CAFO FACILITY INSPECTION REPORT

OFFICE NO: PCA SYSTEM TASK NO:

INSPECTOR(S): Anthony D'Angelo (PG Environmental, LLC)

FACILITY INFORMATION

8365918001 WDID NUMBER	**Dickie Vander Meulen** OWNER NAME	**TIVA Dairy** FACILITY NAME
CAG018001 NPDES NUMBER	Ex. 6 Personal Privacy (PP) OWNER ADDRESS	FACILITY ADDRESS
R8-2007-0001 RWQCB ORDER NO.	**Chino, CA 91710** OWNER CITY AND STATE	**Chino, CA 91710** FACILITY CITY AND STATE
04/11/2013 SCHEDULED INSPECTION DATE	**Dickie Vander Meulen** OWNER CONTACT	**Dickie Vander Meulen** FACILITY CONTACT
04/11/2013 ACTUAL INSPECTION DATE	Ex. 6 Personal Privacy (PP)	
Santa Ana River RECEIVING WATER	Ex. 6 Personal Privacy (PP) FACILITY LATITUDE	FACILITY LONGITUDE

INSPECTION TYPE

- ☐ (A1) "A" type compliance -- (EPA Type S)
- ☒ (B1) "B" type compliance -- (EPA Type C)
- ☐ (02) Noncompliance follow-up - Correction of a previously identified violation
- ☐ (03) Enforcement follow-up - Enforcement action is being met
- ☐ (04) Complaint - Complaint
- ☐ (05) Pre-requirement
- ☐ (06) Miscellaneous

_____ (Type) NOTE: If this is an EPA inspection not mentioned above, please note type (e.g., biomonitoring, performance audit, diagnostic, etc.)

No	Was the inspection pre-announced?
Yes	Were potential violations noted during this inspection?
No	Was this a quality assurance-based inspection?
No	Were bioassay samples collected?
No	Were water quality samples collected?

INSPECTION SUMMARY

The overall Facility rating, on a 1 (Unreliable) to 5 (Very Reliable) scale, was determined to be: 2 = Marginal.

TIVA Dairy (hereinafter, Facility) was rated "Marginal" due to the following items:

- **Depth markers had not been installed in all basins at the Facility (refer to Photos 4 through 7, and 15)**
- **Weekly Storm Water Management Structure visual inspections were not conducted or documented at the Facility**
- **The Engineered Waste Management Plan (EWMP) was not retained onsite or available for review at the time of the inspection**
- **The EWMP was not fully implemented onsite at the Facility**
- **The EWMP was not reflective of current Facility conditions (refer to Photos 4 through 7, 10, 12, 13, and 14)**
- **Skeletal remains (i.e., livestock mortalities) were observed in field No. 3 in the north-central portion of the Facility (refer to Photos 18 through 22)**
- **Previously removed basin solids were observed stockpiled along the earthen berms of the basins located in the southern portion of the Facility (refer to Photos 6, 8, and 9)**

- **Accumulated solids and vegetation growth was observed in the Facility containment structures located in the southern and eastern portions of the Facility (refer to Photos 4 through 7, 10, 12, and 13)**

INSPECTOR DATA

INITIALS ___AJD____ SIGNATURE _____ DATE__04/11/2013__

CIWQS DATA ENTRY DATE: _____ REGIONAL BOARD FILE NUMBER: _____

FOR INTERNAL USE: REVIEWED BY: (1)_____ (2) _____ (3) _____

REPORT PREPARED BY: Anthony D'Angelo (PG Environmental, LLC) ON 04/26/2013

EPA SUGGESTED INSPECTION CHECKLIST

☒ Permit	☐ Flow Measurement	☐ Pretreatment	☒ Operations & Maintenance
☒ Records/Reports	☐ Laboratories	☐ Compliance Schedules	☐ Sludge Disposal
☒ Facility Site Review	☐ Eff/Receiving Waters	☐ Self- Monitoring	☐ Other

POTENTIAL VIOLATIONS

1. Depth markers were not installed in all basins at the Facility as required by Permit Attachment B - Monitoring and Reporting Program, Section I.B.1 (refer to Photos 4 through 7, and 15).

Description of Potential Violation: **Refer to Item No. 1 of the 'Inspection Observations' section of this report for additional details**

2. Weekly Storm Water Management Structure visual inspections were not conducted or documented at the Facility as required by Permit Attachment B - Monitoring and Reporting Program, Section I.B.

Description of Potential Violation: **Refer to Item No. 2 of the 'Annual Report Review' section of this report for additional details.**

3. The EWMP was not retained onsite or available for review at the time of the inspection as required by Provision VII.C.3.c of the Permit.

Description of Potential Violation: **Refer to Item No. 1 of the 'Engineered Waste Management Plan Review' section of this report for additional details.**

4. The EWMP was not reflective of current Facility conditions (i.e., containment structures) at the time of the inspection as required by Provisions VII.C.3.b of the Permit (refer to Photos 4 through 7, 10, 12, 13, and 14).

Description of Potential Violation: **Refer to Item No. 2 of the 'Engineered Waste Management Plan Review', section of this report for additional details.**

5. The EWMP had not been fully implemented onsite at the Facility at the time of the inspection as required by Provisions VII.C.3.a-b of the Permit (refer to Photos 4 and 5).

Description of Potential Violation: **Refer to Item No. 3 of the 'Engineered Waste Management Plan Review', section of this report for additional details.**

6. Previously removed basin solids were observed stockpiled on the earthen berms of the basins located in the southern portion of the Facility. Manure shall not be used to construct or improve containment structures per Provision VII.C.5.c of the Permit (refer to Photos 6, 8, and 9).

Description of Potential Violation: **Refer to Item No. 2 of the 'Facility Housekeeping, Wastewater, and Manure Information' section of this report for additional details.**

7. Accumulated solids and vegetation growth was observed in the Facility containment structures located in the southern and eastern portions of the Facility (refer to Photos 4 through 7, 10, 12, and 13). The Discharger must design and maintain all containment structures per the EWMP as required by Provision VII.C.3.a of the Permit.

Description of Potential Violation: **Refer to item Nos. 3 and 4 of the 'Facility Housekeeping, Wastewater, and Manure Information' section of this report for additional details.**

Date of Potential Violation: **N/A**

Date of Potential Violation Determination: **April 11, 2013**

INSPECTION OBSERVATIONS

On April 11, 2013, a Concentrated Animal Feeding Operation (CAFO) inspection was conducted for Santa Ana Water Board Order No. R8-2007-0001 - 'General Waste Discharge Requirements for Concentrated Animal Feeding Operations (Dairies and Related Facilities) within the Santa Ana Region', NPDES General Permit No. (CAG018001) at TIVA Dairy in Chino, California (refer to Photo 1). The inspector met with Mr. Dickie Vander Meulen (Partner, TIVA Dairy) at 10:35 AM on April 11, 2013. Mr. Vander Meulen declined to accompany the inspector during the Facility site visit; however, requested a closing conference at the conclusion of the inspection. The inspector held a closing conference with Mr. Vander Meulen at the conclusion of the inspection. During the closing conference, the inspector reviewed the preliminary inspection findings with the Facility representative.

The Facility is a 42-acre dairy farm with an animal population of approximately 1,100 milking cows and 300 dry cows at the time of the inspection. Process wastewater from the milking barn and wash pen is gravity-fed south to a standpipe and four (4) check valves located on the west side of the southern four (4) basins, adjacent to the commodity barn (refer to Photos 2 and 3). Process wastewater enters the west side of the basins and flows east (refer to Photos 4 through 7). The four (4) southern basins flow into a conveyance ditch along the east side of the Facility, which flows north into basin No. 3 located in the northeast corner of the Facility (refer to Photos 12 through 15). It should be noted that the four (4) basins in the southern portion of the Facility are not identified in the approved EWMP, but rather, are shown as field No. 1, basin No. 1, and basin No. 2 on the EWMP Site Plan (refer to Exhibit 1). Mr. Vander Meulen stated that the Facility had always had the basins located in the southern portion of the Facility, and was unaware of the discrepancies with the EWMP Site Plan. It appeared to the inspector that east/west earthen berms had been constructed within field No. 1, basin No. 1, and the southern half of basin No. 2 to create four (4) rectangular basins. Mr. Vander Meulen stated that all Facility containment structures were cleaned last year and had been cleaned "a couple times" during the eight (8) years the Facility has been in operation. At the time of the inspection, process wastewater was being routed into the north-central basin (refer to Photo 5). In addition, Mr. Vander Meulen stated that process wastewater from basin No. 3 can be pumped onto field No. 3 for land application in the event that the basin becomes too full. A pump was located adjacent to basin No. 3 in the northeast corner of the Facility (refer to Photo 17). A concrete emergency spillway was located in the southeast corner of the Facility (refer to Photos 11 and 12) Surface runoff from all corrals flows east into either field No. 3 or the northern half of basin No. 2 and continues to flow east into the conveyance ditch along the eastern side of the Facility.

Mr. Vander Meulen stated that the corrals are typically cleaned three (3) times per year and were last cleaned in September 2012. All manure is hauled offsite by Franco Trucking and Three Brothers Trucking and brought to Chino Valley Composting and other local croplands. Mr. Vander Meueln stated all records, including manure tracking manifests, are maintained; however, he was unable to produce any records at the time of the inspection, due to the absence of the Facility secretary. In addition, he stated that all mortalities are removed from the Facility immediately by Stiles Animal Removal, Inc.

FACILITY

CAFO Size: **Large** (at time of inspection)

Total Acres: **42.25**

Production Area Acres: **40.6**

CONTAINMENT STRUCTURES

Wastewater Lagoons: **5**

Evaporation Ponds: **0**

Catch Basins: **0**

Depth Markers: **0**

Other: **1 disposal field; 1 conveyance ditch**

ANIMALS ONSITE DURING INSPECTION

Milk Cows: **1,100** Dry Cows: **300** Heifers: **0**

Calves: **0** Other: **N/A**

INSPECTION OBSERVATIONS

1. The inspector observed, during the inspection, that depth markers had not been not installed in all ponds and impoundments at the Facility as required by the Permit. Specifically, depth markers were not installed in basin No. 3 located in the northeast corner of the Facility, or in the four (4) basins located in the southern portion of the Facility (refer to Photos 4 through 7, and 15). It should be noted that the four (4) basins located in the southern portion of the Facility were not identified in the EWMP, but rather, are shown as field No. 1, basin No. 1, and the southern half of basin No. 2 on the EWMP Site Plan (refer to Exhibit 1). Mr. Vander Meulen stated that the Facility had always had the basins located in the southern portion of the Facility, and was unaware of the discrepancies with the approved EWMP Site Plan. Permit Attachment B - Monitoring and Reporting Program, Section I.B.1 states that "a marker shall be placed within each pond or impoundment to indicate the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event."

ANNUAL REPORT REVIEW

ANNUAL REPORT

Monitoring Year: **N/A** Reviewed: **No** Signed & Certified: **Unknown**

Submittal Date: **N/A**

REPORTED ANIMAL POPULATION

Milk Cows: **N/A** Dry Cows: **N/A** Heifers: **N/A**

Calves: **N/A** Other: **N/A**

MANURE INFORMATION

Amount of manure spread on cropland at the Facility: **None**

Amount of manure hauled away from the Facility: **N/A**

Name and location of the composting operation, or, if the manure was hauled to cropland, the owner or tenant, and the destination address: **Chino Valley Compost and local croplands**

1. Annual Reports for the previous five (5) years were not available for review at the time of inspection. Mr. Vander Meulen stated all records are maintained onsite; however, he was unable to produce any records at the time of the inspection due to the absence of the Facility secretary. All monitoring data shall be maintained for at least five (5) years and shall be made available upon request as required by Permit Attachment B - Monitoring and Reporting Program, Section I.A.

2. Weekly Storm Water Management Structure visual inspections were not conducted and documented as required by the Permit. Specifically, Mr. Vander Meulen stated that he observes the Facility containment structures regularly; however, does not document the inspections. As a result, the inspector was unable to determine whether weekly inspections are conducted at the Facility. Process wastewater was observed in basin Nos. 3 located in the northeast portion of the Facility and the north-central basin located in the southern portion of the Facility at the time of the inspection. Permit Attachment B - Monitoring and Reporting Program, Section I.B states "all containment structures, including but not limited to, ponds, berms, and wastewater distribution lines, shall be inspected at least once a week during the entire year and at least once each 24-hour period during a storm event

in which rainfall exceeds 0.5 inches in 24 hours. The findings of these inspections shall be documented on the attached CAFO Weekly Storm Water Management Structure Inspections Log Sheet (Attachment 1[of the Permit])." The Discharger must conduct and document weekly inspections as required by Permit Attachment B - Monitoring and Reporting Program, Section I.B.

ENGINEERED WASTE MANAGEMENT PLAN (EWMP) REVIEW

Did the inspector review the EWMP in the RWQCB file?	**Yes**
Did the Facility have a copy of the EWMP on-site and available for review?	**No**
EWMP preparation date:	**September 2005**
EWMP prepared by:	**Nolte Associates, Inc.**
Santa Ana RWQCB EWMP acceptance date:	**October 14, 2005**
EWMP was certified by the Facility's engineer/consultant on:	**Unknown**

1. The EWMP was not retained onsite or available for review at the time of the inspection as required by the Permit. Mr. Vander Meulen stated all records (including the EWMP) are maintained onsite; however, he was unable to produce any records at the time of the inspection due to the absence of the Facility secretary. As a result, the inspector was unable to determine whether the EWMP is maintained onsite at the Facility. Provision VII.C.3.c of the Permit states that "a copy of the accepted Engineered Waste Management Plan (EWMP) for the facility shall be maintained on site and the person in charge of the dairy operation shall be familiar with its content."

2. The EWMP was not representative of current Facility conditions at the time of the inspection as required by the Permit. Specifically, the approved EWMP and Site Plan identifies that process wastewater is land applied via four (4) check valves onto field No. 1 located in the southwestern portion of the Facility, and flows south through basin Nos. 1 and 2. The inspector observed, during the inspection, that four (4) additional basins had been constructed in field No. 1, basin No. 1, and the southern half of basin No. 2 (refer to Exhibit 1). East/west earthen berms had been constructed creating four (4) additional rectangular basins (refer to Photos 4 through 7, and 10). All four basins flow into a conveyance ditch on the east side of the Facility that flows north into basin No. 3 located in the northeast corner of the Facility (refer to Photos 12, 13, and 14). The conveyance ditch was also not identified on the approved EWMP or Site Plan. Mr. Vander Meulen stated that the Facility had always had the basins located in the southern portion of the Facility, and was unaware of the discrepancies with the EWMP and Site Plan. As a result of the additional basins and process wastewater conveyance ditch, the Discharger was not fully implementing the approved EWMP. Provision VII.C.3.b of the Permit states that "the discharger shall develop and fully implement an Engineered Waste Management Plan (EWMP) acceptable to the Executive Officer." The Discharger shall fully implement the EWMP as required by Provision VII.C.3.b of the Permit. This finding was previously identified during an inspection conducted on January 19, 2012.

3. The EWMP was not fully implemented onsite and the containment structures had not been adequately maintained at the Facility as required by the Permit. Section V - "Operation and Maintenance" of the EWMP states that "lagoon solids should be removed every summer to ensure full capacity in the lagoons before the start of the next winter season." Mr. Vander Meulen stated that the Facility containment structures were last cleaned in 2012; however, had only been cleaned "a couple of times" in the eight (8) years the dairy had been in operation. Accumulated solids were observed in three (3) of the southern basins (refer to Photos 4 and 5). As a result, the Discharger was not fully implementing the EWMP onsite at the Facility. Provision VII.C.3.a of the Permit states that "the discharger shall design, construct and maintain containment structures to retain all wastewater within the facility, including all process wastewater and all precipitation on, and drainage through, manured areas resulting from rainfall up to and including a 25-year, 24-hour rainfall event." Provision VII.C.3.b of the Permit states that "the discharger shall develop and fully implement an Engineered Waste Management Plan (EWMP) acceptable to the Executive Officer." The Discharger shall design and maintain all containment structures and fully implement the EWMP as required by Provision VII.C.3.b of the Permit.

NUTRIENT MANAGEMENT PLAN (NMP) REVIEW (IF APPLICABLE)

Did the Facility have a copy of the NMP on-site and available for review?	**N/A**
Date NMP was prepared:	**N/A**
NMP prepared by:	**N/A**
Santa Ana RWQCB NMP acceptance date:	**N/A**

1. The Discharger does not apply manure, litter, or process wastewater to croplands under their ownership or operational control; therefore, the Discharger is not required to develop, implement, and retain onsite a Nutrient Management Plan as stated in Provision VII.C.3.d of the Permit.

FACILITY HOUSEKEEPING, WASTEWATER, AND MANURE INFORMATION

Typical Depth of Manure in Corrals (in inches):	**1-4**
Estimated Freeboard in Fullest Lagoon (in feet):	**3**
Date of Last Lagoon Solids Removal, per Facility Representative:	**2012**
Disposal Location for Lagoon Solids:	**Chino Valley Compost and local crop lands**

REVIEW OF FACILITY HOUSEKEEPING

1. The inspector observed, during the inspection, skeletal remains (i.e., livestock mortalities) on the north side of field No. 3, northwest of basin No. 3 (refer to Photos 18 through 22). The skeletal remains appeared to be contained onsite; however, storm water runoff from field No. 3 most likely would flow southeast and enter basin No. 3. Mr. Vander Meulen stated that all skeletal remains are the result of coyotes killing new born calves and dragging them east into field No. 3. Discharge Prohibition IV.F of the Permit states "the disposal of any mortality in any process wastewater system is prohibited. Mortalities shall be handled in such a way as to prevent the discharge of pollutants to waters of the state."

CONDITION OF BERMS AND CONTAINMENT STRUCTURES

2. The inspector observed, during the inspection, that previously removed basin solids had been stockpiled on the earthen berms of the basins located in the southern portion of the Facility (refer to Photos 6, 8, and 9). Mr. Vander Meulen stated that the southern basins were last cleaned of accumulated solids in 2012. Provision VII.C.5.c of the Permit states "no containment structures shall be constructed of manure, and manure shall not be used to improve or raise existing containment structures."

3. The inspector observed, during the inspection, accumulated solids in the basins located in the southern portion of the Facility (refer to Photos 4 and 5). Mr. Vander Meulen stated that all Facility containment structures were last cleaned in 2012, and had been cleaned "a couple times" in the eight (8) years the Facility has been in operation. In addition, the inspector observed pond solids stockpiled on the earthen berms between the basins (refer to Photos 6, 8, and 9). As a result, the overall capacity of the containment structures at the Facility may be diminished. Provision VII.C.3.a of the Permit states that "the discharger shall design, construct and maintain containment structures to retain all wastewater within the facility, including all process wastewater and all precipitation on, and drainage through, manured areas resulting from rainfall up to and including a 25-year, 24-hour rainfall event." The Discharger must design and maintain all containment structures per the EWMP as required by Provisions VII.C.3.a of the Permit.

4. The inspector observed, during the inspection, that vegetation growth potentially affecting the containment structure capacity was observed in all Facility containment structures (refer to Photos 6, 7, 10, 11, and 12). As a result, the overall capacity of the containment structures at the Facility may be diminished. Provision VII.C.3.a of the Permit states that "the discharger shall design, construct and maintain containment structures to retain all wastewater within the facility, including all process wastewater and all precipitation on, and drainage through, manured areas resulting from rainfall up to and including a 25-year, 24-hour rainfall event." The Discharger must design and maintain all containment structures per the EWMP as required by Provisions VII.C.3.a of the Permit.

ITEMS FOR FOLLOW UP ON FUTURE INSPECTIONS

1. Verify whether depth markers have been installed in all Facility containment structures

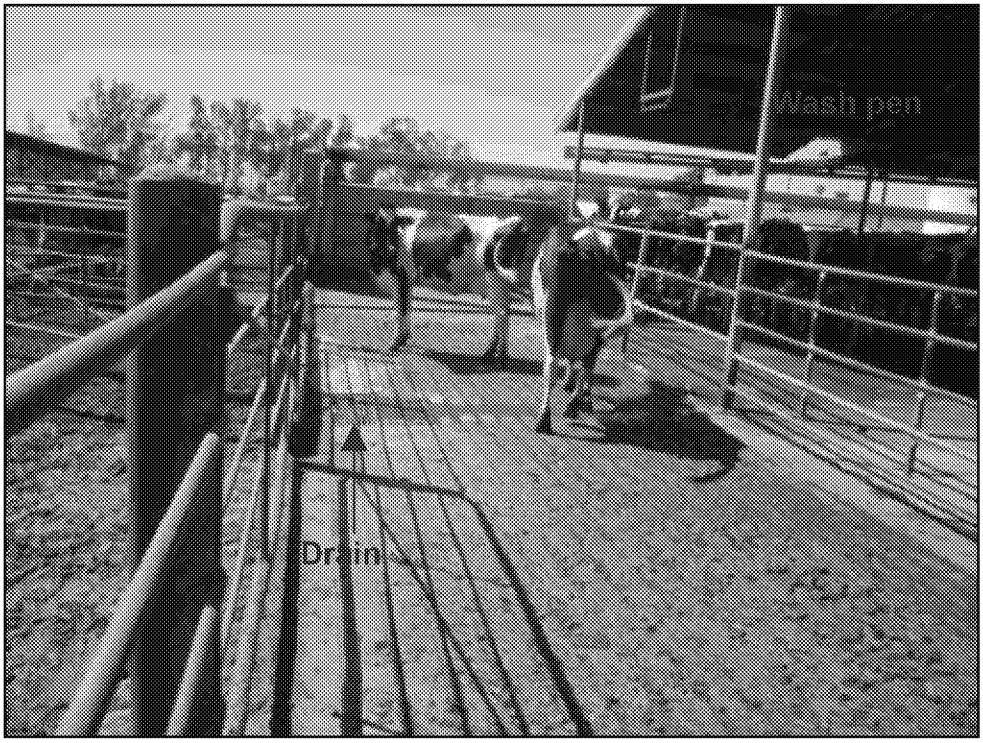
2. Verify if Annual Reports and Weekly Storm Water Management Structure visual inspections have been conducted, documented, and retained for the previous five (5) years

3. Verify whether the EWMP is retained onsite

4. Verify whether the EWMP is fully implemented onsite and reflective of current Facility conditions

5. Verify whether containment structures are adequately maintained (e.g., accumulated solids and vegetation growth)

Photograph 1. TIVA Dairy Facility sign.



Photograph 2. View facing south of the wash pen drain on the east side of the milking barn. This drain conveys process wastewater to a standpipe located in the southwest portion of the Facility.

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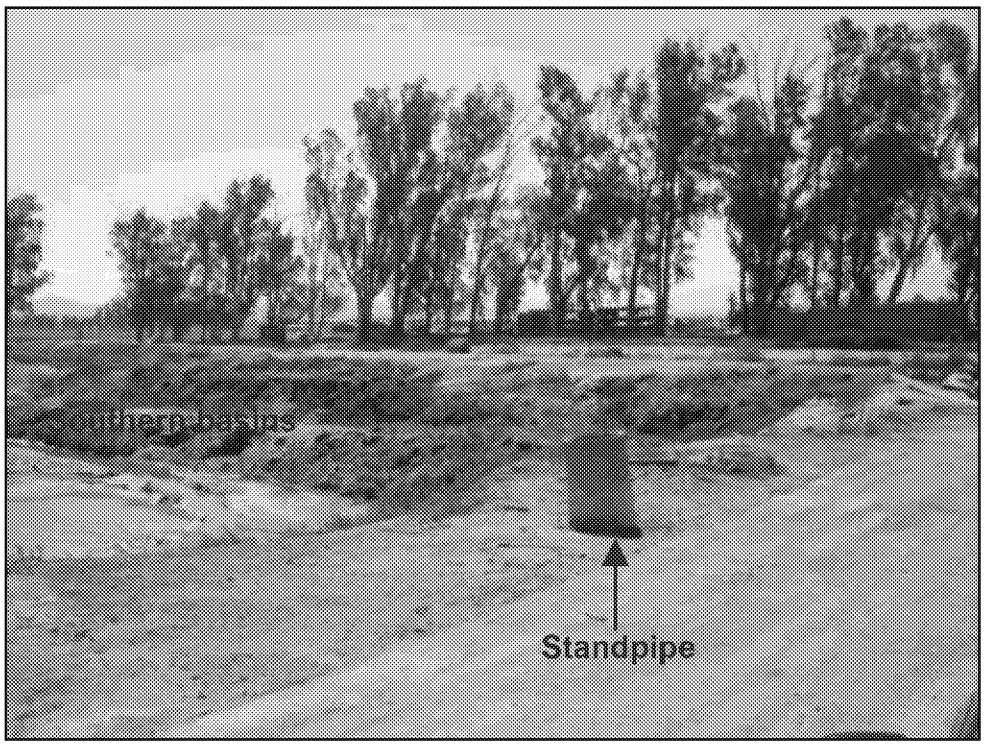
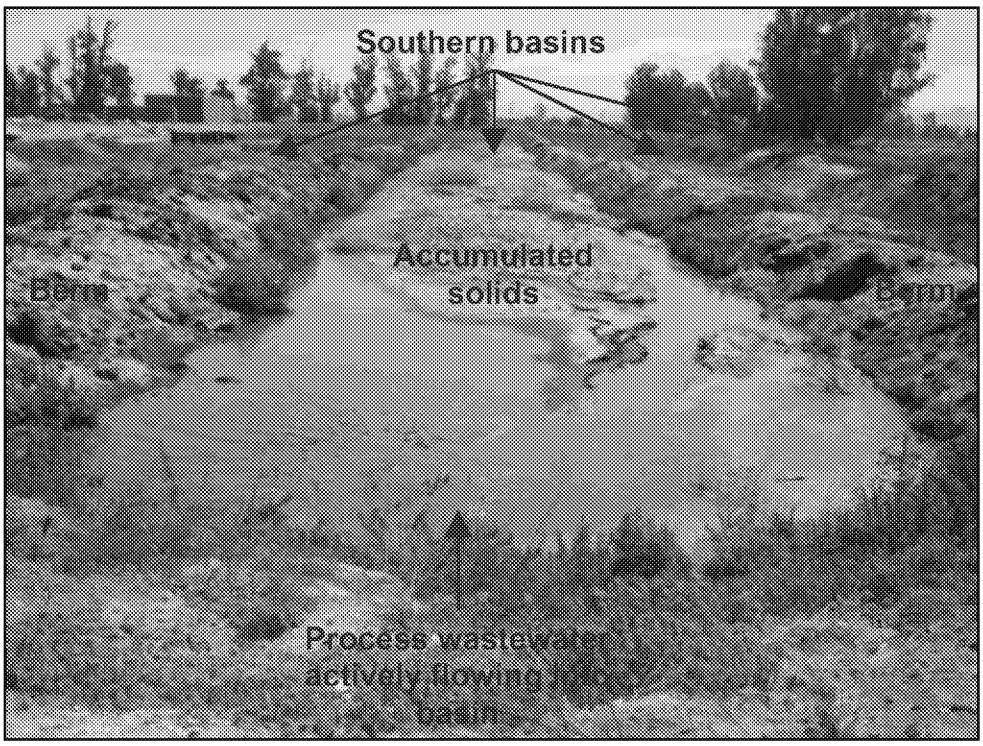
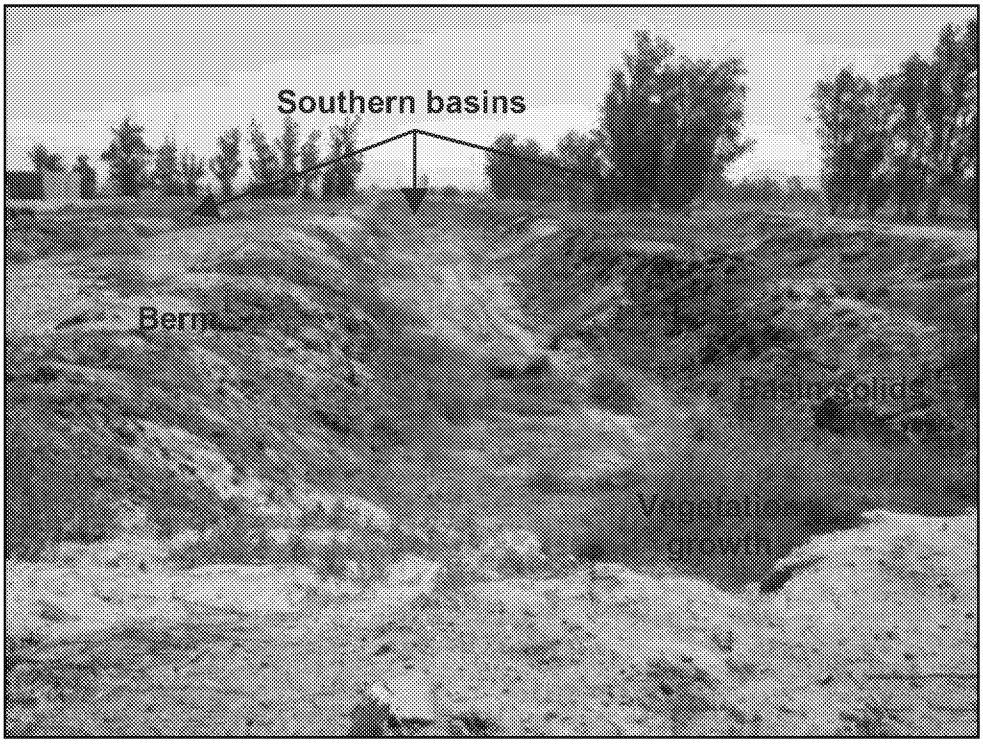


Photograph 3. View facing southeast of the process wastewater standpipe located on the west side of the southern basins. The standpipe conveys process wastewater to four (4) check valves on the west side of the southern basins.

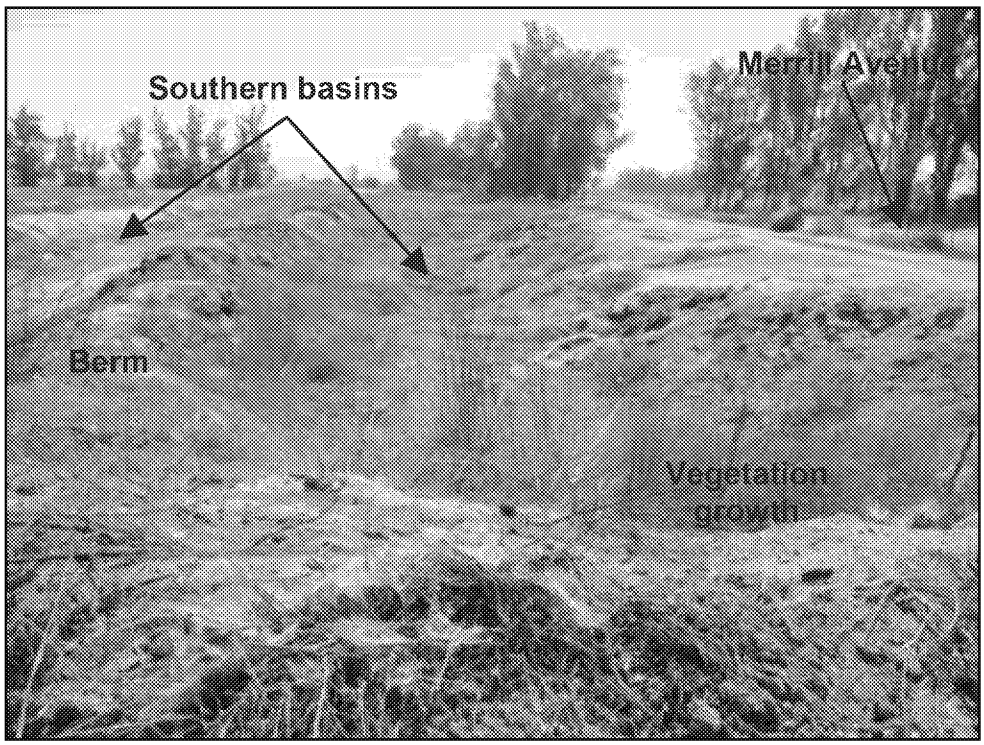
Photograph 4. View facing east of the southern basins constructed in field No. 1, basin No. 1, and basin No. 2 (refer to Exhibit 1). Note the accumulated solids in the basin, and that the basins did not contain depth markers.



Photograph 5. View facing east of the southern basins. Process wastewater was actively flowing into the northern-middle basin. Note the accumulated solids in the basin. Also note the basins did not contain depth markers.



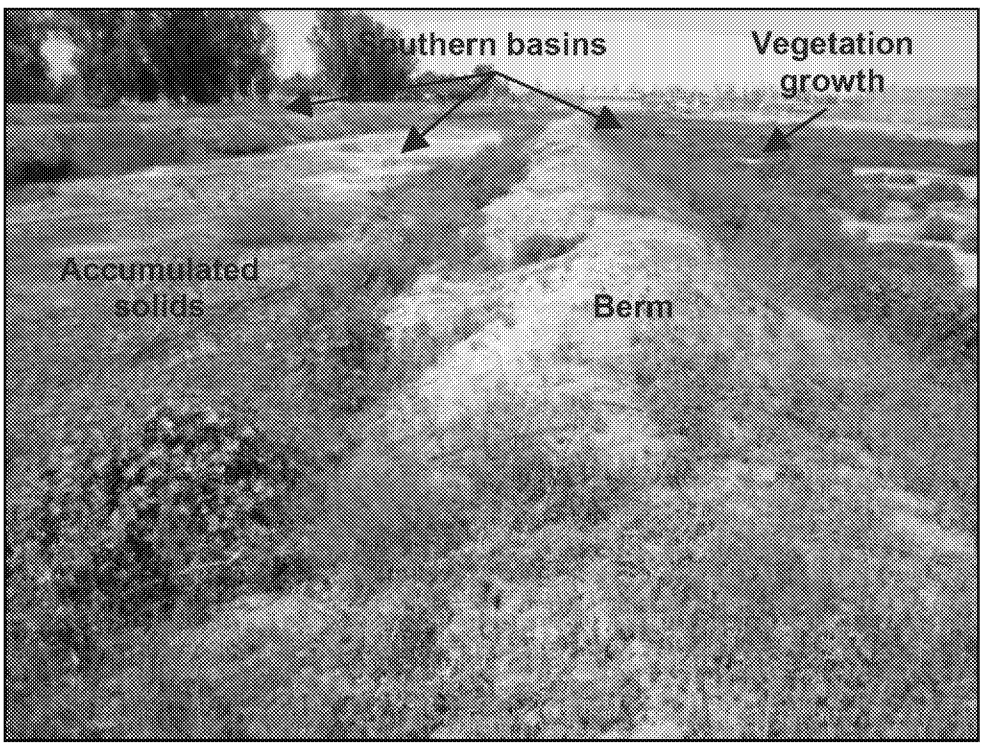
Photograph 6. View facing east of the southern basins. Note previously removed basin solids were observed on the berms between the basins. Also note the basins did not contain depth markers and was observed with vegetation growth.



Photograph 7. View facing east of the southern-most southern basin. Note the basins did not contain depth markers and was observed with vegetation growth.

Photograph 8. View facing northwest of basin solids stockpiled on the earthen berm of the southern-most southern basin.

Photograph 9. View facing north of previously removed basin solids stockpiled on the earthen berm of the southern-most southern basin.



Photograph 10. View facing west of vegetation growth and accumulated solids on the east side of the southern basins.

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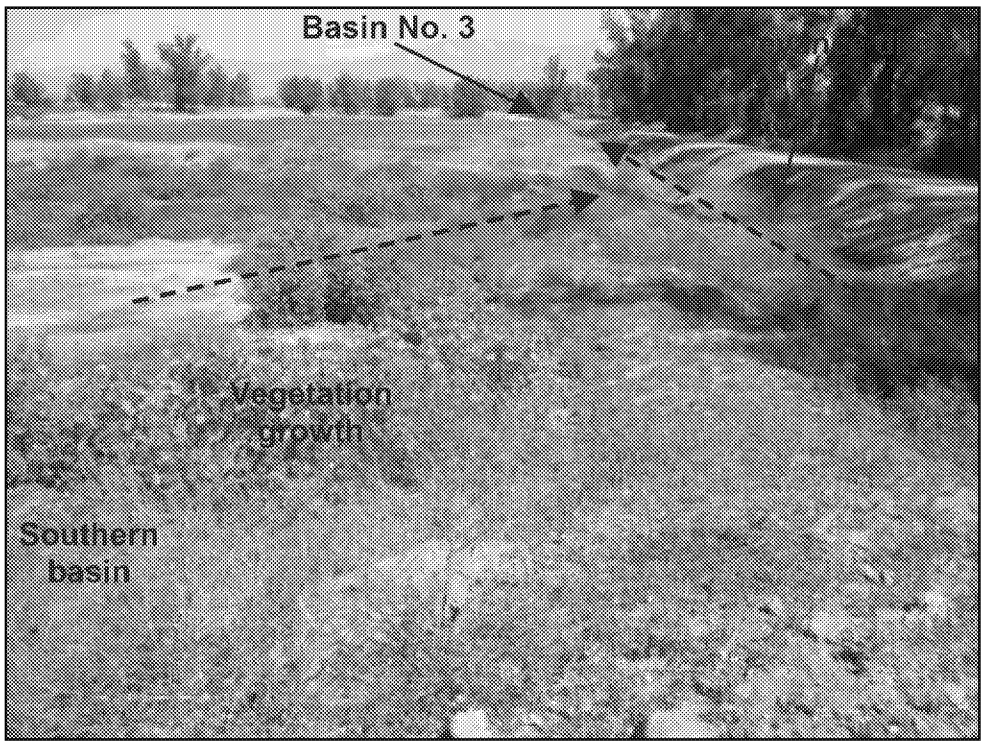
Photograph 11. View facing east of the spillway located in the southeast corner of the Facility, adjacent to the east side of the southern basins.

Photograph 12. View facing south of the process wastewater flow pathway from a southern basin into the conveyance ditch along the east side of the Facility. Note the vegetation growth.



Photograph 13. View facing north of the process wastewater flow pathway from a southern basin into the conveyance ditch along the east side of the Facility. Note the vegetation growth.

Photograph 14. View facing south of the conveyance ditch along the east side of the Facility. The conveyance ditch conveys process wastewater from the southern basins to basin No. 3.

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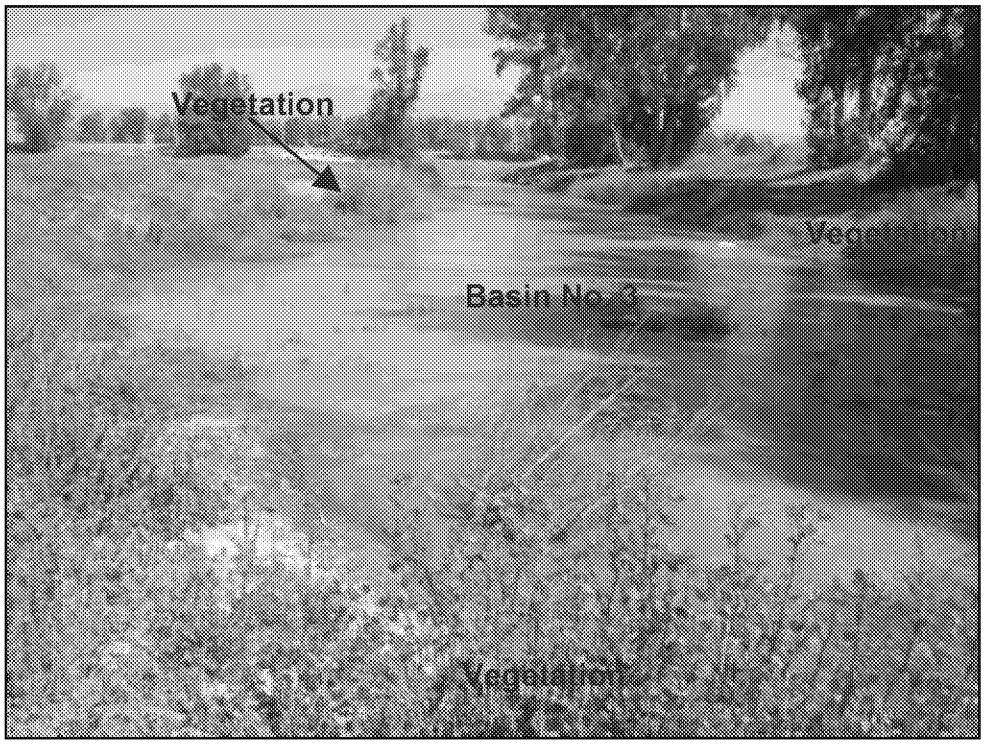
Photograph 15. View facing south of basin No. 3 located in the northeast corner of the Facility. Note vegetation growth was observed on the basin embankments. Also note the basin did not contain a depth marker.



Photograph 16. View facing south of basin No. 3 located in the northeast corner of the Facility. Note vegetation growth was observed on the basin embankments.

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Photograph 17. View facing south of a pump located at basin No. 3. Note the pump is used to transfer process wastewater from the basin onto field No. 3 for land application/disposal.

Photograph 18. View facing west of skeletal remains and mortality debris on the north side of field No. 3, east of the northern corrals.

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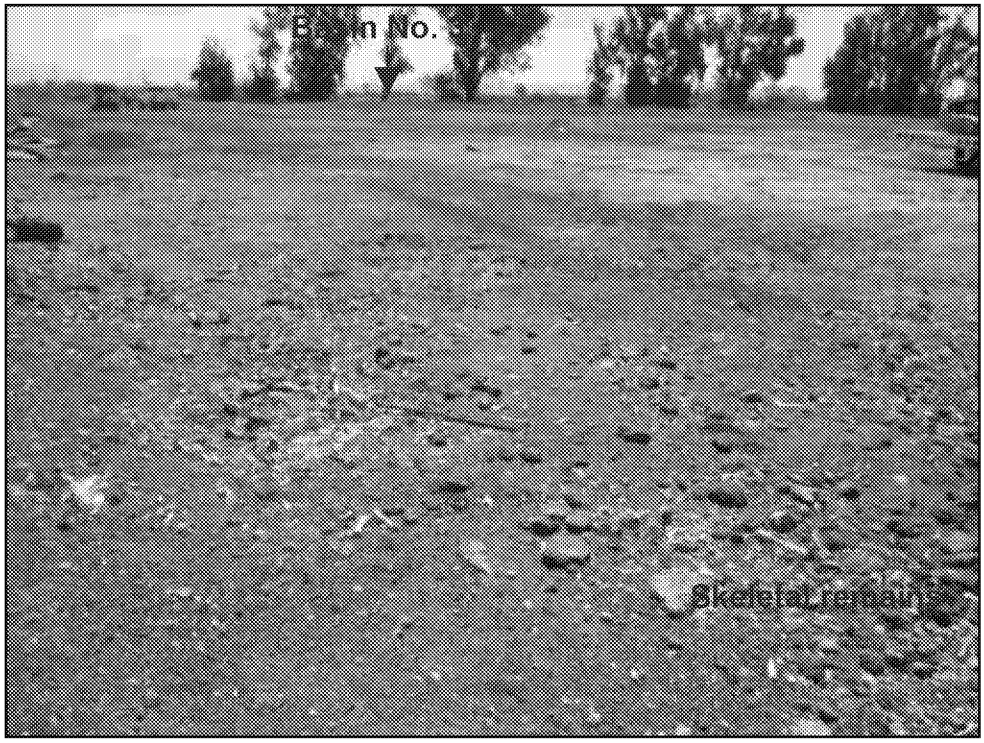
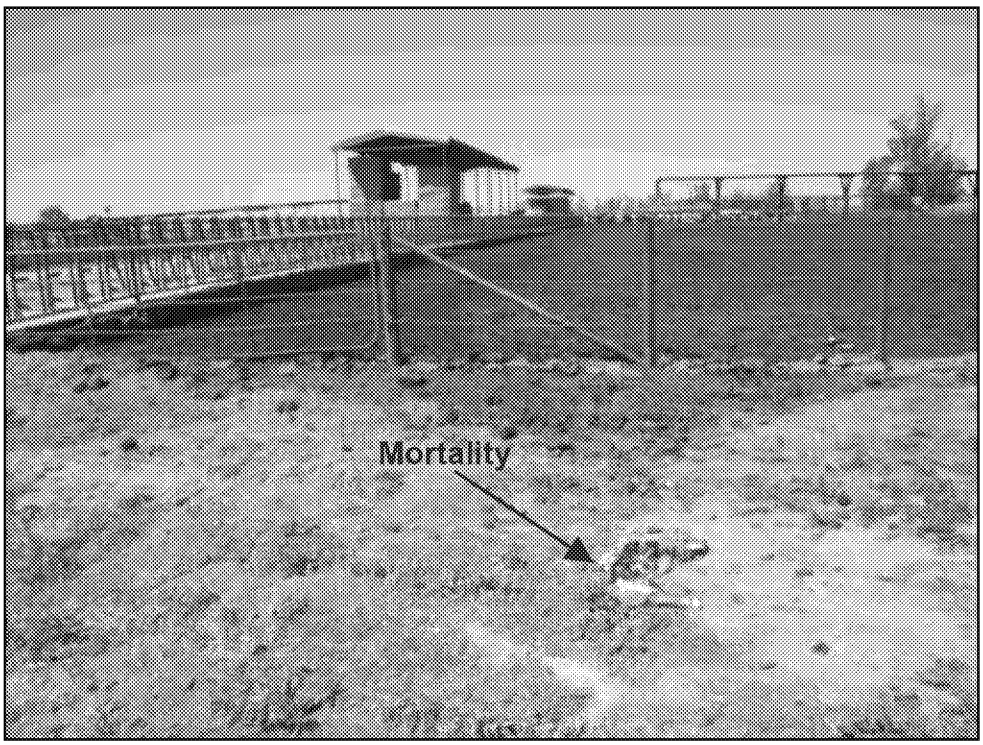
Photograph 19. Close-up view of the skeletal remains shown in Photograph 19.



Photograph 20. View facing east skeletal remains and mortality debris on the north side of field No. 3, shown in Photographs 18 and 19, west of basin No. 3.



Photograph 21. View facing west of a mortality observed on the east side of the northern corrals.

Photograph 22. View facing northwest of mortalities observed on the east side of the northern corrals.

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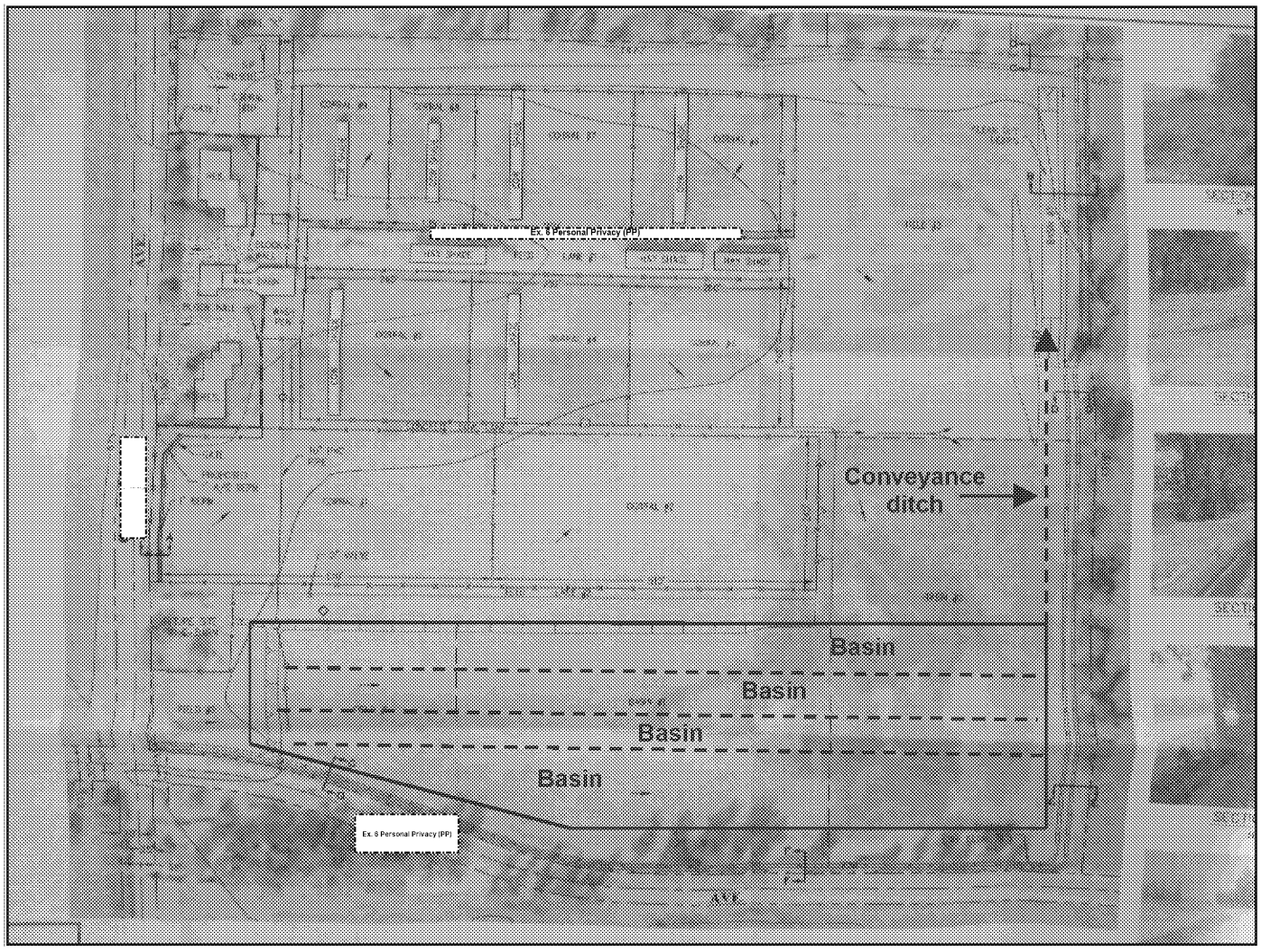

Exhibit 1. TIVA Dairy approved EWMP Site Plan. Note four (4) east/west basins were constructed on the south side of the Facility in field No. 1, basin No. 1, and the southern half of basin No. 2. It should be noted that these additional basins were not in accordance with the approved EWMP and Site Plan.