



# California Regional Water Quality Control Board Central Valley Region

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18 August 2009

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Suisun City, CA 94585

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Mr. Richard Hamilton  
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***REVISED NOTICE OF APPLICABILITY, WATER QUALITY ORDER NO. 2004-0012-DWQ  
GENERAL WASTE DISCHARGE REQUIREMENTS FOR THE DISCHARGE OF BIOSOLIDS  
TO LAND, HAMILTON BROTHERS FARM (SO-2), SOLANO COUNTY***

Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Notice of Intent (NOI) on 15 December 2008 from Synagro West, Inc. and Mr. Richard Hamilton (here after jointly referred to as Discharger) to update their coverage under State Water Resources Control Board (State Water Board) Water Quality Order No. 2004-0012-DWQ, the *General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities* (General Order). The Discharger submitted new information to remove a restriction in the Notice of Applicability (NOA) issued on 16 June 2005 which specified that biosolids could be applied "only every third year." Based on the information in the NOI and subsequent documentation, Central Valley Water Board staff concurs that the project meets the required conditions for approval under the General Order, without limiting application to every third year. This letter serves as formal notice that the General Order is applicable to the sites and discharge described below. This facility has been assigned a Central Valley Water Board order specific tracking number of No. 2004-0012-DWQ-0005.

A copy of the General Order is enclosed for the Discharger; otherwise it may also be viewed at the following web address:

[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2004/wqo/wqo2004-0012.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0012.pdf).

You are urged to familiarize yourself with the contents of the entire General Order. The discharge must be managed in accordance with the requirements contained in the General Order, the information submitted in the RWD and the requirements contained in this NOA.

## **PROJECT DESCRIPTION**

The Discharger's land application area is located in the southeastern portion of Solano County about 5 miles northwest of Rio Vista as shown in Attachment A, which is seven pages as attached and hereto made part of this NOA by reference. Approximately 969 acres of agricultural land, comprised of eight field sites, are owned by Mr. Richard Hamilton and available for biosolids application. However, due to set back buffer zone boundaries and

***California Environmental Protection Agency***

groundwater elevation considerations this NOA allows biosolid application to 628 acres. The application areas are shown in the table below and depicted in Attachment A with their associated set back buffer zone boundaries.

Site ID	Section	Township	Range	Gross Acreage	Allowed Acreage for Application
SO 2-7	30	4N	2E	104	62
SO 2-8	30	4N	2E	56	46
SO 2-9	30	4N	2E	127	99
SO 2-10	30	4N	2E	61	31
SO 2-11	30	4N	2E	187	156
SO 2-12	25	4N	1E	139	91
SO 2-13	19	4N	2E	148	94
SO 2-14	19	4N	2E	147	49
<b>Total</b>				<b>969</b>	<b>628</b>

The terrain is gently to moderately rolling, with slopes of 5 to 17 percent. The sites grow small grains and pasture grasses used for cattle grazing. The pastures are not irrigated and receive approximately 15 inches of precipitation per year as the sole water source. Site drainage is to an intermittent stream that traverses the site north to south. Site soils are typically well-drained clays of the Altamont series, underlain by siltstone at a depth of 25 to 40 inches and exhibit cation exchange capacities ranging from 15 to 30 meq/100 g, which indicates a slight potential for degradation of soil and land productivity from biosolids application. Soil pH values are typically less than 6.3, indicating a moderate potential for crop damage and crop metals accumulation due to soluble metals in biosolids.

Biosolids will be applied only between April 15 and October 15 and will be incorporated into the soil on the same day. Biosolids will be applied in accordance with the Solano County ordinance (e.g. no application during precipitation events). Setbacks that comply with the General Order and Solano County Ordinance will be marked prior to each application. The overall facility perimeter and on-site drainage/creeks will have a boundary of at least 33 feet of unmowed grass or similar vegetation. Therefore, storm water retention is not required.

### **GROUNDWATER CONDITIONS**

The Discharger submitted a Groundwater Assessment Report dated 25 May 2005 to evaluate depth to groundwater and groundwater quality. Five direct push borings were completed at various locations to a depth of 25 feet. The groundwater table was not encountered in any of the borings.

Since the Discharger is not proposing to install groundwater monitoring wells, groundwater quality needs to be protected by limiting biosolids application to areas where the elevation will provide at least a depth of 25 feet to groundwater. The Discharger did not determine the depth to groundwater but did complete borings to a depth of 25 below ground surface. Thus, it is appropriate to limit biosolids application to the correlating elevation that did not reveal groundwater at 25 feet below ground surface as indicated by the direct push borings. Therefore, biosolids application in areas with ground surface elevations less than the elevation

investigated by the direct push boring is prohibited until the Discharger submits more current groundwater data or a groundwater monitoring installation work plan, which will require approval by Central Valley Water Board staff. The allowable application elevations are summarized in the table below and are illustrated in Attachment A.

Site ID	Application Elevation (MSL)	Boring Location	Boring Elevation (MSL)
SO 2-7,8,9	≥190	SO 2-8	190
SO 2-10,11	≥165	SO 2-11	165
SO 2-12	≥145	SO 2-12	145
SO 2-13	≥145	SO 2-13	145
SO 2-14	≥150	SO 2-14	150

### **MONITORING AND REPORTING**

The Discharger must comply with Monitoring and Reporting Program (MRP) No. R5-2009-0847, which is attached and hereto made part of this NOA by reference. This site specific MRP replaces the requirements of the MRP contained in the General Order. The MRP is effective immediately, and requires the submittal of monthly monitoring reports. Until Central Valley Water Board staff formally terminates your coverage under the General Order, monthly monitoring reports need to be submitted even if there is no biosolid land application during the reporting period. Please reference your unique Order No. 2004-0012-DWQ-0005 and your MRP No. R5-2009-0847, when submitting your monitoring reports.

### **GENERAL INFORMATION AND REQUIREMENTS**

The Provision D.1.a of the General Order requires that after the NOA is issued no discharge shall occur until 15 days after submission of the Pre-Application Report. The submittal of a Pre-Application Report prior to discharging under this NOA is not required because:

1. The Discharger was previously regulated under the General Order, and
2. The Discharger has been following Monitoring and Reporting Program No. R5-2005-0823.

The Discharger is required to implement its Biosolids Spill Response Plan and Monitoring and Reporting Plan. The Discharger may only apply biosolids in areas as indicated in Attachment A. Discharge of material other than what is described in the application is prohibited.

This letter serves as formal notice that Water Quality Order No. 2004-0012-DWQ is applicable, as described above. If the discharge violates the terms or conditions of the General Order, the Central Valley Water Board may take enforcement action, including assessment of administrative civil liability.

Prior to implementing any discharge changes, a new NOI must be submitted for continued coverage under the General Order or a Report of Waste Discharge must be submitted for coverage under individual Waste Discharge Requirements (RWD).

In addition, since the Discharger has not investigated site or field-specific depth to groundwater and background water quality, the Discharger shall complete a groundwater investigation, water quality evaluation and antidegradation analysis and include the results and conclusions as a component of any future NOI or RWD. The MRP No. R5-2009-0847 includes a Groundwater Monitoring section that will help you accomplish the necessary sampling.

The required annual fee specified in the annual billing from the State Water Board shall be paid until this NOA is officially terminated. Within **60 days** of the time the discharge regulated by this General Order ceases, the Discharger must notify this office in writing using the Notice of Termination form that accompanies the General Order No. 2004-0012-DWQ.

All monitoring reports submittals, discharge notifications, and questions regarding understanding these requirements as well as general compliance and enforcement shall be directed to Ms. Mary Boyd (916) 464-4676 or [mboyd@waterboards.ca.gov](mailto:mboyd@waterboards.ca.gov). Questions regarding submitting an updated NOI for General Order coverage, or making changes to your permitted activities may be directed to Mr. Robin Merod at (916) 464-4697 or [rmerod@waterboards.ca.gov](mailto:rmerod@waterboards.ca.gov).

Pamela C. Creedon  
Executive Officer

Attachments: Attachment A, Regional, Site and Field Maps  
Attachment B, Monitoring and Reporting Program No. R5-2009-0847

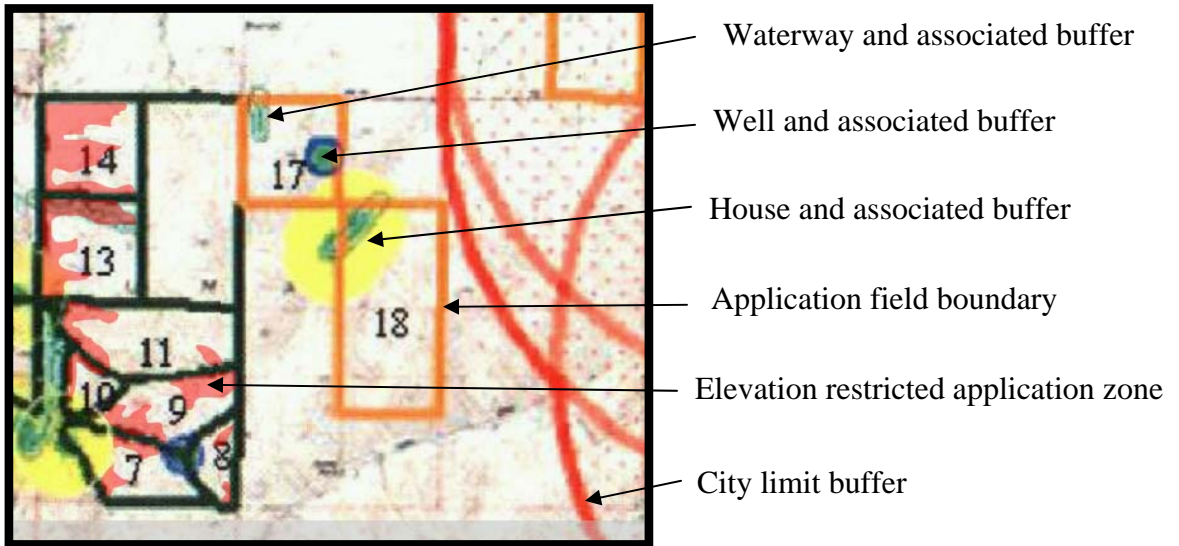
Enclosures: State Water Board Water Quality Order No. 2004-0012-DWQ

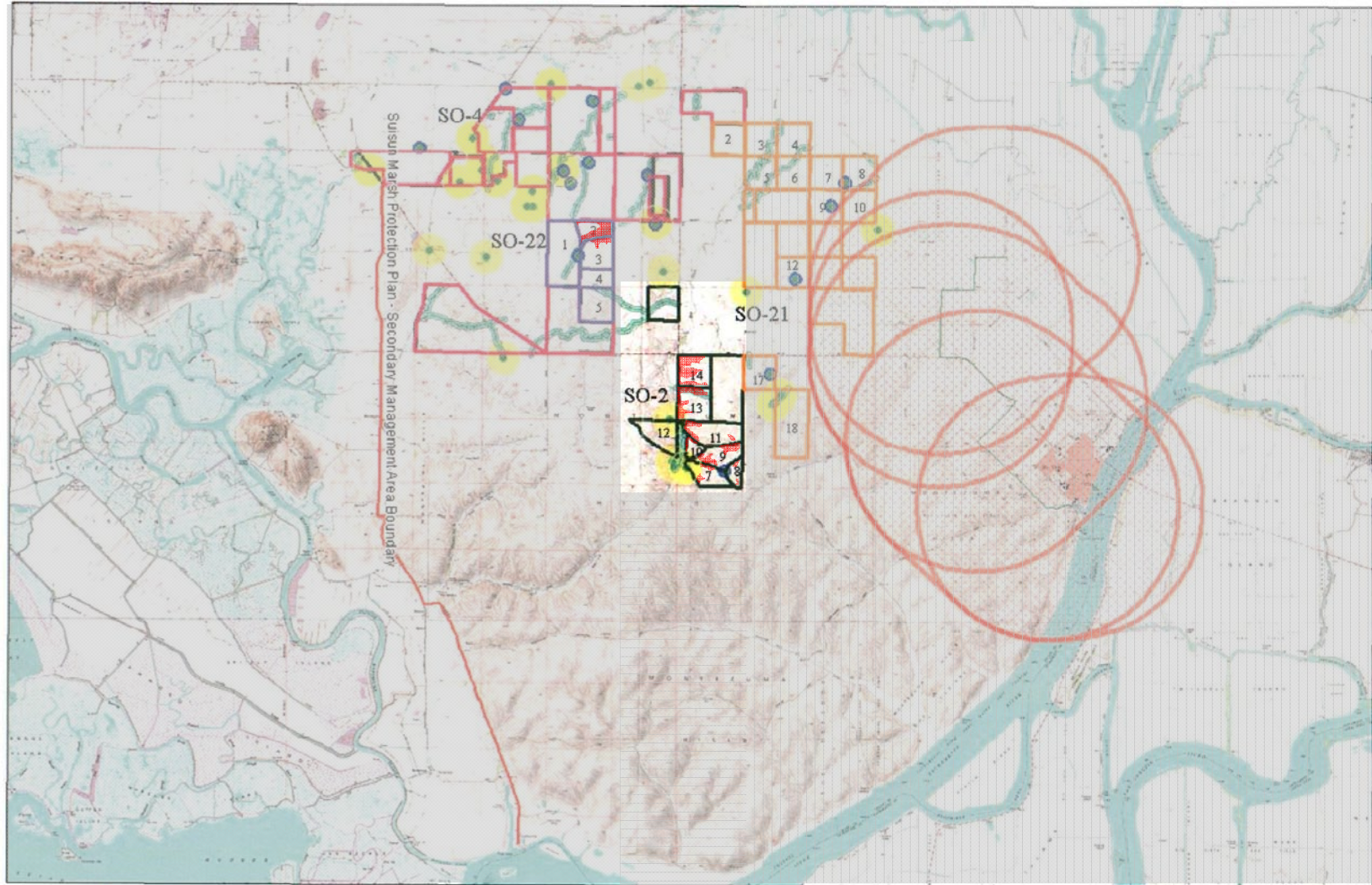
cc w/out enc.: Gordon Innes, Division of Water Quality, State Water Board, Sacramento  
Jeffrey Bell, Solano County Environmental Health Department, Fairfield  
Ken Johnson, Synagro Southwest, Tolleson, AZ

Attachment A

Index and Legend.....Page 1  
Regional Map.....Page 2  
SO02 Site Map.....Page 3  
SO02-7,8,9,10,11 Field Map.....Page 4  
SO02-12 Field Map.....Page 5  
SO02-13 Field Map.....Page 6  
SO02-14 Field Map.....Page 7

Legend for required set backs:





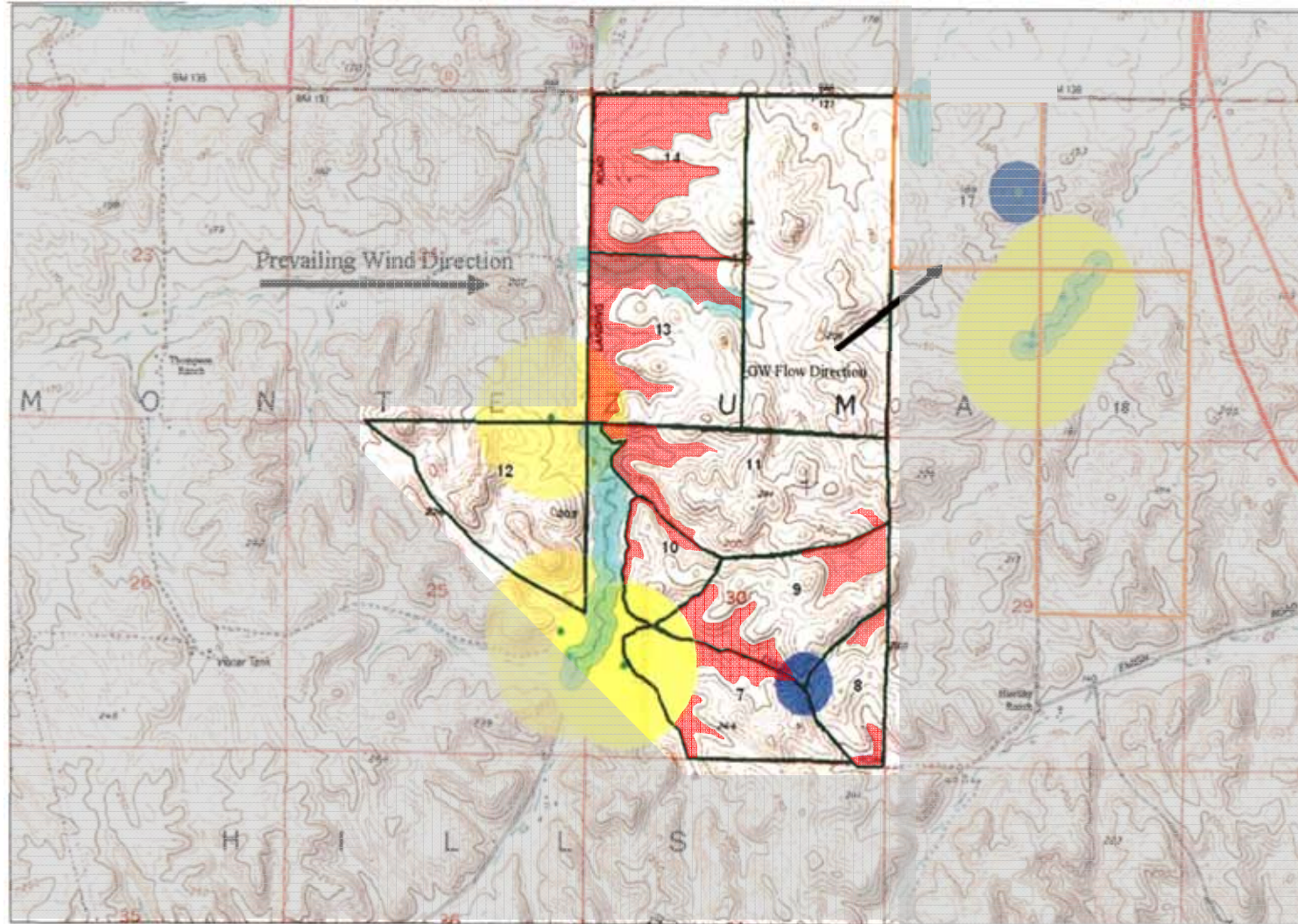
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MN (14.4° E)

Regional Map

0 1 2 3 4 5 mi  
Data Zoom 10-4

Drawing Reference:  
DeLorme XMap 5.0 GIS Editor

**MAP OF BIOSOLID APPLICATION AND BUFFERS  
SYNAGRO - HAMILTON FARMS (SO-2) SITE  
SOLANO COUNTY**



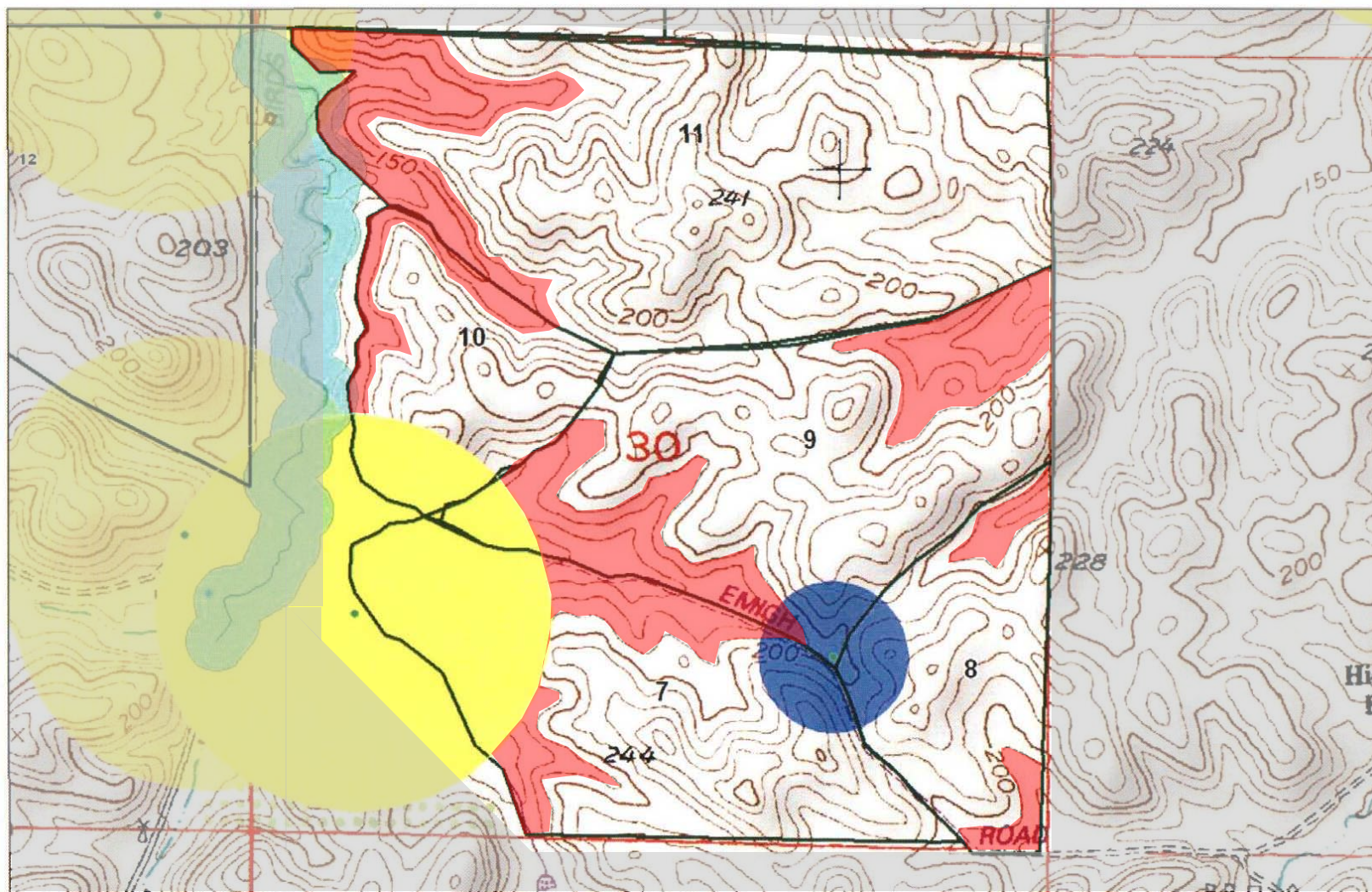
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**SO-2 Hamilton Farms**

0 1/4 1/2 3/4 1 mi  
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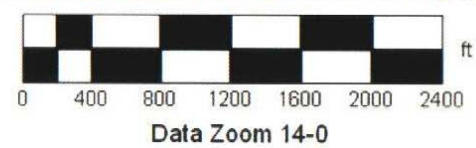
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DeLorme XMap 5.0 GIS Editor

**MAP OF BIOSOLID APPLICATION AND BUFFERS  
SYNAGRO - HAMILTON FARMS (SO-2) SITE  
SOLANO COUNTY**



MN (14.4° E)

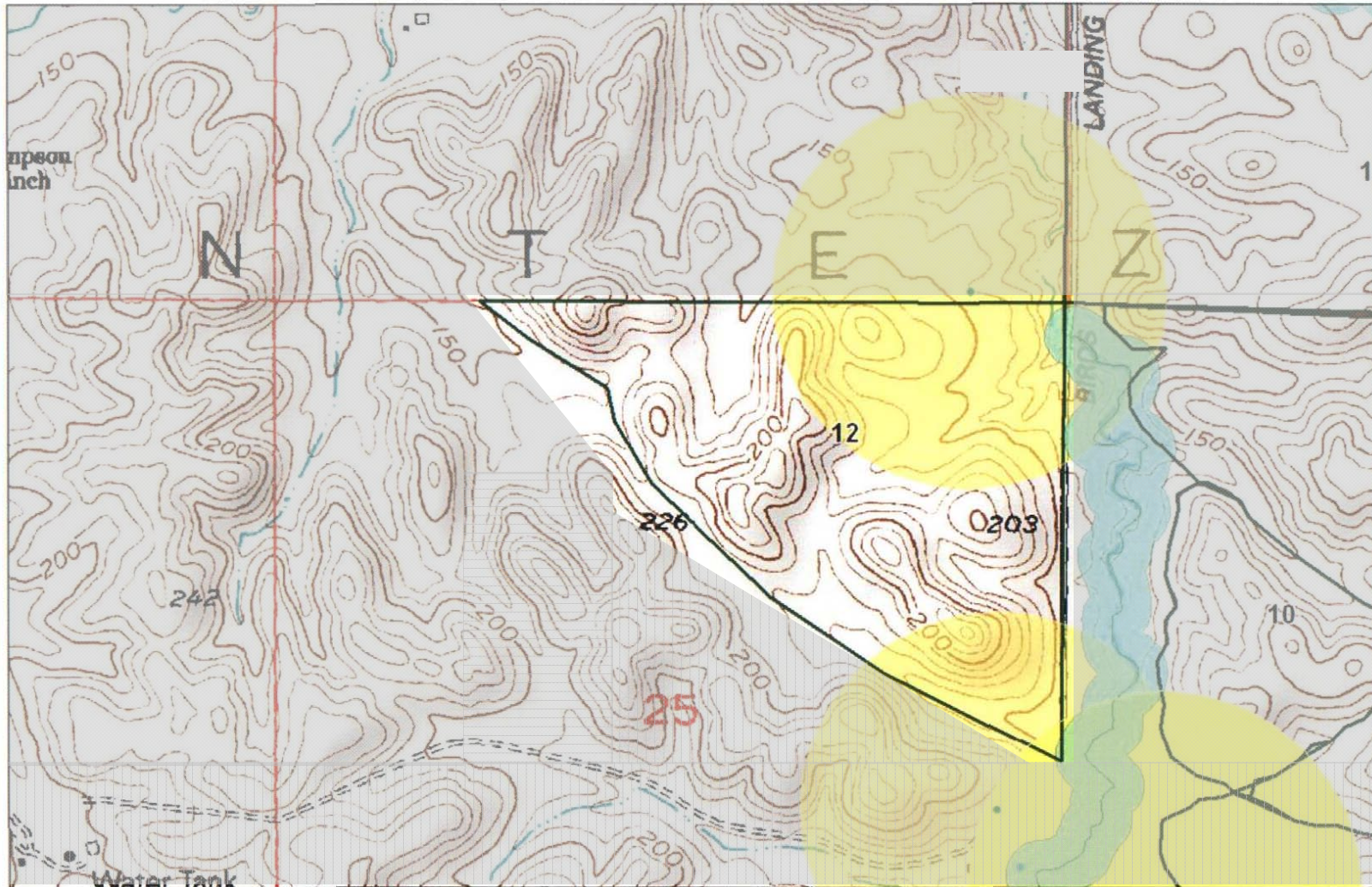
SO2-7,8,9,10,11



Drawing Reference:  
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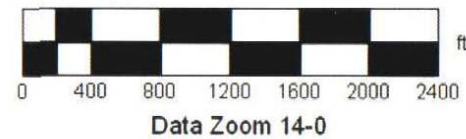
MAP OF BIOSOLID APPLICATION AND BUFFERS  
SYNAGRO - HAMILTON FARMS (SO-2) SITE  
SOLANO COUNTY





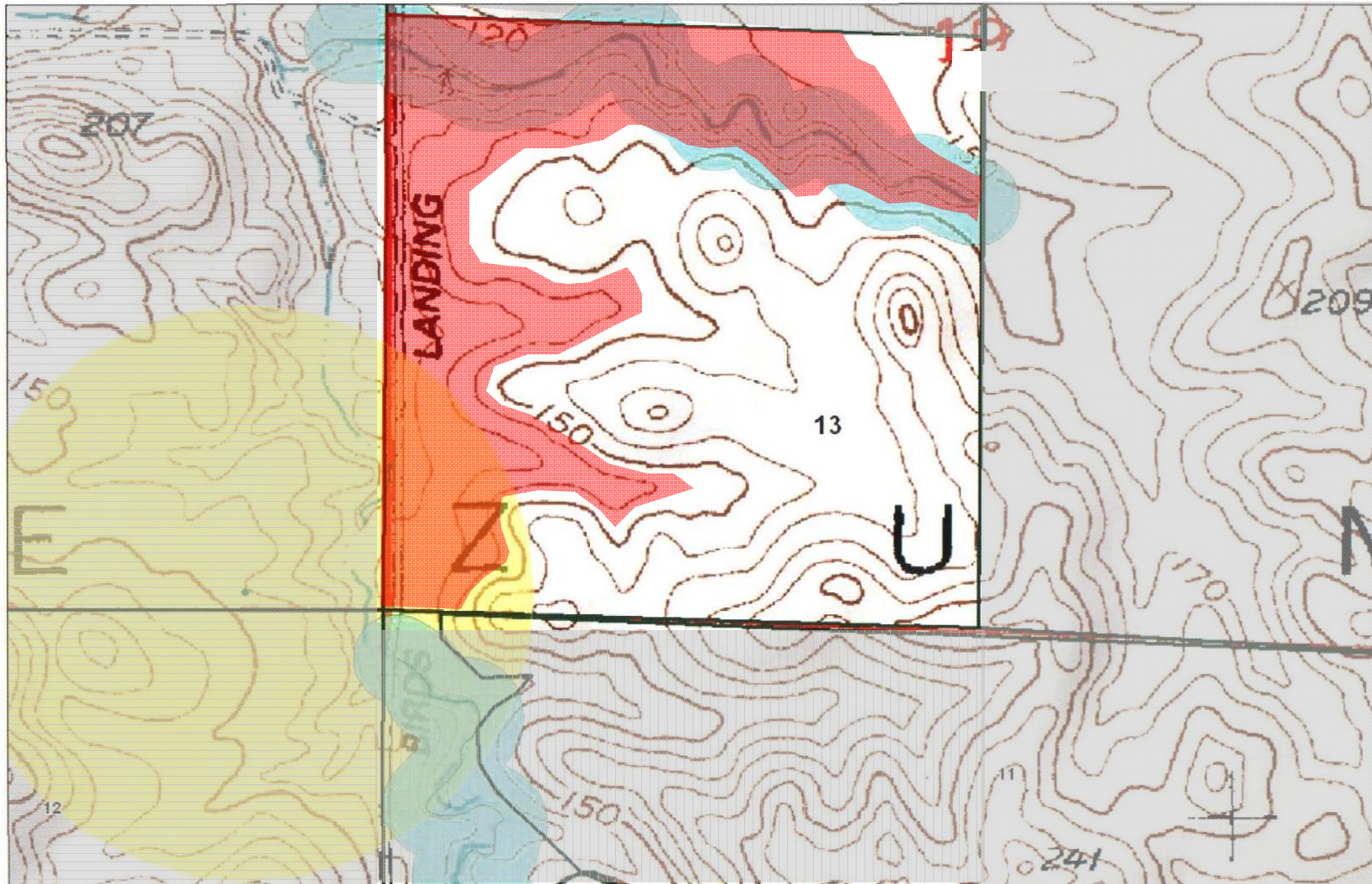
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SO2-12



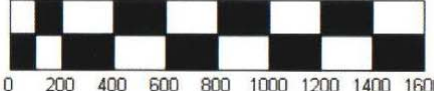
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**MAP OF BIOSOLID APPLICATION AND BUFFERS  
SYNAGRO - HAMILTON FARMS (SO-2) SITE  
SOLANO COUNTY**



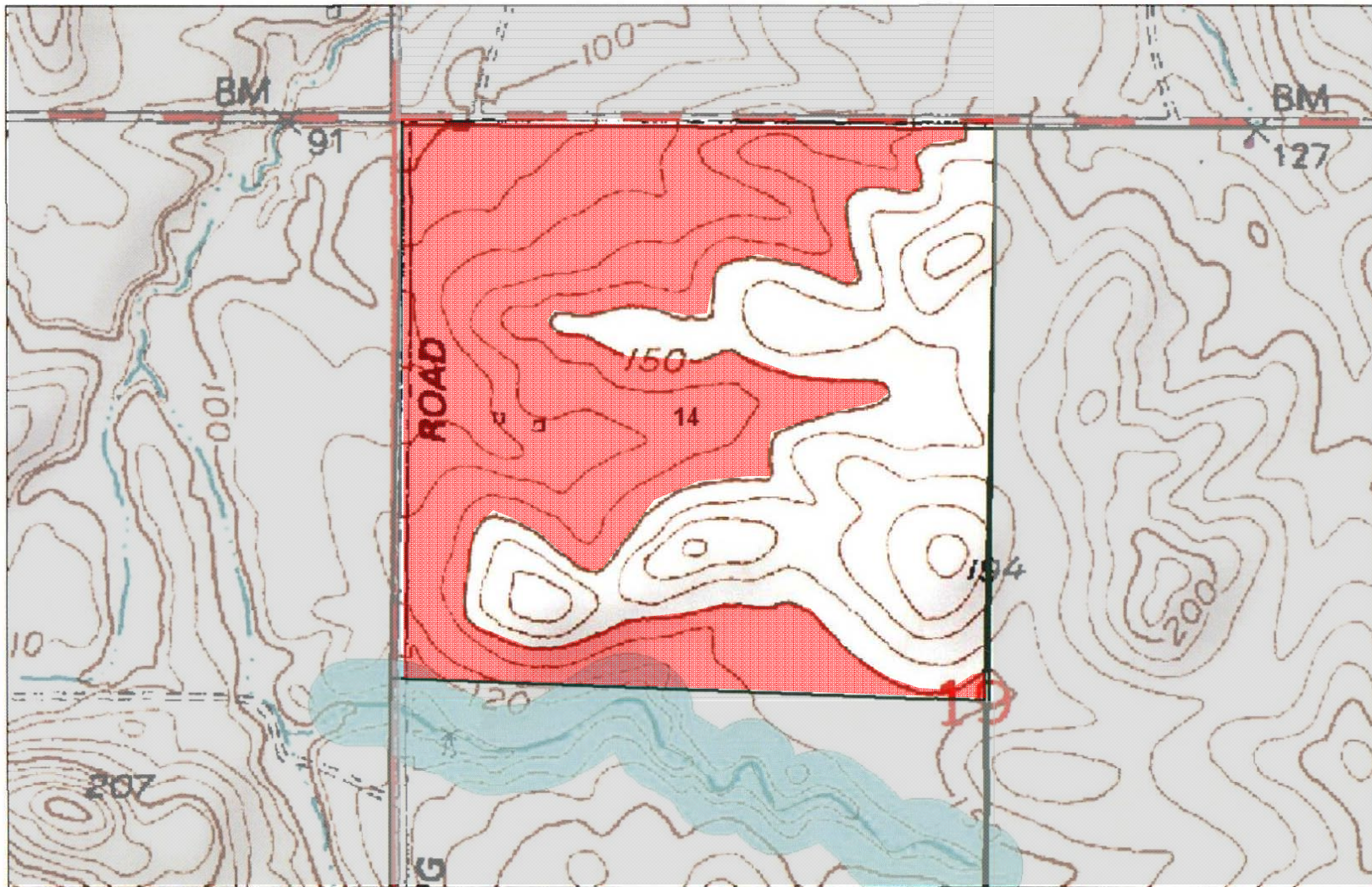
  
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SO2-13

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Data Zoom 14-5

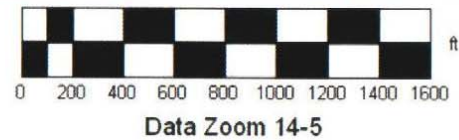
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**MAP OF BIOSOLID APPLICATION AND BUFFERS  
SYNAGRO - HAMILTON FARMS (SO-2) SITE  
SOLANO COUNTY**



★  
MN (14.5° E)

S02-14



Drawing Reference:  
DeLorme XMap 5.0 GIS Editor

MAP OF BIOSOLID APPLICATION AND BUFFERS  
SYNAGRO - HAMILTON FARMS (SO-2) SITE  
SOLANO COUNTY