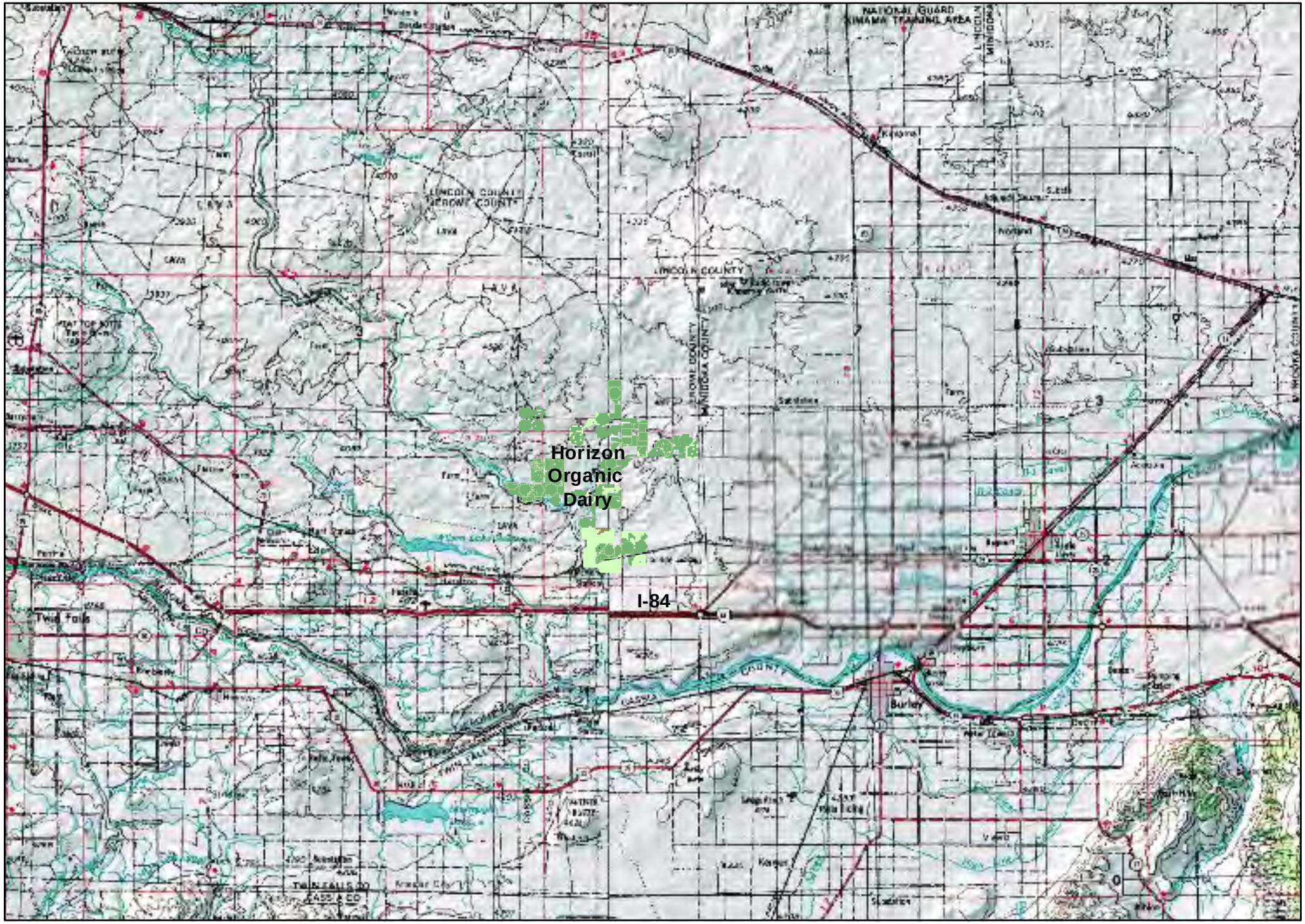
Appendix F: Mitigation



Horizon Organic Dairy Aerial Map: All Fields



Horizon Organic Dairy Topographic Map: All Fields



Horizon Organic Dairy Location Map

Appendix B: Hydrologic Analysis

Run-on entering north side of West Dairy from upstream watershed: The watershed area above the West Dairy is shown in **Figure B1**. This topographic map was created to define the watershed boundary upstream of the entrance of the A and B Irrigation District Main Drain as it entered the north side of the dairy. The boundary was checked with field investigation along most of the watershed boundary. Watershed area was determined to be approximately 50 square miles.

The majority of the watershed area is composed of sagebrush/forb/grass rangeland. Topography is highly variable and contributes to many areas of small-scale runoff storage. The soils vary from significant rock at or near the surface to productive irrigated fields. Watershed slope is greatest on the north end downslope of several buttes and flattens toward the outlet.

In the past, watershed runoff from large winter storm events flowed down the A and B Irrigation District main drain and crossed the E 500 S road between feed storage area 3(FS3) on the dairy and the residence to the east (**Figure B2**). The nearly flat portion of field 140 just east of the dairy was covered with water. The existing A and B wastewater ditch flowing through the dairy was unable to handle the large volume of runoff water since it was designed to carry only expected drain water. Culvert capacity entering the dairy is about 46 cfs. Downslope culverts vary in capacity but the maximum flow that can pass through the drain is about 50 cfs.

For the purpose of this analysis, the most severe condition for runoff would be in the winter with rain falling on frozen ground. Under this condition, which has occurred in several recent years, almost no water can infiltrate, producing a high ratio of runoff to precipitation. Factors that would tend to reduce runoff volume and peak rate under these conditions are presence of local areas of depression storage due to variable topography and elevated roadbeds with no culverts.

Peak runoff rate was determined using the USDA-NRCS TR55 computer-based hydrologic model. Relevant inputs are watershed area, slopes and roughness of the overland flow, shallow channel and channel flow regions, antecedent soil moisture condition(I, II or III), soil intake index(A, B, C, D) and runoff curve number, based on cover, soil and antecedent moisture. The soils in this area are primarily class C (moderately high runoff potential). For rain on snow or frozen soil conditions, class D (high runoff potential) and antecedent moisture condition III (very wet soil before the event) was used. The 25-year 24-hour storm for this area was 2.0 inches, based on USGS maps. For these conditions, a peak runoff rate of 6100 cfs was calculated. This far exceeds the capacity of the A and B ditch and generally supports the observed flooding events. Therefore, a run-on control structure is proposed to route water above the ditch capacity across E 500 S road. Two berms, shown in **Figure B2**, will be constructed to guide this water through field 140 to a new channel with the entrance south of the current drain ditch. This new channel will allow all run-on water to bypass the dairy lots and lagoons.

Feed Storage 1 (FS1): This site shown in **Figures B2 and B3** is composed of a number of bunker silo trenches excavated into the hillside on the east side of the farm road and several above-ground silage piles on the west side of the road. Amount of run-on water is minimal in both areas since the upslope end is very close to the top of the ridge. Drainage area is 16.1 acres. Runoff from the east portion of the site is collected by an existing berm across the bottom end, as shown in **Figure B3**. This berm should be enlarged and additional berming installed to direct runoff into an existing lagoon at the base of the slope. Runoff water will be temporarily stored until evaporation in an area upslope of the south berm of the new bypass channel.

Feed Storage area 2 (FS2): This site, also shown in **Figures B2and B4**, is located along the western border of the west dairy footprint. Large bales of hay and straw are stored in this area. Drainage area is 18.8 acres. Slope is to the south, and any runoff flows into Lagoon #1. Lagoon storage is adequate. Existing berming should be upgraded to more reliably carry runoff from field 145 to Lagoon #1.

Feed Storage 3 (FS3): This site, located at the north end of the West Dairy, is shown in **Figures B2 and B5**. Drainage area is 6 acres. It slopes to the east and has a blacktop surface covering. Runoff is directed by berms along the north and south sides toward the east end, just beyond the hard surface area. Runoff flows into this low area and into a vertical standpipe from which it is pumped into a liquid transport and emptied into Lagoon 4. For larger storm events, runoff temporarily backs up onto the blacktop apron until it is removed by pumping.

Feed Storage 4 (FS4): is shown in **Figure B6**. It contains metal grain storage bins, a feed mill and liquid feed supplement tanks. It is located adjacent to, and on the south side of the railroad tracks. Because the grain and liquid supplements are in sealed storage, potential for any contamination of surface water on the site is low. Run-on is minimal and runoff will flow from the site to the southwest and into a closed basin area of the adjacent desert.

Feed Storage 5 (FS5): This area, shown in **Figure B6**, is where the baby calf rations are mixed. The milk replacer powder is stored in sealed containers in the building on site. Water and detergent from mix container and feed bottle cleanup goes into an underground storage tank and is then pumped out into the dry corner through one hand line. The daily hydraulic loading due to this small amount of water is applied over a sufficiently large area that no runoff occurs. Should runoff from precipitation ever occur, it will be contained in a natural basin about ¼ mile down-gradient.

North Compost Area

- Site area, square feet (acres): 752,970 (17.3)
- 100- year, 24 hour precipitation, inches: 2.4 inches
- Runoff volume, cubic feet: 150,594

This area, shown in **Figure B7**, slopes to the northwest with an average slope of about 3-4%. It is located so that the top of the site is at the peak of the ridge, nearly eliminating run-on. A small berm (ridge height of 1 ft) will eliminate all possible run-on. The slope flattens at the base, giving a nearly-level area at least 100 feet wide on the west half and at least 50 feet wide on the east half. Site area is 752,970 square feet. Using 100-year, 24 hour precipitation of 2.4 inches and a runoff coefficient of one (all precipitation runs off the compost area), the required storage is 150,594 cubic feet. Runoff from the east portion is contained by a natural ridge over 3 feet high. The west portion will require a berm with a design height of at least 2.5 feet.

South Compost Area

- Site area, square feet (acres): 2,118,148 (48.6)
- 100- year, 24 hour precipitation, inches: 2.4
- Runoff volume, cubic feet: 423,630

This area, shown in **Figure B8**, slopes to the south, with an average slope of about 2-3%. An upslope band of desert land varying in width from about 200-400 feet contributes run-on to the site. A berm (design height of 1.5 ft in diversion areas with ridge height such that maximum ridge elevation slopes toward the diversion outlet in a nearly uniform slope across one local impoundment area) will eliminate all possible run-on. The slope flattens at the base, giving a nearly-level area at least 100 feet wide. Land area beyond the base to the south is very low slope. Site area is 2,118,148 square feet. Using 100-year, 24 hour precipitation of 2.4 inches and a runoff coefficient of one (all precipitation runs off the compost area), the required storage is 423,630 cubic feet. A berm with a design height ranging from 3.0' (west portion) to 2.5' (middle portion) to 2.0' (east portion) across the base of the slope will be required to contain the runoff.

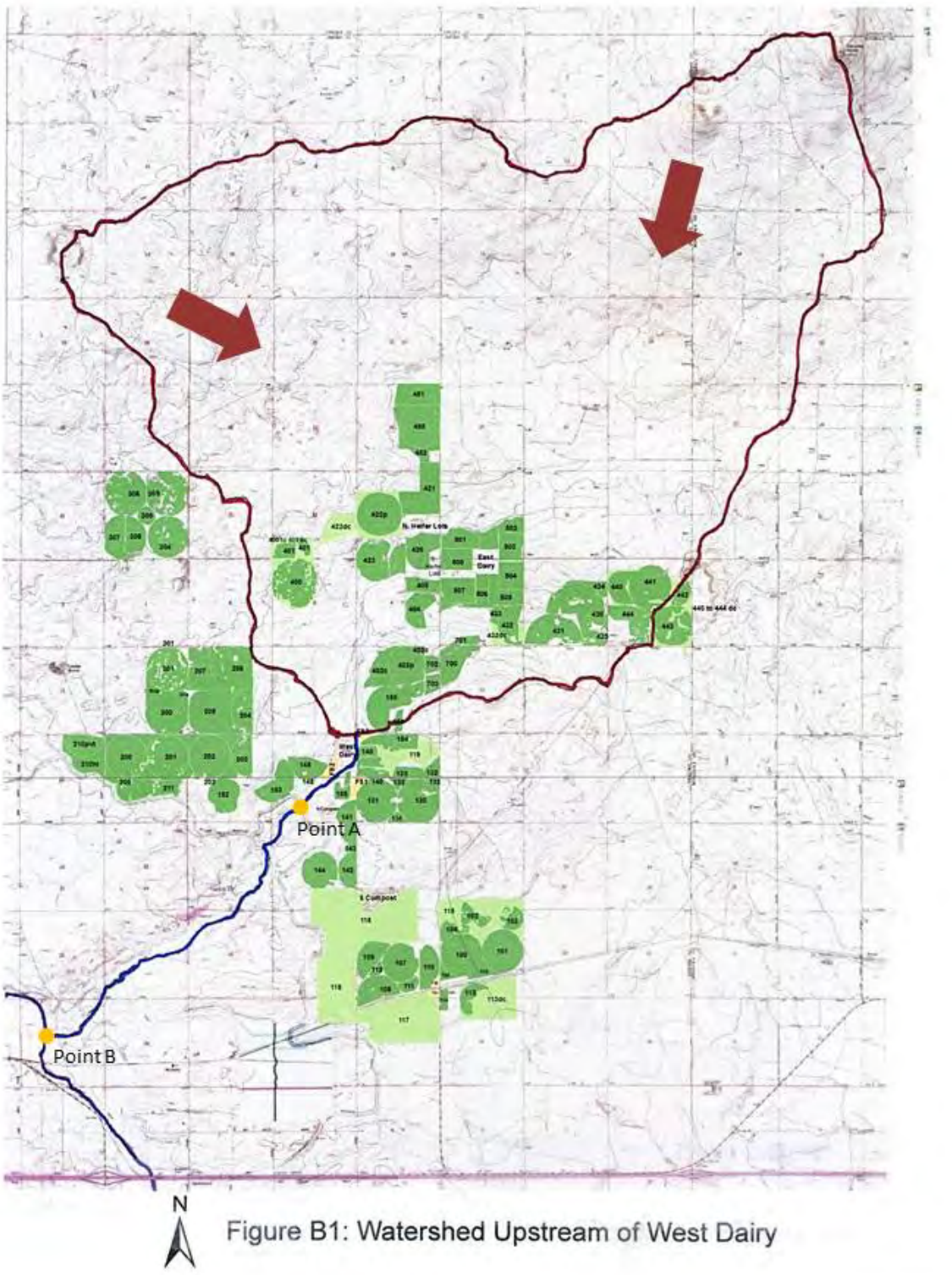


Figure B1. Watershed upstream of the West Dairy. Boundary is shown in red. The A&B Main Drain passing through the West Dairy is shown in blue. The North Side Canal is shown in the lower left in purple.

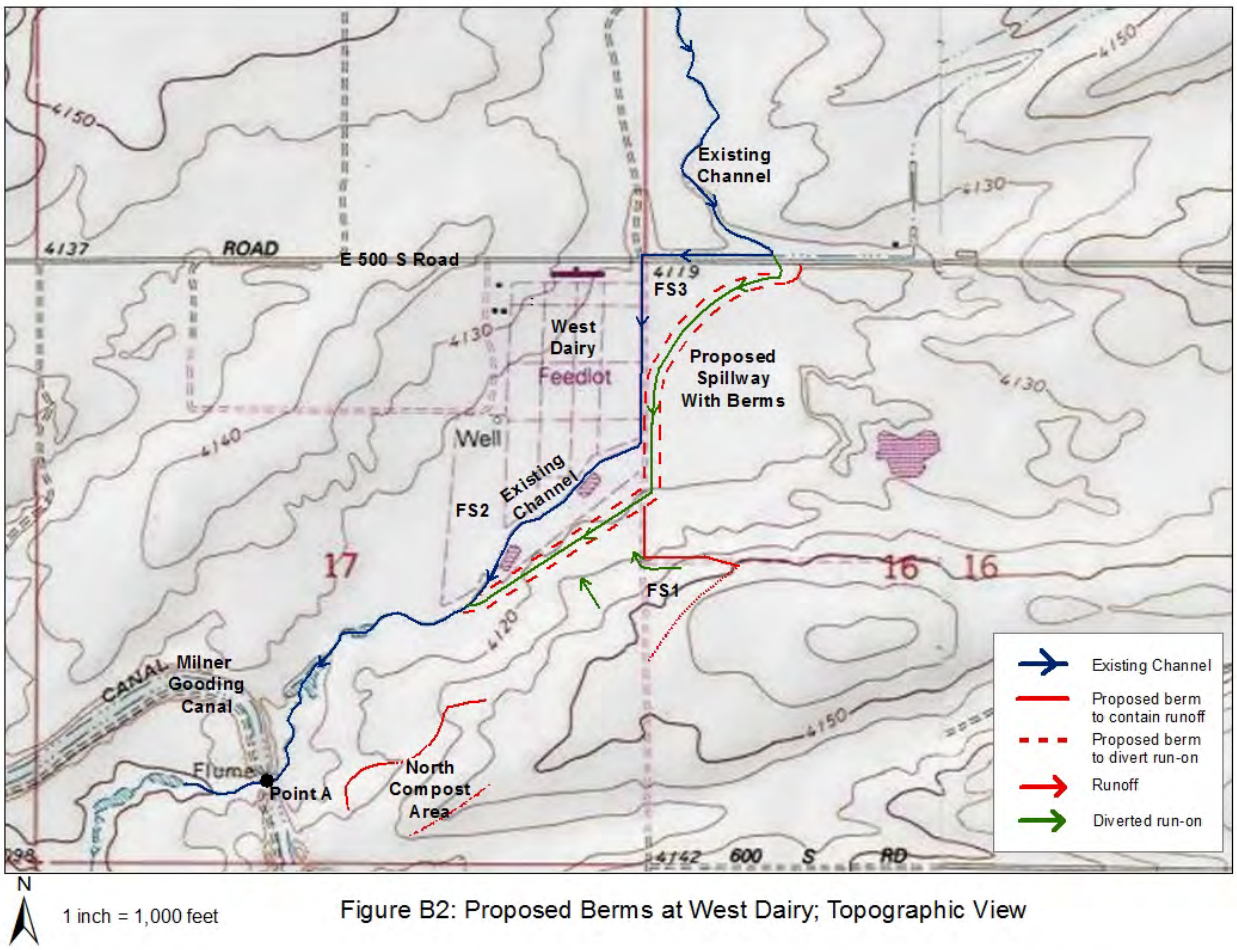


Figure B2: Proposed Berms at West Dairy; Topographic View

Figure B2 Overview of Feed Storage Areas 1-3 and proposed berms at West Dairy; topographic view.

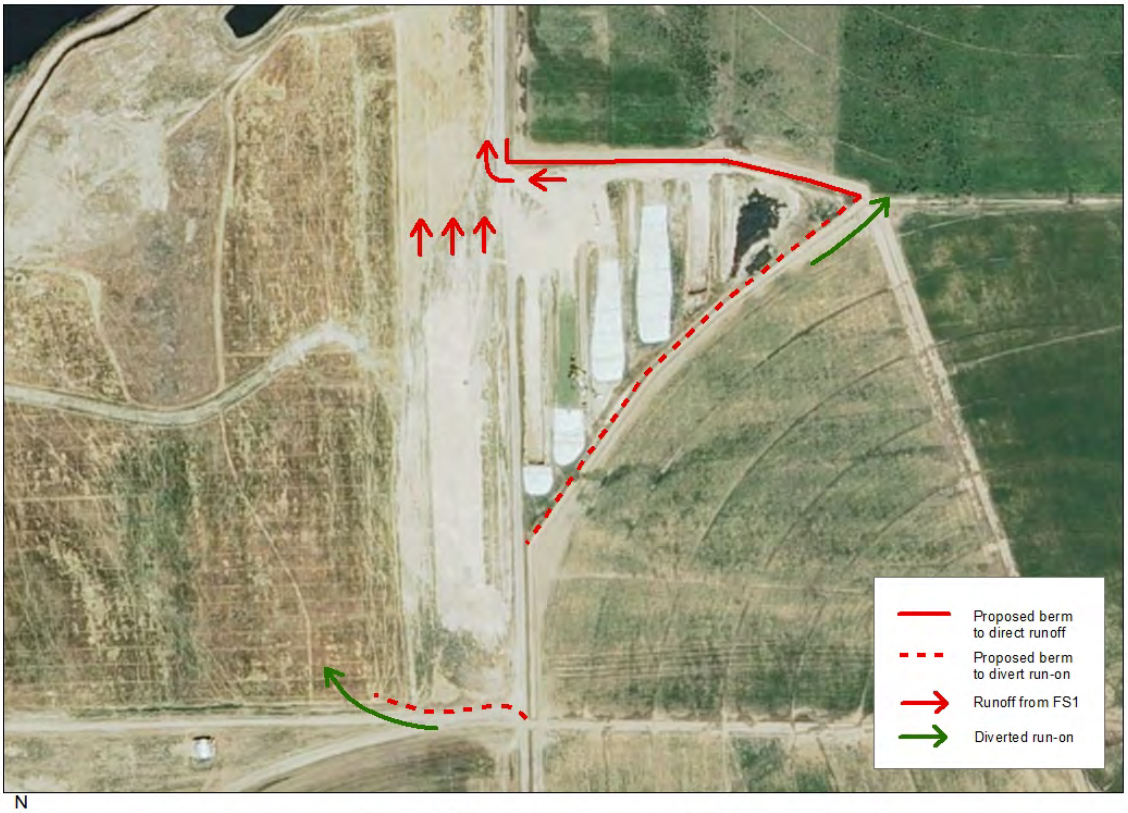


Figure B3: Proposed Berms at Feed Storage Area 1

Figure B3. Proposed berms at Feed Storage Area 1.

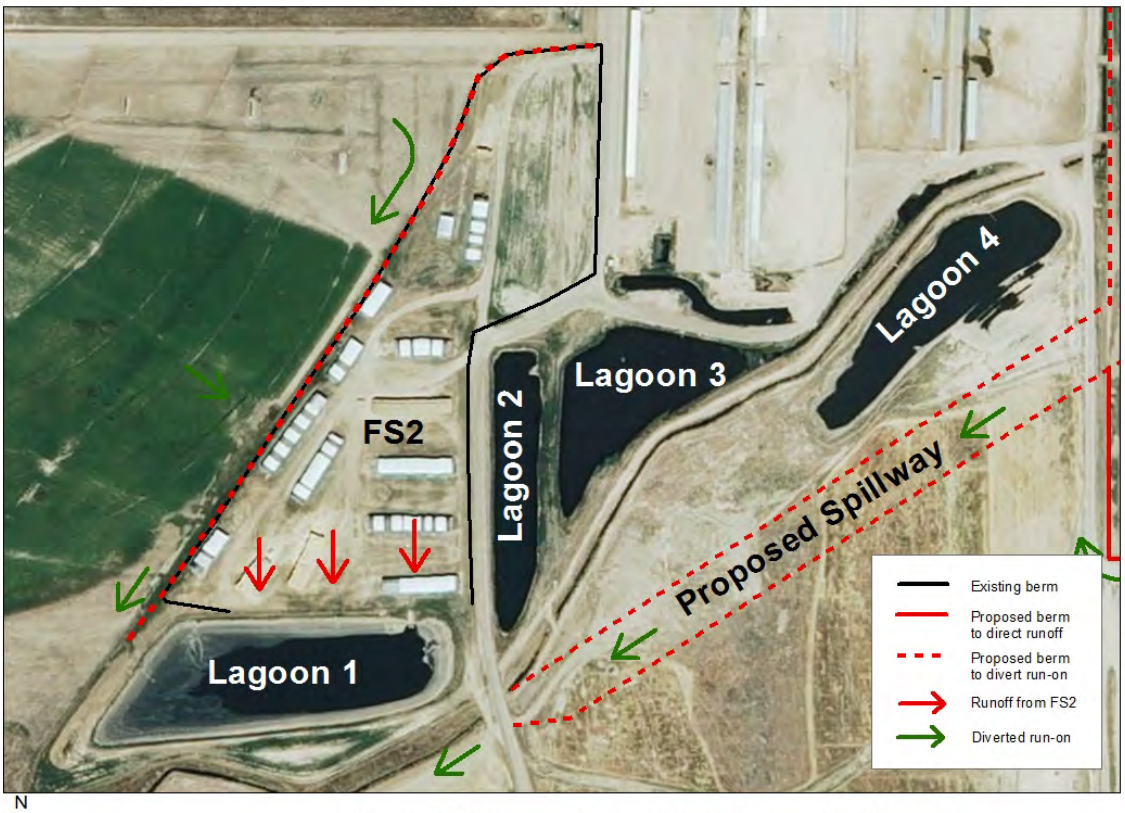


Figure B4: Proposed Berms at Feed Storage Area 2

Figure B4. Current berms requiring enlargement at Feed Storage Area 2.

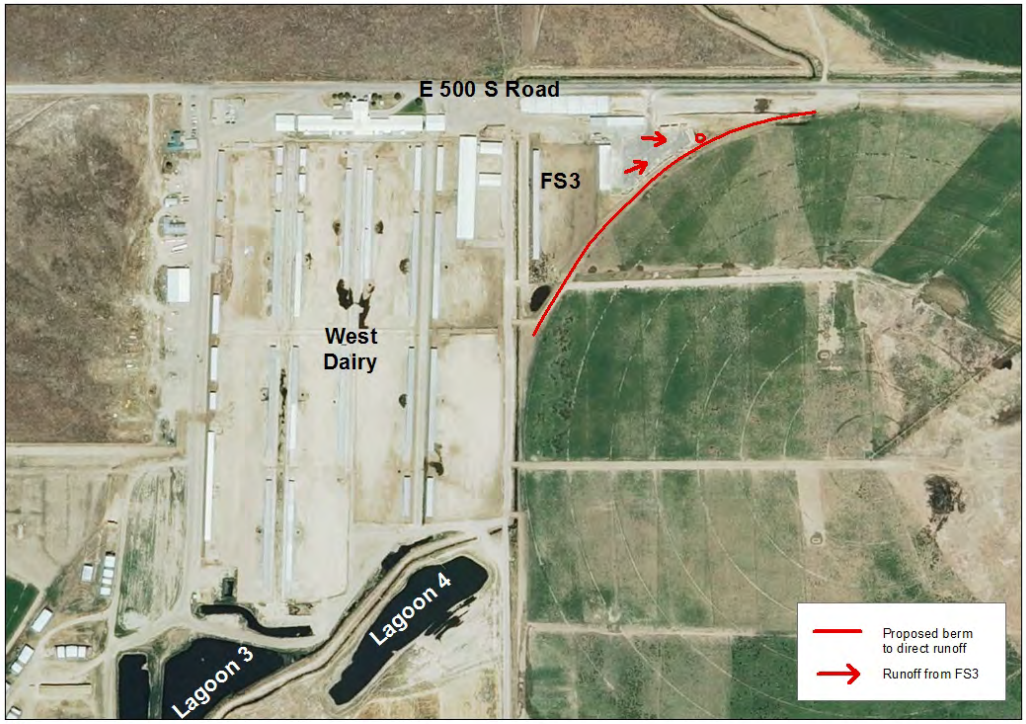


Figure B5: Proposed Berms at Feed Storage Area 3

Figure B5. Proposed berm to prevent large storm runoff from entering Feed Storage Area 3.

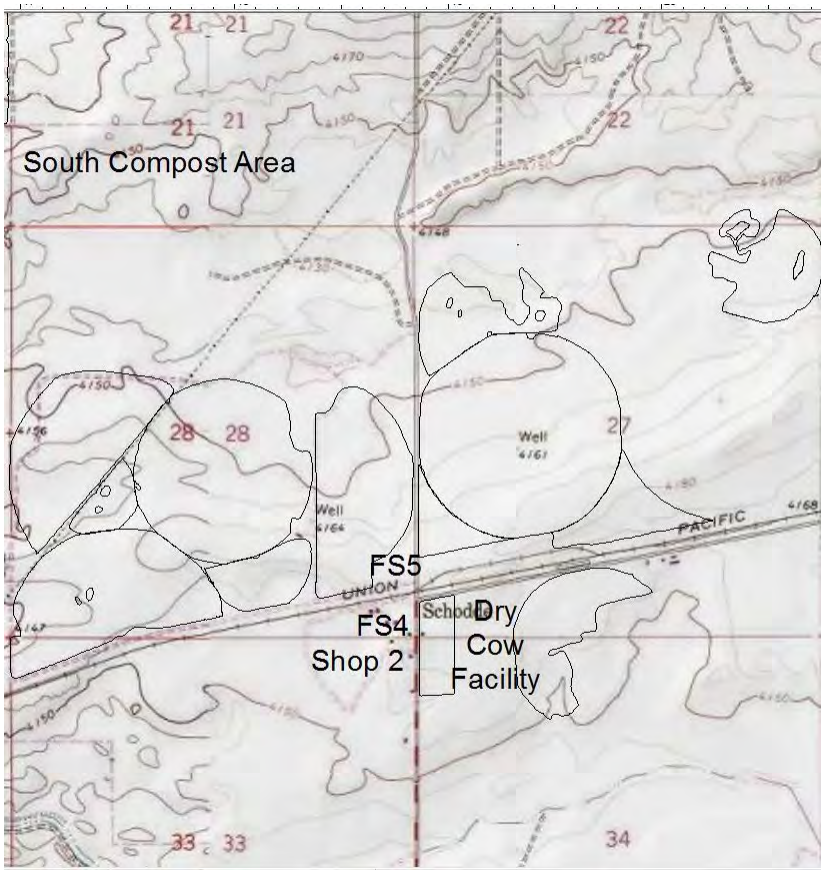


Figure B6. Feed Storage Areas 4 and 5.

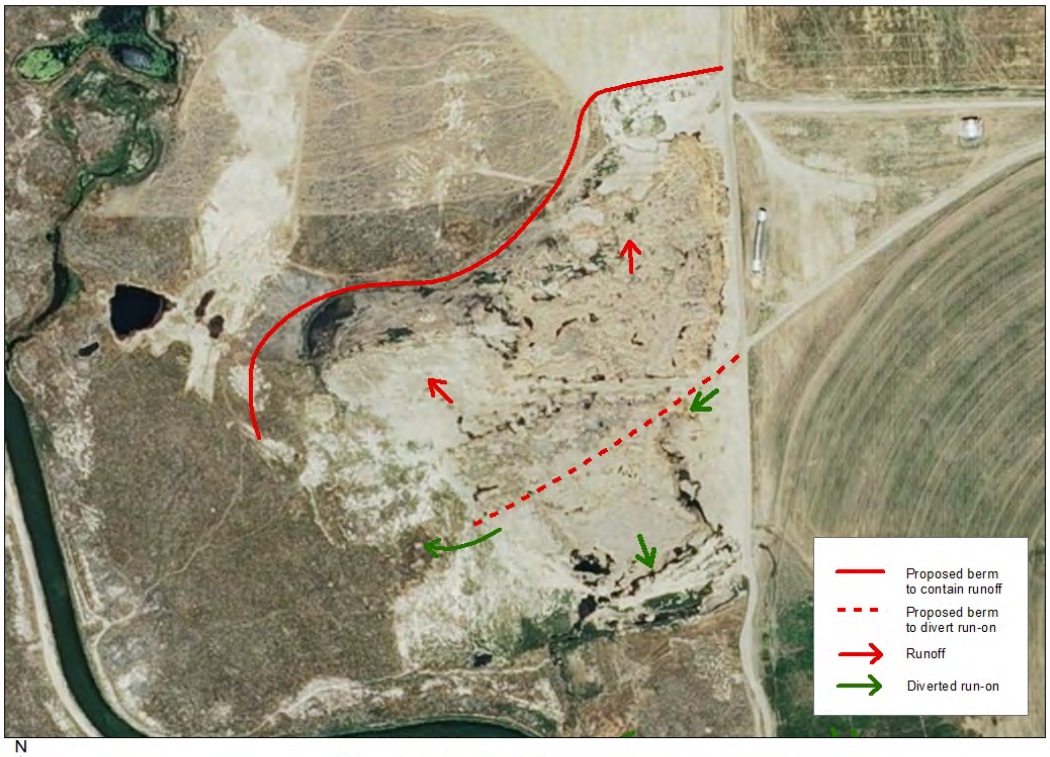


Figure B7: Proposed Berms at North Compost Area

Figure B7. Proposed berms at the north compost area. Solid line is containment berm. Dashed line is diversion berm to prevent run-on.

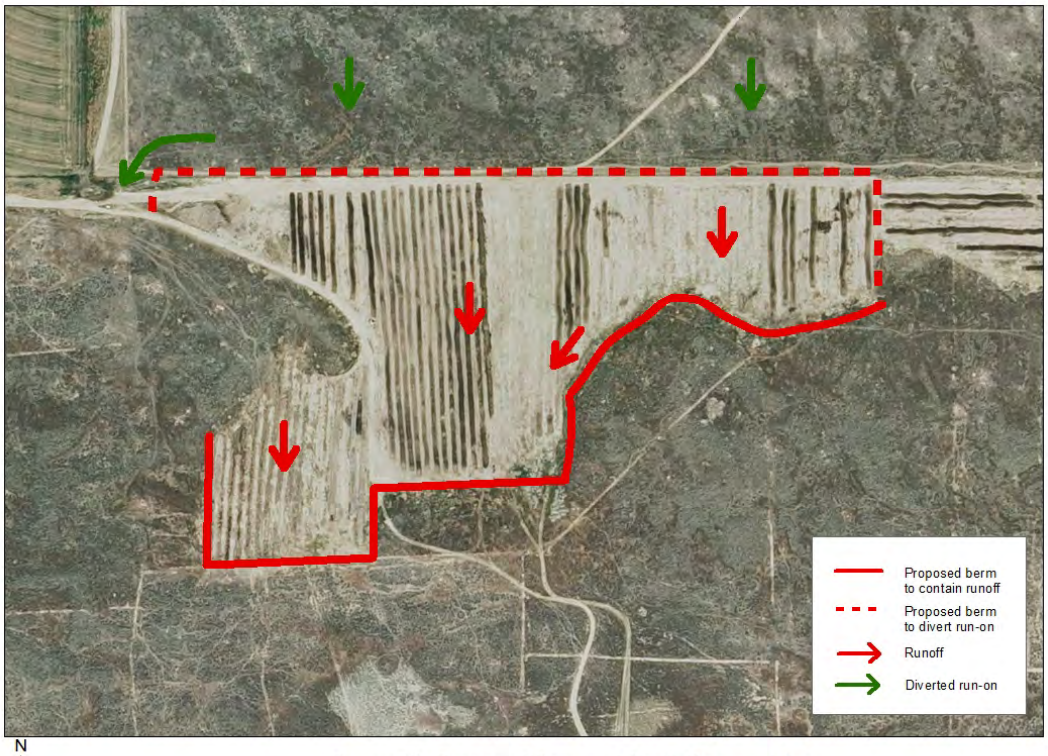


Figure B8: Proposed Berms at South Compost Area

Figure B8. Proposed berms at the south compost area. Solid line is containment berm. Dashed line is diversion berm to prevent run-on.

Nutrient Management Plan Table 1. Soil type across each field

Field Name	Soil Type	Percentage	Approximate Acreage	Surface Texture[1]
100	OWINZA	35	0.25	SIL
	POWER	45	0.32	SIL
	DOLMAN	90	101.07	SIL
	STARBUCK	30	4.48	SIL
	BARRYMORE	50	7.47	SIL
101	BARRYMORE	50	8.66	SIL
	STARBUCK	30	5.2	SIL
	DOLMAN	90	96.42	SIL
102	POWER	85	0.01	SIL
	BARRYMORE	50	14.21	SIL
	STARBUCK	30	8.52	SIL
	DOLMAN	90	2.86	SIL
103	OWINZA	35	3.05	SIL
	POWER	45	3.92	SIL
	BARRYMORE	50	11.32	SIL
	STARBUCK	30	6.79	SIL
104	BARRYMORE	50	0.31	SIL
	STARBUCK	30	0.19	SIL
	POWER	45	12.08	SIL
	OWINZA	35	9.39	SIL
105	DOLMAN	90	18.94	SIL
106	DOLMAN	90	10.23	SIL
107	MINVENO	90	0.96	SIL

	DOLMAN	90	85.46	SIL
108	MINVENO	90	12.23	SIL
	DOLMAN	90	33.77	SIL
	SLUKA	90	7.24	SIL
	PAULVILLE	15	1.73	L
	BANBURY	30	3.47	L
	ROCK OUTCROP	40	4.62	
	SLUKA	90	3.21	SIL
109	ROCK OUTCROP	40	1.06	
	POWER	45	0.03	SIL
	MINVENO	90	32.6	SIL
	DOLMAN	90	21.01	SIL
	PAULVILLE	15	0.4	L
	OWINZA	35	0.02	SIL
	BANBURY	30	0.8	L
110	DOLMAN	90	50.28	SIL
	POWER	45	2.44	SIL
	OWINZA	35	1.9	SIL
111	DOLMAN	90	16.86	SIL
112	DOLMAN	90	5.29	SIL
	MINVENO	90	4	SIL
113	DOLMAN	90	31.71	SIL
	STARBUCK	30	0.59	SIL
	BARRYMORE	50	0.98	SIL
113dry	BARRYMORE	50	65.56	SIL

	STARBUCK	30	39.34	SIL
	CHIARA	85	0.99	SIL
	DOLMAN	90	14.7	SIL
114	DOLMAN	90	11.56	SIL
115	BARRYMORE	50	49.94	SIL
	OWINZA	35	17.94	SIL
	STARBUCK	30	29.96	SIL
	DOLMAN	90	10.16	SIL
	POWER	85	9.94	SIL
	POWER	45	23.07	SIL
116	ROCK OUTCROP	40	127.47	
	OWINZA	35	28.4	SIL
	BANBURY	30	95.6	L
	CHIARA	85	0.02	SIL
	POWER	45	36.51	SIL
	PAULVILLE	15	47.8	L
	DOLMAN	90	37.07	SIL
	WATER	100	1.22	
	BARRYMORE	50	14.38	SIL
	STARBUCK	30	8.63	SIL
117	BARRYMORE	50	17.8	SIL
	DOLMAN	90	1.46	SIL
	STARBUCK	30	10.68	SIL
	WATER	100	1.48	
	SLUKA	90	10.63	SIL

	SLUKA	90	7.33	SIL
	PAULVILLE	15	32.85	L
	BANBURY	30	65.7	L
	ROCK OUTCROP	40	87.6	
	CHIARA	85	0.66	SIL
118	MINVENO	90	21.5	SIL
	SLUKA	90	49.43	SIL
	PAULVILLE	15	16.11	L
	BANBURY	30	32.23	L
	ROCK OUTCROP	40	42.97	
119	STARBUCK	30	19.16	SIL
	BARRYMORE	50	31.93	SIL
	BAHEM	90	5.18	SIL
130	DOLMAN	90	46.65	SIL
	POWER	85	36.99	SIL
	CHIARA	85	9.13	SIL
	SLUKA	90	11.19	SIL
	BAHEM	90	8.44	SIL
131	POWER	85	23.72	SIL
	DOLMAN	90	74	SIL
	SLUKA	90	2.99	SIL
	BAHEM	90	6.41	SIL
132	CHIARA	85	8.14	SIL
	DOLMAN	90	4.19	SIL
	BAHEM	90	10.57	SIL

133	SLUKA	90	3.97	SIL
	DOLMAN	90	5.42	SIL
	BAHEM	90	0.02	SIL
	CHIARA	85	8.66	SIL
	STARBUCK	30	2.44	SIL
	BARRYMORE	50	4.06	SIL
	SLUKA	90	36.72	SIL
134	DOLMAN	90	6.01	SIL
	POWER	85	3.46	SIL
	BAHEM	90	1.6	SIL
140	SLUKA	90	16.61	SIL
	DOLMAN	90	8.17	SIL
	STARBUCK	30	10.37	SIL
	SLUKA	90	1.28	SIL
	TULCH	90	26.63	SIL
	BARRYMORE	50	17.28	SIL
141	CHIARA	85	1.77	SIL
	BARRYMORE	50	5.64	SIL
	STARBUCK	30	3.38	SIL
	DOLMAN	90	33.76	SIL
	POWER	85	3.05	SIL
142	CHIARA	85	39.24	SIL
	PAULVILLE	15	0.04	L
	ROCK OUTCROP	40	0.1	
	BANBURY	30	0.07	L

143	STARBUCK	30	0.05	SIL
	CHIARA	85	5.45	SIL
	BARRYMORE	50	0.09	SIL
144	STARBUCK	30	1.07	SIL
	CHIARA	85	22.89	SIL
	ROCK OUTCROP	40	1.95	
	BANBURY	30	1.46	L
	BARRYMORE	50	1.78	SIL
	PAULVILLE	15	0.73	L
	DOLMAN	90	48.89	SIL
145	TULCH	90	0.11	SIL
	BAHEM	90	2.2	SIL
	DOLMAN	90	47.44	SIL
150c	STARBUCK	30	2.71	SIL
	BARRYMORE	50	4.51	SIL
	DOLMAN	90	4.76	SIL
150p	BAHEM	90	6.18	SIL
	SLUKA	90	7.66	SIL
	TULCH	90	42.01	SIL
	BARRYMORE	50	0.96	SIL
	STARBUCK	30	0.58	SIL
	DOLMAN	90	57.99	SIL
152	STARBUCK	30	9.05	SIL
	BAHEM	90	26.41	SIL
	BARRYMORE	50	15.09	SIL

	SLUKA	90	13.11	SIL
153	DOLMAN	90	32.72	SIL
	BAHEM	90	31.15	SIL
	BARRYMORE	50	3.29	SIL
	STARBUCK	30	1.98	SIL
154	BARRYMORE	50	4.02	SIL
	STARBUCK	30	2.41	SIL
	KECKO	85	12.56	FSL
	DOLMAN	90	5.74	SIL
155	DOLMAN	90	35.59	SIL
	STARBUCK	30	0.38	SIL
	BARRYMORE	50	0.64	SIL
200	SLUKA	90	18.75	SIL
	BAHEM	90	94.12	SIL
200c	BAHEM	90	23.02	SIL
	SLUKA	90	6.61	SIL
201	BAHEM	90	109.4	SIL
201c	BAHEM	90	25.66	SIL
202	BAHEM	90	103.86	SIL
	SLUKA	90	5.88	SIL
	BARRYMORE	50	1.83	SIL
	STARBUCK	30	1.1	SIL
202c	STARBUCK	30	0.54	SIL
	BAHEM	90	24.53	SIL
	SLUKA	90	3.3	SIL

	BARRYMORE	50	0.89	SIL
203	BAHEM	90	1.72	SIL
	BARRYMORE	50	29.32	SIL
	STARBUCK	30	17.59	SIL
203c	STARBUCK	30	2.53	SIL
	BAHEM	90	4.85	SIL
	BARRYMORE	50	4.22	SIL
	SLUKA	90	0.49	SIL
204	BAHEM	90	6.73	SIL
	BARRYMORE	50	28.33	SIL
	STARBUCK	30	17	SIL
204c	BAHEM	90	10.47	SIL
	BARRYMORE	50	5.41	SIL
	STARBUCK	30	3.25	SIL
205	BAHEM	90	122.74	SIL
	BARRYMORE	50	4.67	SIL
	STARBUCK	30	2.8	SIL
206	BARRYMORE	50	57.53	SIL
	SHANO	85	1.17	SIL
	BAHEM	90	0.15	SIL
	STARBUCK	30	34.52	SIL
206ec	BAHEM	90	0.1	SIL
	BARRYMORE	50	9.1	SIL
	STARBUCK	30	5.46	SIL
206wc	POWER	50	0.05	SIL

	STARBUCK	30	4.13	SIL
	BARRYMORE	50	6.88	SIL
	SHANO	85	3.61	SIL
	BAHEM	90	0.56	SIL
	MCCAIN	30	0.03	SIL
207	STARBUCK	30	5.45	SIL
	SHANO	85	31.4	SIL
	BARRYMORE	50	9.09	SIL
207c	STARBUCK	30	3.71	SIL
	BARRYMORE	50	6.18	SIL
	SHANO	85	8.96	SIL
210	SLUKA	90	54.28	SIL
210hl	BAHEM	90	47.4	SIL
	SLUKA	90	7.04	SIL
211	BAHEM	90	81.69	SIL
300	BARRYMORE	50	21.88	SIL
	BAHEM	90	77.18	SIL
	STARBUCK	30	13.13	SIL
301	STARBUCK	30	28.31	SIL
	SHANO	85	10.79	SIL
	BARRYMORE	50	47.18	SIL
302a	STARBUCK	30	4.61	SIL
	BARRYMORE	50	7.68	SIL
303a	BARRYMORE	50	8.59	SIL
	STARBUCK	30	5.15	SIL

304	MCCAIN	30	32.44	SIL
	POWER	50	54.07	SIL
305	POWER	50	40.35	SIL
	MCCAIN	30	24.21	SIL
	POWER	45	10.56	SIL
	OWINZA	35	8.21	SIL
306	POWER	50	58.64	SIL
	MCCAIN	30	35.18	SIL
307	POWER	50	33.7	SIL
	MCCAIN	30	20.22	SIL
308	POWER	50	28.91	SIL
	MCCAIN	30	17.35	SIL
309	POWER	50	10.7	SIL
	MCCAIN	30	6.42	SIL
400	MCCAIN	30	39.11	SIL
	POWER	50	65.18	SIL
400 401 dry corners	BARRYMORE	50	0.01	SIL
	STARBUCK	30	0.01	SIL
	MCCAIN	30	21.23	SIL
	POWER	50	35.39	SIL
401	POWER	50	20.38	SIL
	MCCAIN	30	12.23	SIL
402	SLUKA	90	37.16	SIL
	TULCH	90	1.57	SIL
	CHIARA	85	5.76	SIL

	BAHEM	90	43.02	SIL
402c	BAHEM	90	28.73	SIL
	SLUKA	90	11.29	SIL
	TULCH	90	20.84	SIL
	DOLMAN	90	0	SIL
	ROCK OUTCROP	35	1.63	
	CHIARA	85	0.71	SIL
	BANBURY	55	2.57	L
404	SLUKA	90	26.24	SIL
	BANBURY	55	1.49	L
	CHIARA	85	0.92	SIL
	BAHEM	90	26.52	SIL
	ROCK OUTCROP	35	0.95	
405	BARRYMORE	50	3.03	SIL
	SLUKA	90	11.7	SIL
	CHIARA	85	0.71	SIL
	STARBUCK	30	1.82	SIL
	BAHEM	90	15.9	SIL
420	POWER	50	1.41	SIL
	MCCAIN	30	0.84	SIL
	STARBUCK	30	0.64	SIL
	BARRYMORE	50	1.07	SIL
	SLUKA	90	19.33	SIL
	POWER	85	45.45	SIL
421	POWER	50	64.69	SIL

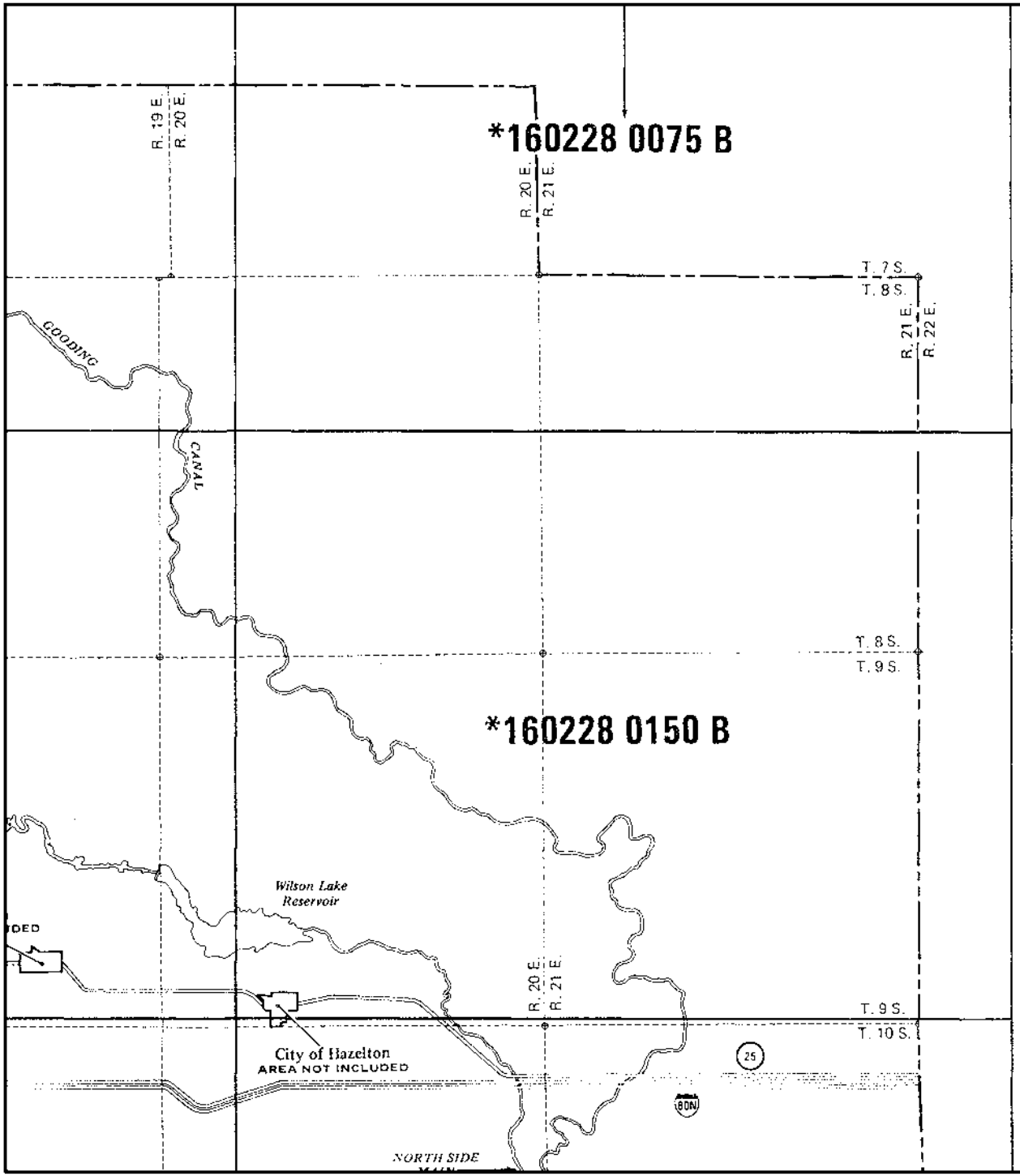
	MCCAIN	30	38.82	SIL
422dc	POWER	50	53.7	SIL
	MCCAIN	30	32.22	SIL
422p	POWER	50	67.7	SIL
	MCCAIN	30	40.62	SIL
423 &424	STARBUCK	30	0.84	SIL
	POWER	85	62.52	SIL
	POWER	50	6.79	SIL
	MCCAIN	30	4.07	SIL
	BARRYMORE	50	1.4	SIL
	TULCH	90	39	SIL
430	POWER	85	23.74	SIL
	STARBUCK	30	2	SIL
	BARRYMORE	50	3.33	SIL
	SLUKA	90	111.02	SIL
	SHANO	85	0.47	SIL
431	SHANO	85	5.45	SIL
	SLUKA	90	90.84	SIL
432dry	SLUKA	90	17.23	SIL
	BANBURY	55	3.31	L
	BAHEM	90	1.24	SIL
	ROCK OUTCROP	35	2.11	
432p	BANBURY	55	2.15	L
	SLUKA	90	32.98	SIL
	BAHEM	90	23.77	SIL

	ROCK OUTCROP	35	1.37	
433	SLUKA	90	4.98	SIL
	BAHEM	90	9.13	SIL
434	POWER	85	13.78	SIL
	SLUKA	90	5.3	SIL
435	SHANO	85	0.17	SIL
	STARBUCK	30	3.36	SIL
	SLUKA	90	2.13	SIL
	POWER	85	4.21	SIL
	BARRYMORE	50	5.6	SIL
440	POWER	85	48.85	SIL
440 to 444 dry corners	POWER	85	2944.05	SIL
	POWER	50	9.44	SIL
	MCCAIN	30	5.67	SIL
441	POWER	50	1.02	SIL
	MCCAIN	30	0.61	SIL
	POWER	85	103.28	SIL
442	MCCAIN	30	1.88	SIL
	POWER	50	3.14	SIL
	POWER	85	15.87	SIL
443	POWER	50	15.95	SIL
	POWER	85	58.17	SIL
	MCCAIN	30	9.57	SIL
444	POWER	85	63.73	SIL
	BARRYMORE	50	5.04	SIL

	STARBUCK	30	3.02	SIL
450	MCCAIN	30	32.71	SIL
	WATER	100	9.44	
	POWER	50	54.52	SIL
451	OWINZA	35	2.65	SIL
	WATER	100	0.16	
	MCCAIN	30	22.82	SIL
	POWER	50	38.04	SIL
	POWER	45	3.41	SIL
452	MCCAIN	30	18.35	SIL
	POWER	50	30.58	SIL
	WATER	100	0.44	
500	POWER	85	6.24	SIL
	SLUKA	90	44.58	SIL
501	POWER	85	50.82	SIL
	SLUKA	90	2.07	SIL
502	POWER	85	32.9	SIL
	SLUKA	90	19.49	SIL
503	POWER	85	1.4	SIL
	SLUKA	90	50.95	SIL
504	STARBUCK	30	8.74	SIL
	SLUKA	90	28.72	SIL
	BARRYMORE	50	14.57	SIL
505	BARRYMORE	50	12.64	SIL
	STARBUCK	30	7.58	SIL

	BAHEM	90	32.94	SIL
506	BAHEM	90	32.34	SIL
	STARBUCK	30	3.19	SIL
	SLUKA	90	1.66	SIL
	BARRYMORE	50	5.31	SIL
507	BAHEM	90	38.42	SIL
	BARRYMORE	50	16.02	SIL
	STARBUCK	30	9.61	SIL
601	POWER	85	19.05	SIL
	POWER	50	15.73	SIL
	MCCAIN	30	9.44	SIL
700	SLUKA	90	52.24	SIL
	CHIARA	85	6.48	SIL
701	CHIARA	85	2.63	SIL
	SLUKA	90	20.74	SIL
	ROCK OUTCROP	35	0	
	BANBURY	55	0	L
702	CHIARA	85	14.64	SIL
	SLUKA	90	2.79	SIL
703	STARBUCK	30	0	SIL
	BARRYMORE	50	0.01	SIL
	SLUKA	90	19.66	SIL
Compost Site	CHIARA	85	2.6	SIL
	ROCK OUTCROP	40	12.71	
	BANBURY	30	9.53	L

	PAULVILLE	15	4.77	L
	STARBUCK	30	3.13	SIL
	DOLMAN	90	13.43	SIL
	BARRYMORE	50	5.21	SIL
d1 runoff area	SLUKA	90	1.13	SIL
	TULCH	90	66.22	SIL
	DOLMAN	90	17.39	SIL
d2 ro area	SLUKA	90	1629.27	SIL
	BARRYMORE	50	95.89	SIL
	STARBUCK	30	57.54	SIL
	POWER	85	2944.05	SIL



N

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

JEROME COUNTY, IDAHO
(UNINCORPORATED AREAS)

MAP INDEX
PANELS PRINTED: 100, 175, 200

COMMUNITY-PANEL NUMBERS
160228 0001-0200

EFFECTIVE DATE:
SEPTEMBER 4, 1985

Federal Emergency Management Agency

FACT SHEET FOR STAKEHOLDERS

Unmapped Areas on Flood Hazard Maps

Understanding Zone D

BACKGROUND

Flood hazard maps, also known as Flood Insurance Rate Maps (FIRMs), are important tools in the effort to protect lives and properties in communities across the nation. By showing the extent to which areas of a community and individual properties are at risk for flooding, these flood maps help residents and business owners make better financial decisions about protecting their property.

However, flood risks are dynamic and can change over time. Water flow and drainage patterns can be altered dramatically due to surface erosion, land use, and natural forces. As a result, flood maps for those areas may no longer accurately portray the current flood risks. Consequently, the Federal Emergency Management Agency (FEMA) has been updating the nation's flood maps using the latest data gathering and mapping technology and new flood maps are being issued nationwide.

UNDERSTANDING ZONE D

The level of flood risk is indicated on the flood map by a letter. For example, flood zones labeled with the letters B, C or X represent moderate- and low-risk areas. Flood zones identified by the letters A or V represent high-risk areas, known as Special Flood Hazard Areas (SFHAs). On some flood maps, there may also be a zone labeled with the letter D. The Zone D designation is used for areas where there are possible but undetermined flood hazards, as no analysis of flood hazards has been conducted. The designation of Zone D is also used when a community incorporates portions of another community's area where no map has been prepared.

Flood insurance is available in Zone D and property owners should be encouraged to purchase it. However, flood insurance is not federally required by lenders for loans on properties in these zones. Although these areas are often undeveloped and sparsely populated when designated as Zone D, lenders may become aware that new development in such areas has increased the possibility of property damage from flooding. Consequently, they may require coverage as a condition of their loans, even though it is not federally required.

Flood insurance rates for properties in Zone D are commensurate with the uncertainty of the flood risk. Consequently, as seen in the table below, the Zone D premiums can be higher than a standard low-risk X zone premiums and significantly higher than the Preferred Risk Policy (PRP) premiums. If an area is being remapped and properties are going from Zone B, C, or X to Zone D, the insurance agent should determine if grandfathering the existing low-risk zone for future rating will provide a lower premium than using the new Zone D premium. Also, since Zone D is not considered an SFHA, a property that was designated in Zone D on the previous map and is newly designated in an SFHA by a map revision effective may be insured under the PRP based on the 2-year PRP eligibility extension. More details on grandfathering and PRP Extension can be found at www.fema.gov/library/viewRecord.do?id=3745.

Premium Comparison (October 1, 2011 Rates)

FIRM Date*/Building Type	Preferred Risk Policy (Zone B, C, X)	Standard Rates (Zone B, C, X)	Standard Rates (Zone D)
Pre-FIRM Home**	$211	$778	$575
Post-FIRM Home**	$211	$778	$952
Pre-FIRM Manufactured Home***	$211	$778	$575
Post-FIRM Manufactured Home***	$211	$778	$1,197

*Pre-FIRM buildings are constructed prior to 12/31/74 or the effective date of the initial flood map; Post-FIRM buildings are constructed on or after the effective date of the initial flood map

**Based on $50,000 in building and $20,000 in contents coverage; single family home on a slab with no garage; $1,000 deductible for building and for contents for Zone B, C, X and post-FIRM D; $2,000 deductible for pre-FIRM Zone D

***Based on $50,000 in building and $20,000 in contents coverage; permanently affixed to a lot with no enclosure; $1,000 deductible for building and for contents for Zone B, C, X and post-FIRM D; $2,000 deductible for pre-FIRM Zone D

To learn more about flood insurance coverage and options, visit www.FloodSmart.gov. For more information about FEMA's latest mapping initiatives, visit www.fema.gov/plan/prevent/fhm/index.shtm.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Horizon East Fields

Oct 13, 2012

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

User Remarks:

U.S. Fish and Wildlife Service

National Wetlands Inventory

Horizon North Fields

Oct 13, 2012

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

User Remarks:

U.S. Fish and Wildlife Service

National Wetlands Inventory

Horizon Northwest Fields

Oct 13, 2012

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

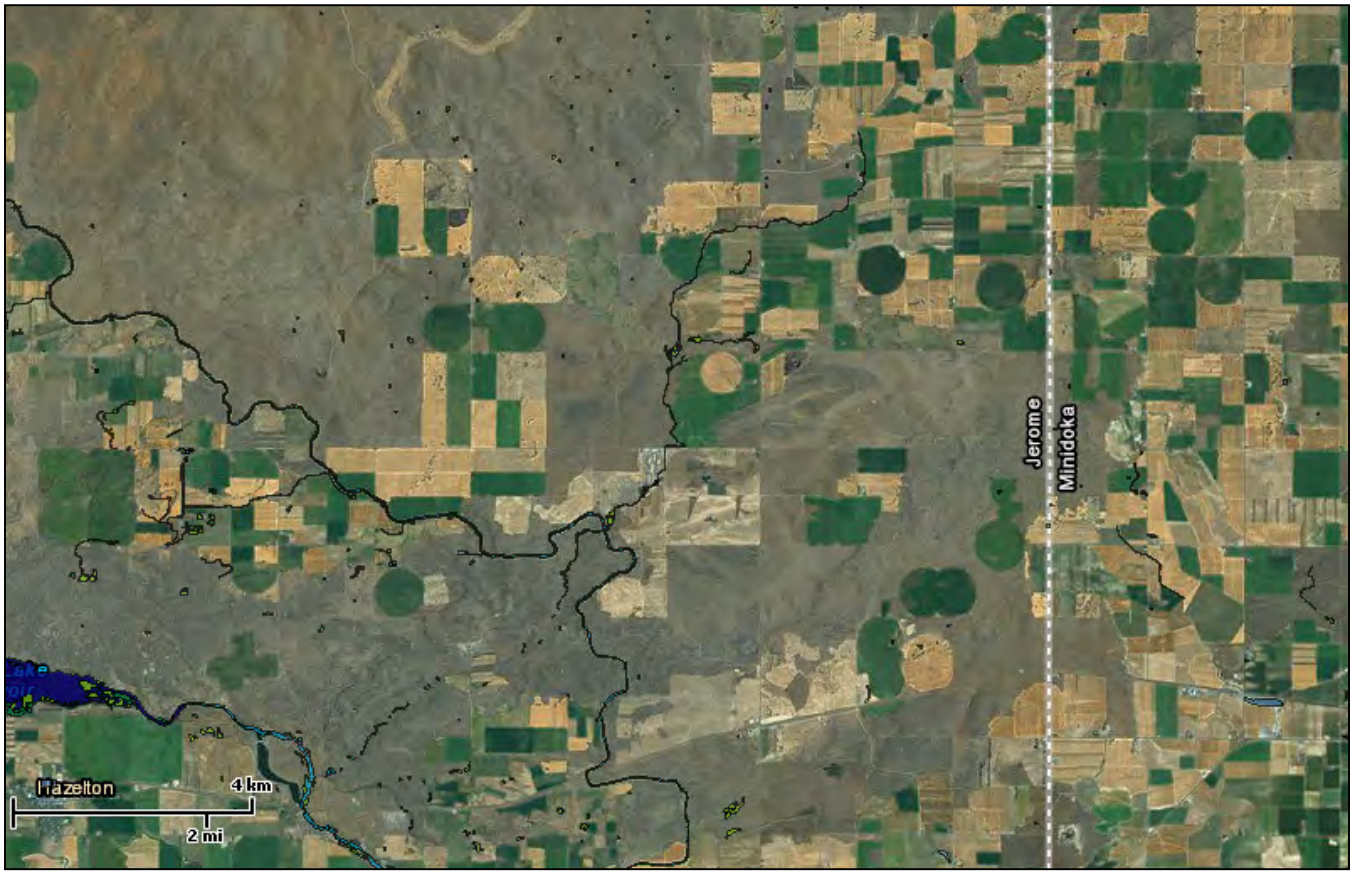
User Remarks:

U.S. Fish and Wildlife Service

National Wetlands Inventory

Horizon Organic Dairy: Wetlands

Oct 13, 2012



Wetlands

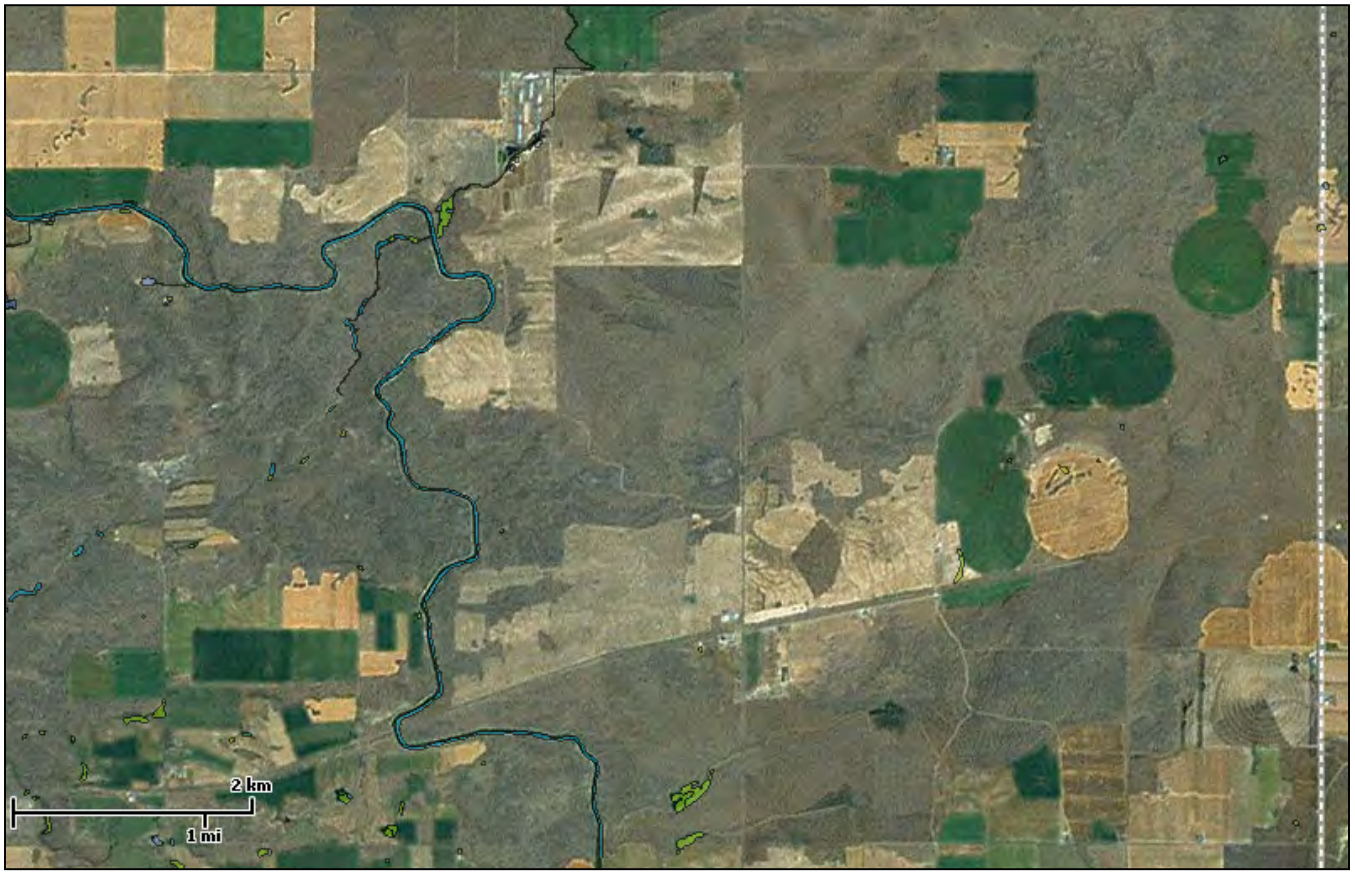
- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

User Remarks:

U.S. Fish and Wildlife Service
National Wetlands Inventory

Horizon South Fields

Oct 13, 2012



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

User Remarks:

U.S. Fish and Wildlife Service
National Wetlands Inventory

Horizon Organic Dairy

Oct 13, 2012

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

User Remarks:

West Dairy Wetlands

U.S. Fish and Wildlife Service

National Wetlands Inventory

Horizon West Fields

Oct 13, 2012

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

User Remarks:

NUTRIENT RISK ANALYSIS AND MITIGATION

Fields with an overall Risk Rating of High or Very High
Mitigating practices, in addition to the BMP's below, are listed after each field's risk assessment.

140
150p
150c
155
420
423-424
430
431
441

Fields adjacent to the Main Drain or to a ditch draining to the Main Drain
Compost will only be applied to these fields when it can be incorporated (on pastures it will be aerated) within 72 hours.
Each of these fields will have a 35' vegetated buffer (VB) and/or berming (B).

140 Berm when new path for Main Drain is built
144 VB on northwest side
150p VB (in field) along Main Drain
150c VB at southwest corner adjacent to ditch flowing to the west
155 VB at north end adjacent to Main Drain
402c
405 VB at north end adjacent to drainage ditch
420 VB at north and south ends
421 Berm along south side to prevent runoff from flowing into the North Heifer Lots
422p VB at southeast corner
423&424 VB on both sides of Main Drain flowing through field
430 VB along drain ditch
431 VB along drain ditch
434 VB along drain ditch
440 VB along drain ditch
441 VB along drain ditch
501 VB along drain ditch
502 VB along drain ditch
504 VB on west side of 507
505 VB on west side of 507
506 VB on west side of 507
507 VB on west side of 507
601 VB on south side

BMP's Used on Horizon Organic Dairy

BMP's Used on Permanent Pasture Fields Are Marked With ***PP***
BMP's Used on Cropland Are Marked With ***CL***
BMP's Used on Dry Pasture Are Marked With ***DP***

CL after corn Chiseling and Subsoiling
CL after barley, PP Conservation Cover
CL Conservation Tillage
CL **after barley** Cover/Green Manure Crop
CL Crop Rotation
CL Residue Management
CL PP Irrigation Management
CL PP Sprinkler System
PP Watering Facility
PP Grazing Land Mechanical Treatment- Aerway Pasture Aerator
PP Prescribed Grazing
CL PP Vegetative Buffer or Filter Strip
CL PP Berm
Dairy Sediment Basin
Dairy Composting Facility

Manure Nutrient Application Rate

Compost land application will be 75% of the crop uptake rate on fields with a soil test phosphorus level greater than 40 and less than 80 ppm. On fields with a soil test phosphorus level of 80 ppm or greater, application will be 50% of the crop uptake rate in order to reduce higher levels.

Phosphorus Runoff Risk Assessment

FIELD: 100
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 45

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Low

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 101
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 46.2

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 102
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 48.8

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 66.7

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration of this field will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 103
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 61.9

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 44.4

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration of this field will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 104
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': 38
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data
Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 66.7
Comments:
Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration of this field will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data
Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data
Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 105
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 49.5

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Medium

Phosphorus Application Method: 41.2

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 106
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 49.8

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 107
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 56.1

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 108
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 81.9

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Medium

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 109
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 48.2

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 110
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 56.9

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 111
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 91.6

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 27.5

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 112
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 102

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 27.5

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 113
Overall Risk Rating: Low
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Medium

Soil Test Depth / Phosphorus Concentration 0-12'': 18

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 89.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: *Mechanical aeration of this field will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 113dry
Overall Risk Rating: Low

Soil Test P **Risk Rating:** High
Soil Test Depth / Phosphorus Concentration 0-12'': 27
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low
Manure Application Rate: 6.3
Comments: Sufficient soil P is available for normal agronomic production.

Manure Phosphorus Application Method **Risk Rating:** Very Low or N.A.
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *This field is in a continuous crop of dryland pasture grass, which provides cover, nutrient uptake, and filters nutrients from runoff. The only nutrients applied to this field are from grazing cows.*

Irrigation Runoff Class (Non-Irrigated) **Risk Rating:** Low
Comments: The likelihood for runoff to occur on this field is low to very low.

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data
Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 114
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Medium

Soil Test Depth / Phosphorus Concentration 0-12'': 21

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 40 **Soil Test Type:** Olsen

Comments: Soil test P is in the optimum range for most crops. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 89.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: Organic phosphorus is being applied to a field with surface runoff *with aeration and harrowing for soil incorporation.* Organic phosphorus fertilizer should only be applied to fields with surface runoff when the organic material will be incorporation into the soil as soon after application as possible. Since surface runoff occurs, phosphorus losses will be substantially lower if the organic phosphorus is incorporated into the soil immediately following application. *Note: While this field does have runoff, this runoff flows to a containment basin, where it evaporates.*
This field is in a continuous crop of pasture grass, which provides cover, nutrient uptake, and filters nutrients from runoff. Yearly mechanical aerationand frequent harrowing of this field will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** High

List best management practices that mitigate runoff.

Runoff flows to a containment basin, where it evaporates.

Continuous pasture provides continuous cover as well as filtering and uptake of nutrients.

Comments: Consider implementing Conservation Practices on-field and off-field that reduce or eliminate runoff and erosion.

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 115
Overall Risk Rating: Low

Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': 53
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low
Manure Application Rate: 6.3
Comments:

Manure Phosphorus Application Method **Risk Rating:** Very Low or N.A.
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *This field is in a continuous crop of dryland pasture grass, which provides cover, nutrient uptake, and filters nutrients from runoff. The only nutrients applied to this field are from grazing cows.*

Irrigation Runoff Class (Non-Irrigated) **Risk Rating:** Low
Comments: The likelihood for runoff to occur on this field is low to very low.

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 116
Overall Risk Rating: **Low**

Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 17
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low
Manure Application Rate: 6.3
Comments:

Manure Phosphorus Application Method **Risk Rating:** Very Low or N.A.
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *This field is in a continuous crop of dryland pasture grass, which provides cover, nutrient uptake, and filters nutrients from runoff. The only nutrients applied to this field are from grazing cows.*

Irrigation Runoff N/A **Risk Rating:** Low
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 117
Overall Risk Rating: Low

Soil Test P **Risk Rating:** High
Soil Test Depth / Phosphorus Concentration 0-12'': 26
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low
Manure Application Rate: 6.3
Comments:

Manure Phosphorus Application Method **Risk Rating:** Very Low or N.A.
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *This field is in a continuous crop of dryland pasture grass, which provides cover, nutrient uptake, and filters nutrients from runoff. The only nutrients applied to this field are from grazing cows.*

Irrigation Runoff Class (Non-Irrigated) **Risk Rating:** Low
Comments: The likelihood for runoff to occur on this field is low to very low.

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 118
Overall Risk Rating: Low

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 67

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 6.3

Comments:

Manure Phosphorus Application Method **Risk Rating:** Very Low or N.A.

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *This field is in a continuous crop of dryland pasture grass, which provides cover, nutrient uptake, and filters nutrients from runoff. The only nutrients applied to this field are from grazing cows.*

Irrigation Runoff Class (Non-Irrigated) **Risk Rating:** Low

Comments: The likelihood for runoff to occur on this field is low to very low.

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 119
Overall Risk Rating: Low
Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': 38
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low
Manure Application Rate: 6.3
Comments:

Manure Phosphorus Application Method **Risk Rating:** Very Low or N.A.
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *This field is in a continuous crop of dryland pasture grass, which provides cover, nutrient uptake, and filters nutrients from runoff. The only nutrients applied to this field are from grazing cows.*

Irrigation Runoff Class (Non-Irrigated) **Risk Rating:** Low
Comments: The likelihood for runoff to occur on this field is low to very low.

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 130
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 96

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 27.5

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.8 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 131
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 136

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 44.4

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration and harrowing of this field will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 132
Overall Risk Rating: **Medium**
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 95.2

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 66.7

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration of this field will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 1 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 133
Overall Risk Rating: **Medium**

Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 134

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 44.4

Comments: *Mechanical aeration of this field will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 134

Overall Risk Rating: Medium

Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 84.5

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 27.5

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 140

Best Management Practices for Mitigation of High Risk Rating

Soil Test P *Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year, with reduced nutrient application until the soil test phosphorus levels come down. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field can be done based on this information. In this plan, nutrient applications to this field have been reduced by 50% to help reduce the phosphorus level on this field*

Manure Phosphorus Application Method *This field is in permanent pasture. The pasture provides continuous cover and nutrient uptake. This field does not have runoff, therefore nutrients will not leave the field. Yearly mechanical aeration along with frequent harrowing will incorporate nutrients and will create more surface area for nutrient absorption. Compost will only be applied when it can be incorporated by aeration within 72 hours of application.*

Distance to Surface Water Body *The A & B Irrigation District Main Drain runs along the west side of this field. This ditch will be enlarged, moved to the east, and bermed as part of the implementation of this permit. The berming will prevent manure nutrients from entering this ditch.*

Overall Risk Rating: High

High potential for P loss and adverse effects on surface and/or ground waters. Soil and water conservation measures and phosphorus management plans are needed to reduce the probability of phosphorus loss. Reference risk assessment below and consult a local resource conservation planning specialist and/or the Idaho OnePlan Conservation Planning module to determine appropriate Best Management Practices for this field.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 103.6

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 44.4

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0 **Risk Rating:** Very High

Comments: Because of the high soil test P, runoff should be eliminated by converting to sprinkler irrigation or installing a tailwater recovery system; or sediment retention measures like filter strips or sediment basins should be installed to minimize offsite transport and loss of Phosphorus.

FIELD: 141
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 93.6

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 27.5

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.25 **Risk Rating:** Low

Comments: Consider eliminating runoff by converting to sprinkler irrigation or installing a tailwater recovery system; or sediment retention measures like filter strips or sediment basins should be installed to minimize offsite transport and loss of Phosphorus.

FIELD: 142
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 93.2

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 27.5

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments:

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 1.5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 143
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 57

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments:

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 2 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 144
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 134

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 27.5

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.01 **Risk Rating:** Very High

Comments: *Compost will only be applied when it can be incorporated within 72 hours of application by disking or aeration. A 35' vegetative buffer will also be used adjacent to the Milner-Gooding Canal.*

FIELD: 145
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 121

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year, with reduced nutrient application until the soil test phosphorus levels come down. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field may be done based on this information. In this plan, nutrient applications to this field have been reduced by 50% to help reduce the phosphorus level on this field

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 44.4

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Yearly mechanical aeration along with frequent harrowing will incorporate nutrients and will create more surface area for nutrient /water absorption.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Distance to Surface Water Body: 0.1 **Risk Rating:** High

Comments: *Potential winter runoff is directed through a ditch to West Dairy Pond 1.*

FIELD: 150p

Best Management Practices for Mitigation of High Risk Rating

Soil Test P *Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year based on the phosphorus levels. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field can be done based on this information. In this plan, nutrient applications to this field are at at 75% of crop phosphorus uptake levels.*

Manure Phosphorus Application Method *This field is in cropland rotation, and does not have irrigation runoff. Compost will be incorporated within three days of application on this field. A winter cover crop will be grown most years and turned under in the spring, providing winter cover.*

Distance to Surface Water Body *An irrigation return flow ditch runs along the west side of this field. A 35' vegetated buffer will be used on the west side of this field. This ditch will be enlarged to the south where it runs east of the West Dairy. In this area east of the West Dairy, the ditch will be moved to the east, and bermed as part of the implementation of this permit. The enlarged ditch will carry runoff flow adequately in the winter, so there should not be backup from this ditch onto Field 150.*

Overall Risk Rating: High

High potential for P loss and adverse effects on surface and/or ground waters. Soil and water conservation measures and phosphorus management plans are needed to reduce the probability of phosphorus loss. Reference risk assessment below and consult a local resource conservation planning specialist and/or the Idaho OnePlan Conservation Planning module to determine appropriate Best Management Practices for this field.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 37.1

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments: *Mechanical aeration of this field when in alfalfa will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very High
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.01 **Risk Rating:** Very High
Comments:

FIELD: 150c

Best Management Practices for Mitigation of High Risk Rating

Soil Test P *Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year based on the phosphorus levels. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field can be done based on this information. In this plan, nutrient applications to this field are at 75% of crop phosphorus uptake levels.*

Manure Phosphorus Application Method *This field is in cropland rotation, and does not have irrigation runoff. Compost will be incorporated within three days of application on this field.*

Distance to Surface Water Body *An irrigation return flow ditch runs along the southwest side of this field. A 35' vegetated buffer will be used on the southwest side of this field. This ditch will be enlarged to the south where it runs east of the West Dairy. In this area east of the West Dairy, the ditch will be moved to the east, and bermed well as part of the implementation of this permit. The enlarged ditch will carry runoff flow adequately in the winter, so there should not be backup from this ditch onto Field 150.*

Overall Risk Rating: High

Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 36

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.
Compost will be incorporated within three days of application on this field.

Irrigation Runoff Index (Irrigated) **Risk Rating: :** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High

Comments: *A 35' vegetated buffer will be used on the southwest end of this field adjacent to the drain ditch flowing to the west..*

FIELD: 152
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 106.1

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 27.5

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 153
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 107.8

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 44.4

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration of this field will allow for incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption. Frequent harrowing distributes pasture manure nutrients evenly over the field.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 154
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 55.6

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 66.7

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration and harrowing of this field will allow for incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.3 **Risk Rating:** Low

Comments:.

FIELD: 155

Best Management Practices for Mitigation of High Risk Rating

Soil Test P *Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year based on the phosphorus levels. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field can be done based on this information. In this plan, nutrient applications to this field are at 50% of crop phosphorus uptake levels.*

Manure Phosphorus Application Method *This field is in permanent pasture, and does not have irrigation runoff. Compost will be incorporated by aeration within three days of application on this field.*

Distance to Surface Water Body *The Main Drain runs along the north side of this field. A 35' vegetated buffer will be used along this ditch. This ditch will be enlarged to increase capacity both north of Field 155 and east of the West Dairy.*

Overall Risk Rating: High

Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 86.6

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 44.4

Comments: *Mechanical aeration and harrowing of this field will allow for some incorporation of nutrients, as well as creating more surface area for nutrient/runoff absorption.*

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0 **Risk Rating:** Very High

Comments: Because of the high soil test P, runoff should be eliminated; sediment retention measures like filter strips or sediment basins should be installed to minimize offsite transport and loss of Phosphorus. *Compost will only be applied when it can be incorporated by an aerator within 72 hours. A 35' vegetated buffer is in place since this field is in pasture. No additional nutrients will be applied to this buffer area.*

FIELD: 200
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.

Soil Test P **Risk Rating:** Medium

Soil Test Depth / Phosphorus Concentration 0-12'': 24.3

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 55.1

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 200c
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 16.2
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: Great job!

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 201
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 21.4
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen
Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 201c
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 23
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen
Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 202
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 23.5
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 202c
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 21
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 203
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 24.4
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 203c
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 22
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 204
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 8.1
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data
Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 204c
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 11.8
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 205
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 11.3
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Deep Banding
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 206
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 12.9
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 206ec
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 8.3
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 206wc
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 20.6
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 207
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 13.7
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 207c (part of 207)
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 27.2
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 210hl
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 11.5
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 210p
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 14.5
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 211
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 30.6
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 300
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 72.4

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 301
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** High

Soil Test Depth / Phosphorus Concentration 0-12'': 34.2

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 55.1

Comments: Sufficient soil P may be available for normal agronomic production after fertilization, except for possible response to a starter fertilizer for specific crops like potatoes (see Crop Specific Recommendations). A long range nutrient management plan will assist you in maintaining optimum P levels.

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 302a
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': 39.5
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 303a
Overall Risk Rating: Medium
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': 36.8
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 304
Overall Risk Rating: Medium
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': 58
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 41.2
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 6 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 305
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 53.8

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 6 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 306
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 43.3

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 6 **Risk Rating:** Very High

Comments: No Data

FIELD: 307
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 111.3

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 27.5

Comments:.

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments:

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0 **Risk Rating:** Very High

Comments: A drainageway flowing to the southwest and dead ending in the desert just upstream of the Milner-Gooding Canal drains this field.

FIELD: 308
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 63.9

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Low

Comments: No Data

FIELD: 309
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 44.5

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Low

Comments: No Data

FIELD: 400
Overall Risk Rating: Medium
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** High
Soil Test Depth / Phosphorus Concentration 0-12'': 28.3
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: Great job!

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.6 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 400 401 dry corners
Overall Risk Rating: Low
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': No Valid Soil Test Data
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low
Manure Application Rate: 6.3
Comments:

Manure Phosphorus Application Method **Risk Rating:** Very Low
Manure Application Method: N/A
Comments: Great job!

Irrigation Runoff Class (Non-Irrigated) **Risk Rating:** Low
Comments: The likelihood for runoff to occur on this field is low to very low.

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.6 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 401
Overall Risk Rating: Medium
Low potential for phosphorus loss, if current farming practices are maintained.
Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': 35.1
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: Great job!

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 2 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 402c
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Medium

Soil Test Depth / Phosphorus Concentration 0-12'': 24

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow. *Compost will only be applied when it can be incorporated within 72 hours.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments:

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.1 **Risk Rating:** High

Comments: *This field uses wheelline irrigation. There is a strip of desert between this field and the Main Drain to the west, serving as a >400' filter. The water flow here is to the west.*

FIELD: 402p
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 24
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0 **Risk Rating:** Low
Comments:

FIELD: 404
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Medium

Soil Test Depth / Phosphorus Concentration 0-12'': 23.1

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 55.1

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.45 **Risk Rating:** Low

Comments: Consider eliminating runoff by installing sediment retention measures like filter strips or sediment basins to minimize offsite transport and loss of Phosphorus.
Winter runoff from the south end of this field would flow south across high desert land into a

drainageway that dead ends in a low area. Runoff from the north end of 404 would flow into a drain along the north side that flows west and dead ends. Neither drain directly connects with a conduit to waters of the US.

FIELD: 405
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** High

Soil Test Depth / Phosphorus Concentration 0-12'': 31.4

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 89.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration of this field in the fall serves to incorporate surface nutrients and to open up the soil to increase infiltration.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.01 **Risk Rating:** Very High

Comments: *An irrigation return flow ditch runs along the north side of this field. A 35' vegetated strip is in place, since this field is in pasture. No additional nutrients will be applied to this 35' strip.*

FIELD: 420

Best Management Practices for Mitigation of High Risk Rating

Soil Test P *Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year based on the phosphorus levels. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field can be done based on this information. In this plan, nutrient applications to this field are at 50% of crop phosphorus uptake levels, in order to reduce soil test phosphorus.*

Manure Phosphorus Application Method *This field is in permanent pasture. Mechanical aeration allows some incorporation, and increases the surface area for nutrient absorption. The pasture provides continuous cover and nutrient uptake. This field does not have irrigation related runoff. Compost will only be applied to this field when it can be incorporated within 72 hours.*

Distance to Surface Water Body *An irrigation return flow ditch runs along the north side of this field. Another drainageway flows to the west about 350' south of this field. A 35' vegetated buffer is in place on both the north and south sides of this field; no additional nutrients will be applied to this buffer area.*

Overall Risk Rating: High

High potential for P loss and adverse effects on surface and/or ground waters. Soil and water conservation measures and phosphorus management plans are needed to reduce the probability of phosphorus loss. Reference risk assessment below and consult a local resource conservation planning specialist and/or the Idaho OnePlan Conservation Planning module to determine appropriate Best Management Practices for this field.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 88.9

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 44.4

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.01 **Risk Rating:** Very High

Comments: *See above*

FIELD: 421
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 57.2

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 66.7

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration allows incorporation, and increases the surface area for nutrient absorption.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.18 **Risk Rating:** Medium

Comments: Because of the high soil test P, runoff should be eliminated by converting to sprinkler irrigation or installing a tailwater recovery system; or sediment retention measures like filter strips or sediment basins should be installed to minimize offsite transport and loss of Phosphorus. *Berming needs to be done along the south side of this field to prevent winter runoff from flowing onto the North Heifer Lots. A 35' grass buffer already exists since this field is in pasture; no additional nutrients will be applied to this buffer.*

FIELD: 422dc
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 42.4

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 6.3

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Class (Non-Irrigated) **Risk Rating:** Low

Comments: The likelihood for runoff to occur on this field is low to very low.

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.05 **Risk Rating:** High

Comments: Because of the high soil test P, runoff should be eliminated by converting to sprinkler irrigation or installing a tailwater recovery system; or sediment retention measures like filter strips or sediment basins should be installed to minimize offsite transport and loss of Phosphorus. *The Main Drain flows 300' to the southeast of this field. Only pasture cows add nutrients to this field, so the risk of nutrient movement is small.*

FIELD: 422p

Overall Risk Rating: Medium

Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 143.7

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 66.7

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc. *Mechanical aeration allows incorporation, and increases the surface area for nutrient absorption.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.07 **Risk Rating:** High

Comments: Because of the high soil test P, runoff should be eliminated by converting to sprinkler irrigation or installing a tailwater recovery system; or sediment retention measures like filter strips or sediment basins should be installed to minimize offsite transport and loss of Phosphorus. *The Main Drain flows 300' to the southeast of this field. A 35' vegetated buffer will be used in the area near the Main Drain; no additional nutrients will be applied to this area. Compost will only be applied when it can be incorporated within 72 hours.*

FIELD: 423 &424

Best Management Practices for Mitigation of High Risk Rating

Soil Test P *Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year based on the phosphorus levels. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field can be done based on this information. In this plan, nutrient applications to this field are at 75% of crop phosphorus uptake levels, in order to reduce soil test phosphorus.*

Manure Phosphorus Application Method *This field is in permanent pasture. The pasture provides continuous cover and nutrient uptake. This field does not have irrigation related runoff. Mechanical aeration allows some incorporation, and increases the surface area for nutrient absorption. Compost will only be applied when it can be incorporated within 72 hours.*

Distance to Surface Water Body *An irrigation return flow ditch runs between Fields 423 and 424. 35' grass buffers exist on both sides of the ditch because this field is in pasture; no additional nutrients will be added to this buffer area.*

Overall Risk Rating: High

High potential for P loss and adverse effects on surface and/or ground waters. Soil and water conservation measures and phosphorus management plans are needed to reduce the probability of phosphorus loss. Reference risk assessment below and consult a local resource conservation planning specialist and/or the Idaho OnePlan Conservation Planning module to determine appropriate Best Management Practices for this field.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 53.6

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 66.7

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.01 **Risk Rating:** Very High

Comments: Because of the high soil test P, runoff should be eliminated by converting to sprinkler irrigation or installing a tailwater recovery system; or sediment retention measures like filter strips or sediment basins should be installed to minimize offsite transport and loss of Phosphorus. *These fields are already irrigated with sprinklers.*

FIELD: 430

Best Management Practices for Mitigation of High Risk Rating

Soil Test P *Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year based on the phosphorus levels. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field can be done based on this information. In this plan, nutrient applications to this field are at 75% of crop phosphorus uptake levels, in order to reduce soil test phosphorus.*

Manure Phosphorus Application Method *This field is cropland. This field does not have irrigation related runoff. In most years, a winter cover crop will be grown. Compost will only be applied when it can be incorporated within 72 hours.*

Distance to Surface Water Body *Irrigation drains run along the north and south sides of this field. A 35' grass buffer will be constructed along these ditches; no additional nutrients will be added to this buffer area.*

Overall Risk Rating: High

High potential for P loss and adverse effects on surface and/or ground waters. Soil and water conservation measures and phosphorus management plans are needed to reduce the probability of phosphorus loss. Reference risk assessment below and consult a local resource conservation planning specialist and/or the Idaho OnePlan Conservation Planning module to determine appropriate Best Management Practices for this field.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 38.7

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High
Comments: *Two drain ditches run adjacent to this field. 35' vegetated buffers will be used adjacent to these ditches.*

FIELD: 431

Best Management Practices for Mitigation of High Risk Rating

Soil Test P *Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year based on the phosphorus levels. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field can be done based on this information. In this plan, nutrient applications to this field are at 100% of crop phosphorus uptake levels.*

Manure Phosphorus Application Method *This field is cropland. This field does not have irrigation related runoff. In most years, a winter cover crop will be grown. Compost will only be applied when it can be incorporated within 72 hours.*

Distance to Surface Water Body *An irrigation drains runs along the north side of this field. A 35' grass buffer will be constructed along this ditch; no additional nutrients will be added to this buffer area.*

Overall Risk Rating: High

High potential for P loss and adverse effects on surface and/or ground waters. Soil and water conservation measures and phosphorus management plans are needed to reduce the probability of phosphorus loss. Reference risk assessment below and consult a local resource conservation planning specialist and/or the Idaho OnePlan Conservation Planning module to determine appropriate Best Management Practices for this field.

Soil Test P **Risk Rating:** High

Soil Test Depth / Phosphorus Concentration 0-12'': 33.3

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 55.1

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High
Comments: *A drain ditch runs along the northeast side of this field. A 35' vegetated buffer will be used adjacent to this ditch.*

FIELD: 432dry
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** High

Soil Test Depth / Phosphorus Concentration 0-12'': 27

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Deep Banding

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 6.3

Comments: Sufficient soil P is not available for normal agronomic production. Starter fertilizer is recommended for specific crops like potatoes (see Crop Specific Recommendations). Use recommended application rates and methods to build and maintain soil P at optimum levels.

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Class (Non-Irrigated) **Risk Rating:** Low

Comments: The likelihood for runoff to occur on this field is low to very low.

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Very Low or N.A.

Comments: Because of the high soil test P, runoff should be eliminated by converting to sprinkler irrigation or installing a tailwater recovery system; or sediment retention measures like filter strips or sediment basins should be installed to minimize offsite transport and loss of Phosphorus. *This is a non-irrigated pasture.*

FIELD: 432p
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** High

Soil Test Depth / Phosphorus Concentration 0-12'': 26.5

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 66.7

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: No Data

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Very Low or N.A.

Comments: Because of the high soil test P, runoff should be eliminated by converting to sprinkler irrigation or installing a tailwater recovery system; or sediment retention measures like filter strips or sediment basins should be installed to minimize offsite transport and loss of Phosphorus. *This field drains to a drainageway to the west that dead ends in a low area.*

FIELD: 433
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 57.7

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 66.7

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: *This field is in permanent irrigated pasture, which provides continuous cover and nutrient uptake. This field does not have irrigation related runoff. Mechanical aeration and harrowing will be used to incorporate compost.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Low

Comments: *A drainageway runs to the west of this field. This drainageway dead ends in a low area to the west*

FIELD: 434
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Medium

Soil Test Depth / Phosphorus Concentration 0-12'': 19.8

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 89.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High

Comments: *A drain ditch runs along the north side of this field. A 35' vegetated buffer will be used adjacent to this ditch. Compost will only be applied when it can be incorporated within 72 hours.*

FIELD: 435
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 44

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 89.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.9 **Risk Rating:** Very Low or N.A.

Comments: No Data

FIELD: 440
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** High

Soil Test Depth / Phosphorus Concentration 0-12'': 25.9

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 55.1

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High

Comments: *A drain ditch flows along the north side of this field. A 35' vegetated buffer will be used. Compost will only be applied when it can be incorporated within 72 hours.*

FIELD: 440 to 444 dry corners
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': No Valid Soil Test Data

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Low

Manure Application Rate: 6.3

Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** Medium

Manure Application Method: N/A

Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Class (Non-Irrigated) **Risk Rating:** Low

Comments: The likelihood for runoff to occur on this field is low to very low.

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High

Comments: *A drain ditch flows along the north side of this field. Since this is dryland pasture, no nutrients other than from pasturing cows are applied here.*

FIELD: 441

Best Management Practices for Mitigation of High Risk Rating

Soil Test P *Soil testing on a grid basis will be done every year. An Annual Nutrient Budget will be developed each year based on the phosphorus levels. Grid sampling allows for a more detailed analysis of where in the field the phosphorus levels are highest. Variable nutrient application across the field can be done based on this information. In this plan, nutrient applications to this field are 75% of crop phosphorus uptake levels.*

Manure Phosphorus Application Method *This field is in permanent irrigated pasture, which provides continuous cover and nutrient uptake. This field does not have irrigation related runoff. Mechanical aeration and harrowing will be used to incorporate compost.*

Distance to Surface Water Body *A drainageway runs to the north of this field. A 35' vegetated buffer will be constructed along the drain. Compost will only be applied when it can be incorporated within 72 hours.*

Overall Risk Rating: High

High potential for P loss and adverse effects on surface and/or ground waters. Soil and water conservation measures and phosphorus management plans are needed to reduce the probability of phosphorus loss. Reference risk assessment below and consult a local resource conservation planning specialist and/or the Idaho OnePlan Conservation Planning module to determine appropriate Best Management Practices for this field.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 45.7

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 41.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High
Comments: *A drain ditch flows along the north side of this field. A 35' vegetated buffer will be used.*

FIELD: 442
Overall Risk Rating: **Medium**
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.
Soil Test P **Risk Rating:** High
Soil Test Depth / Phosphorus Concentration 0-12'': 25.7
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 1 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 443
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.
Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': 39.3
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Deep Banding
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 1 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 444
Overall Risk Rating: **Low**

Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 19.7
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 450
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.
Soil Test P **Risk Rating:** High
Soil Test Depth / Phosphorus Concentration 0-12'': 32
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 89.2
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 1 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 451
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 12.4
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 89.2
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 1.5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 452
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.
Soil Test P **Risk Rating:** High
Soil Test Depth / Phosphorus Concentration 0-12'': 32.3
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 30 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 89.2
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject Organic P > 2" or plow; otherwise incorporate > 3" by disking, chiseling, etc.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.6 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 500
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.
Soil Test P **Risk Rating:** Very High
Soil Test Depth / Phosphorus Concentration 0-12'': 73
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 55.5
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.5
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: No Data

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 501
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.
Soil Test P **Risk Rating:** Medium
Soil Test Depth / Phosphorus Concentration 0-12'': 23
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 88.9
Comments:

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: *This field is in permanent irrigated pasture; yearly aeration and frequent harrowing open the soil and allow for some incorporation of nutrients. The pasture provides*

continuous cover and nutrient uptake. This field does not have irrigation related runoff. Compost will only be applied when it can be incorporated by aeration within 72 hours.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.01 **Risk Rating:** Very High

Comments: *An irrigation supply ditch runs to the north of this field. A 35' vegetated buffer will be used along this ditch.*

FIELD: 502
Distance to Surface Water Body
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** High

Soil Test Depth / Phosphorus Concentration 0-12'': 32.9

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Deep Banding

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 88.9

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: *This field is in permanent irrigated pasture; yearly aeration and frequent harrowing open the soil and allow for some incorporation of nutrients. The pasture provides continuous cover and nutrient uptake. This field does not have irrigation related runoff. Compost will only be applied when it can be incorporated by aeration within 72 hours.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.01 **Risk Rating:** Very High

Comments: *An irrigation supply ditch runs to the north of this field. A 35' vegetated buffer will be used along this ditch.*

FIELD: 503
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 45.1

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 88.9

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: No Data

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.1 **Risk Rating:** High

Comments:

FIELD: 504
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Medium

Soil Test Depth / Phosphorus Concentration 0-12'': 16.8

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 88.9

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: *Compost will only be applied when it can be incorporated within 72 hours.*

Comments: No Data

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High.

Comments: *A drainageway flows through this field, 505, 506, and 507. At the west end of 507, the 175' wide tree and grass wheelline area will be used as a vegetated buffer with no additional nutrient application beyond pasturing cows.*

FIELD: 505
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Medium

Soil Test Depth / Phosphorus Concentration 0-12'': 17.3

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 88.9

Comments:

Manure Phosphorus Application Method **Risk Rating:** Undetermined

Manure Application Method: *Compost will only be applied when it can be incorporated within 72 hours.*

Comments: No Data

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High.

Comments: *A drainageway flows through this field, 504, 506, and 507. At the west end of 507, the handline area will be used as a vegetated buffer with no additional nutrient application beyond pasturing cows.*

FIELD: 506
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** High

Soil Test Depth / Phosphorus Concentration 0-12'': 26.5

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 88.9

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: *Compost will only be applied when it can be incorporated within 72 hours.*

Comments: No Data

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High.

Comments: *A drainageway flows through this field, 504, 505, and 507. At the west end of 507, the wheelline area will be used as a vegetated buffer with no additional nutrient application beyond pasturing cows.*

FIELD: 507
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** High

Soil Test Depth / Phosphorus Concentration 0-12'': 32.5

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 66.7

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: *Compost will only be applied when it can be incorporated within 72 hours.*

Comments: No Data

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.0 **Risk Rating:** Very High.

Comments: *A drainageway flows through this field, 504,505, and 506. At the west end of 507, the wheelline area will be used as a vegetated buffer with no additional nutrient application beyond pasturing cows.*

FIELD: 601
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Very High

Soil Test Depth / Phosphorus Concentration 0-12'': 81.2

Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data

Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen

Comments: Soil test P is very high and may be approaching the critical Phosphorus Threshold. Test soils annually to monitor buildup or decline in soil P.

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.

Phosphorus Application Rate: 0

Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.

Phosphorus Application Method: Not Applied

Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium

Manure Application Rate: 89.2

Comments:

Manure Phosphorus Application Method **Risk Rating:** High

Manure Application Method: N/A

Comments: *Compost will only be applied when it can be incorporated within 72 hours.*

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.

Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.

Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.

List best management practices that mitigate runoff (See Appendix B)

Comments: No Data

Distance to Surface Water Body: 0.01 **Risk Rating:** Very High

Comments: The Main Drain *flows to the south of this field. A 35' vegetated buffer will be used adjacent to the drain, with no additional nutrient application beyond pasturing cows.*

FIELD: 700
Overall Risk Rating: Medium
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 8
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.2 **Risk Rating:** Medium
Comments: This field drains to the north into a drainageway that dead ends in the desert.

FIELD: 701
Overall Risk Rating: Low
Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 7
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very Low or N.A.
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.5 **Risk Rating:** Very Low
Comments: *This field drains to a drainageway to the north that flows west through the desert and dead ends in a low area.*

FIELD: 702
Overall Risk Rating: Low
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 7.5
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very High
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.75 **Risk Rating:** Very Low or N.A.
Comments: No Data

FIELD: 703
Overall Risk Rating: Low
Medium potential for phosphorus loss. Some remediation measures should be undertaken to minimize the probability of phosphorus loss.

Soil Test P **Risk Rating:** Low
Soil Test Depth / Phosphorus Concentration 0-12'': 3.4
Soil Test Depth / Phosphorus Concentration 18-24'': No Valid Soil Test Data
Idaho Nutr. Management Standard Threshold: 20 **Soil Test Type:** Olsen
Comments:

Phosphorus Fertilizer Application Rate **Risk Rating:** Very Low or N.A.
Phosphorus Application Rate: 0
Comments: No Data

Phosphorus Fertilizer Application Method **Risk Rating:** Very Low or N.A.
Phosphorus Application Method: Not Applied
Comments: No Data

Manure Phosphorus Application Rate **Risk Rating:** Medium
Manure Application Rate: 55.1
Comments: No Data

Manure Phosphorus Application Method **Risk Rating:** High
Manure Application Method: N/A
Comments: For greatest phosphorus efficiency inject organic P > 2" or plow.

Irrigation Runoff Index (Irrigated) **Risk Rating:** Very High
Comments: No Data

Surface Irrigation or Overhead Irrigation **Risk Rating:** Very Low or N.A.
Comments: No Data

Runoff Best Management Practices **Risk Rating:** Very Low or N.A.
List best management practices that mitigate runoff (See Appendix B)
Comments: No Data

Distance to Surface Water Body: 0.75 **Risk Rating:** Very Low or N.A.
Comments: No Data

FinalEmergency liquid manure application:

From the USDA-NRCS 590 Standard (2012):

"Nutrients must not be surface-applied if nutrient losses offsite are likely. This precludes spreading on:
• frozen and/or snow-covered soils, and
• when the top 2 inches of soil are saturated from rainfall or snow melt.

Exceptions for the above criteria can be made for surface-applied manure when specified conditions are met and adequate conservation measures are installed to prevent the offsite delivery of nutrients. The adequate treatment level and specified conditions for winter applications of manure must be defined by NRCS in concurrence with the water quality control authority in the State. At a minimum, the following site and management factors must be considered:
• slope,
• organic residue and living covers,
• amount and form of nutrients to be applied, and
• adequate setback distances to protect local water quality. "

West Dairy:

With re-routing of upslope runoff around the dairy and into a new bypass channel, the lagoon storage at the west dairy is more than adequate to contain any runoff from the dairy footprint. Therefore, need for emergency liquid manure application is not anticipated. If required, the application area would be the center portion of field 140, which is a closed basin.

East Dairy:

If emergency liquid manure application is required at the east dairy, liquid can be applied to fields 500-507 and 432 and 433 through an existing liquid piping distribution system. These fields are all irrigated grass pasture which provide permanent cover and minimize runoff potential. Fields selected for possible winter land application will have minimal slope or at least will not slope to the main A and B drain ditch. Given these requirements, the best fields are 504, 505, and 506. These are all permanent pasture with minimal slope and located to give the longest distance from either the main drain or drainage out the bottom of section 3 through the road culvert and onto section 4.

Figure A1 will serve as an operating curve for lagoon management. The curves shown are for total lagoon capacity, total – design storm runoff volume, and the daily wastewater generation. The need for emergency application will be indicated at times when the storage remaining in the lagoon is less than the anticipated wastewater generation plus design storm precipitation and runoff from the dairy footprint (shown by the "days to full" curve in Figure A1.

Irrigation water management on the designated fields will anticipate the need for possible winter wastewater application by keeping soil moisture as low as possible without reducing pasture growth or overall health in the late-fall pre-dormancy and dormancy periods. Managing in this fashion will maximize the potential for storage of winter precipitation and wastewater application. Irrigation management on these fields will be aided by portable soil water content meters and/or soil moisture sensors and data loggers to determine soil water content and remaining water-holding capacity in the

crop root zone. For additional discussion see "SCHEDULING WINTER LAND APPLICATION OF LAGOON EFFLUENT BASED ON ET, PRECIPITATION AND SOIL MOISTURE" by Howard Neibling (Presented at the 2010 University of Idaho Nutrient Management Conference, Shoshone)

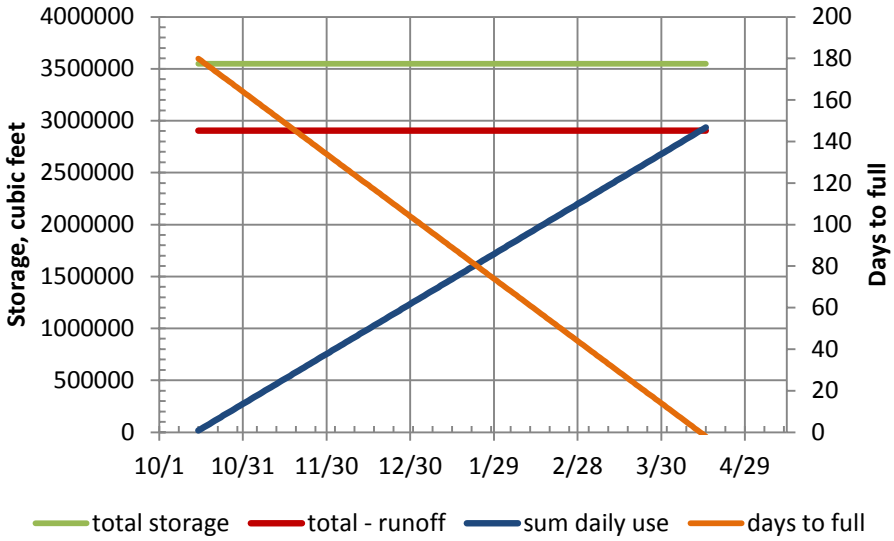


Figure A1. East dairy lagoon storage and cumulative lagoon loading due to daily water inflow. **Curves assume 120000 gallons per day water use and no evaporative loss**. Days before lagoon storage –room for design storm runoff is exceeded are shown in the orange curve.