

California Central Valley Dairy Waste and Nutrient Management

Release Notes

Latest revision to the California Central Valley Dairy Waste and Nutrient Management software effective date is 05/09/2013.

Latest Revision (05/09/2013) includes:

Annual Report:

1. The “Irrigation Water Sources” and “Irrigation Water Samples” pages have been changed to “Fresh Water Sources” and “Fresh Water Samples”, incorporating sampling and reporting of domestic and agricultural supply wells under Groundwater Monitoring requirements. Also impacts other “irrigation water” language throughout the application.
2. Total dissolved solids (TDS) was added as a fresh water analyte. TDS will be used in place of Electrical Conductivity (EC), when available, to compute salt content of fresh water land applications.
3. TDS was added as a process wastewater analyte. TDS is required for all process wastewater imports, exports, and land application sources for events on or after 2/23/2011 (including already entered import, export, and land application events). TDS is also optionally available for events before 2/23/2011. TDS will be used in place of EC, when available, to compute salt content of process wastewater imports, exports, and land applications.
4. The application Conversion Utility has a new tool to convert between TDS and EC.
5. Total fixed solids as percent ash (TFS) was added as a manure analyte. TFS is required for all manure imports, exports, and land application sources for events on or after 2/23/2011 (including already entered import, export, and land application events). TFS is also optionally available for events before 2/23/2011. TFS will be used in place of Total Salt, when available, to compute salt content of manure imports, exports, and land applications.
6. TFS was added as a plant tissue analyte. TFS is required for all harvests on or after 2/23/2011 (including already entered harvest events). TFS is also optionally available for events before 2/23/2011. TFS will be used in place of Total Salt, when available, to compute salt content of harvest yield.
7. The manure analyte “sulfate” was changed to “sulfur”. Existing manure sulfate concentration data has been retained as sulfur concentration.
8. Carbonate and bicarbonate were removed as manure analytes.

9. EC was added as a soil analyte. The soil slice calculator available when adding an existing soil nutrient content credit to a land application event will now calculate total salt from EC. Salt is still measured in lbs/acre for soil content credits.
10. Soluble phosphorus was added as a soil analyte. Soluble phosphorus is required for existing soil nutrient content credits for all credits on or after 2/23/2011. Soluble phosphorus is also optionally available for events before 2/23/2011. Soluble phosphorus will be used in place of Total Phosphorus, when available, to compute the phosphorus content of existing soil nutrient content credits.
11. Un-ionized ammonia-nitrogen (NH₃-N) was added as a process wastewater analyte. NH₃-N is required for all process wastewater exports and land application sources for events on or after 2/23/2011 (including already entered export and land application events). NH₃-N is also optionally available for events before 2/23/2011.
12. NH₃-N and nitrate-nitrogen (NO₃⁻-N) were added as fresh water analytes. If total nitrogen is not provided for a fresh water land application, then the sum of NH₃-N and NO₃⁻-N will be used to compute the nitrogen content of the land application.
13. General minerals were added as fresh water analytes for analyses only (not for imports, exports, or land applications). General minerals must be reported for domestic and agricultural supply wells under Groundwater Reporting requirements.
14. pH was added as a process wastewater analyte for analyses only (not for imports, exports or land applications).
15. Subsurface (tile) drainage sources and analyses may now be entered as part of Groundwater Reporting requirements. Sources and analyses are tabulated in the Annual Report.
16. Manure exports and land applications on or after 2/23/2011 may no longer be recorded in cubic yard volumes (including already entered export and land application events). Density was also removed where no longer needed.
17. Harvest yields for harvests on or after 2/23/2011 may no longer be recorded in cubic yard volumes (including already entered harvest events). Density was also removed where no longer needed.
18. Land application events now record precipitation or standing water in place of "weather conditions". Existing weather condition answers of "overcast", "cloudy", or "windy" were translated to "no precipitation".
19. The "NMP Statement" page changed to "NMP and Export Agreements" and now includes a statement on new or revised third party written agreements to receive manure or process wastewater. All Annual Reports with a reporting period end date on or after 2/23/2011 are required to answer this question (including already entered Annual Reports).
20. The LIST OF LAND APPLICATION AREAS report table now includes acre/harvest count totals for areas that were used for, and areas that were not used for land application of manure and process wastewater.

21. NUTRIENT BUDGET report tables no longer include totals for Plant tissue (which does not apply). Totals for anticipated and actual harvest are still present.
22. Some vertical whitespace has been condensed to reduce the page count of Annual Reports.
23. Various other minor bug fixes and tweaks.

Annual Dairy Facility Assessment:

24. Annual Dairy Facility Assessment functionality has been removed.

Nutrient Management Plan:

25. NMP Sampling and Analysis Plan templates have been updated to reflect MRP and approved sampling procedure changes.

Previous Revision (04/05/13) included:

1. Minor bug fix in the Annual Report's "List of Land Application Areas" totals where the totals were duplicating area acres on fields that spanned multiple parcels.

Previous Revision (01/17/13) included:

1. Minor bug fixes including improved checks for negative values, and cases where the system might suggest a positive value was needed even though a zero value was accepted.

Previous Revision (12/19/12) included:

1. Annual Report: Inputs for manure, process wastewater, and plant tissue that were in % are now in mg/L or mg/kg. Note that existing data in % were converted to equivalent mg/L or mg/kg values.
2. Annual Report: The Owners and Operators page has an import tool to copy records from another Annual Report.
3. Annual Report: The Fields and Parcels page has an import tool to copy fields and parcels from another Annual Report.
4. Annual Report: The Discharges page now has "Storm water" as an additional source for "Land application area to surface water" discharges.
5. Nutrient Management Plan and Annual Report (PDF output): Fixed errant rounding of values, most visible when values with three or more decimals were rounded to two decimals though the report displayed more than two decimals.
6. Annual Report: Fixed an error in calculating total nitrogen from a process wastewater analysis; it was using Kjeldahl-N + Ammonium N instead of Kjeldahl-N + Nitrate-N. For

example, this could be observed when selecting an analysis during entry of a nutrient import.

7. Waste Management Plan (PDF output): Fixed rounding of minimum operating level in Operation and Maintenance Plan to one decimal.
8. Refreshed visual style.
9. Various other minor bug fixes and tweaks.

Previous Revision (08/23/11) included:

1. Waste Management Plan: Waste Management Plan O & M Plan – Ponds, Current operation and maintenance ponds panel display reconfigured.
2. Waste Management Plan (PDF output): Waste Management Plan O & M Plan - O & M Pond solids/sludge removal description text boxes no longer truncate.
3. Waste Management Plan: Waste Management Plan O & M Plan – Chemical Management, Operation and Maintenance Plan - Add a Chemical panel Company Telephone Number validation error fixed.

Previous Revision (06/10/11) included:

1. Annual Report (PDF output): Summary of Nutrient Applications, Potential Removal, and Balance table column header units now displayed as “lbs” to match calculated values.
2. Annual Dairy Facility Assessment (PDF output): “preliminary dairy facility assessment” text corrected.
3. Waste Management Plan: Charts on Retention Ponds and Settling Basins and Rainfall and Pond Storage Summary pages will now print when using Microsoft Internet Explorer.
4. Preliminary Dairy Facility Assessment: Annual Nutrient Import & Export Estimates – Liquid manure exports now accommodate larger values for Total Nitrogen and Total Phosphorus.

Previous Revision (03/16/11) included:

1. Annual Report, Herd Info page now requires “Average” count entry for all maturity stages to estimate nutrient excretion.
2. Nutrient Management Plan, Application Area Crops page now requires “Anticipated Number of Harvests” entry to improve the estimation of atmospheric nitrogen deposition apportioning and identification of multi-cut crops. One harvest is assumed for all existing crops.

3. Nutrient Management Plan, Application Area Crops page entry field text changes from “Anticipated harvest yield” to “Total anticipated yield for all harvests” and “Anticipated harvest content” to “Total anticipated content for all harvests.”
4. Nutrient Management Plan, Application Area Crops page now allows edit of existing data.

Previous Revision (02/16/11) included:

1. Annual Report and NMP now have the flexibility to freely associate fields and parcels; fields can be associated with multiple parcels, and vice versa.
2. Dairy facility address must be confirmed to generate a valid Annual Report.
3. The Annual Report now has a notes page to describe special considerations or events during the reporting period pertinent to review of the report.

Previous Revision (12/08/10) included:

1. Township, Range, and Section are no longer required for WMP facility coordinates for areas not included in a Public Land Survey.

Previous Revision (04/30/10) included:

1. Deployment of Annual Nutrient Application, Tracking and Reporting (ANATR) module.
2. Bug fixes for ANATR beta version.
3. Added a conversion utility to “Links”, under “Tools”.
4. Excel based “2008 Annual Report” spreadsheet has been moved to the “Links” section of this web site at the request of the Central Valley Regional Water Quality Control Board (CVRWQCB).
5. Waste Management Plan Herd and Milking Page, Bulk Tank and Pipeline, Pipeline wash computations now estimate pipeline wash water volume based on number of milkings per day (not milk tank cleanings per day). Waste Management Computations Documentation changed to reflect this modification.
6. Waste Management Plan Retention Ponds and Settling Basins page now allows dead storage loss entries at one-tenth foot intervals.

Previous Revision (09/30/09) included:

1. Waste Management Plan computations for evaporation and elevation markers have been rearranged to consider the twenty-five year runoff values in the appropriate order.

2. Waste Management Plan Rainfall and Pond Storage Summary screen has been updated to display values on charts as gallons.
3. Waste Management Plan report now displays the correct value in the "Storage Volume Assessment (Normal Precipitation with 1.5 Factor)" chart for "Total Required Capacity".
4. Waste Management Plan schedule for July, 2009, has been updated to July, 2010 on all WMP screens.
5. Preliminary Dairy Facility Assessment report can now be viewed and printed as an Annual Dairy Facility Assessment by clicking on the "ADFA Report" button on the PDFFA Final screen.
6. All reports now display facility information, owners and operators, and parcels at the start of each report for review.

Previous Revision (07/10/08) included:

1. Waste Management Plan computations of manure solids removed by separation no longer include moisture when estimating manure solids mass or volumes diverted from process wastewater ponds. Previously, negative manure solids removal values could have been displayed in some cases. Computational changes will not adversely affect storage capacity estimates. See Waste Management Plan Computations Documentation for details (Solids removal section).
2. Preliminary Dairy Facility Assessment (PDFFA) Report output, Figure 2 (chart) has been modified. PDFFA Figure 2 now displays the combined value of imported nitrogen and atmospheric nitrogen deposition (AND) in the second vertical bar labeled "Nitrogen Imported (includes AND)". No computational changes to the PDFFA.

Previous Revision (06/19/08) included:

1. Waste Management Plan storage capacity screens and reports no longer include evaporation loss credits for "Existing Capacity" estimates. Evaporation loss now applies to "Required Capacity" estimates only. Values displayed on both the users "Rainfall & Pond Storage Summary" page and report have been modified to reflect this basis. Changes have no effect on "Existing capacity meets estimated storage needs" results.
2. Waste Management Plan pond storage chart on the "Rainfall & Pond Storage Summary" page now displays 25 year/24 hour storm totals for factored rainfall consistent with the un-factored rainfall pond storage chart.
3. Waste Management Plan "Solids Management" page now allows zero solids removal efficiency and zero solid manure generated by the herd used for bedding purposes.

Previous Revision (06/13/08) included:

1. Nutrient Management Plan and Waste Management Plan screens now have “Cancel” buttons to discard unsaved changes.
2. Nutrient Management Plan report for 2008 no longer displays nutrient budgets, now shown exclusively on 2009 Nutrient Management Plan reports.
3. A graphic link is now available to display a conceptual image of “head to head” flow on the Application Area Fields page of the Nutrient Management Plan.
4. A “Frequently Asked Questions” (FAQ) document is now available on the “Links” page to assist users with getting started, registration, logging in, error messages, data control and other useful tips.
5. A values data download feature is now available for the Preliminary Dairy Facility Assessment, Nutrient Management Plan and Waste Management Plan.

Previous Revision (05/30/08) included:

1. Deployment of Nutrient Management Plan module.
2. Bug fixes for Nutrient Management Plan beta version.
3. Improvements to nutrient application planning tools allowing nitrate nitrogen content entries and improved validation checks.

Previous Revision (05/14/08) included:

1. Bug fixes for Nutrient Management Plan beta version including computations for fresh water applied to application areas.

Previous Revision (05/1/08) included:

1. Bug fixes for Waste Management Plan including report text displays for factored or un-factored rainfall assessments.

Previous Revision (04/30/08) included:

1. Deployment of Waste Management Plan module.
2. Bug fixes for Waste Management Plan beta version.
3. Update Preliminary Dairy Facility Assessment Documentation.
4. Addition of three nutrient application planning tools.
5. Create temporary link to 2007 Annual Report (Excel Spreadsheet).

Previous Revision (04/11/08) included:

1. Bug fixes for WMP beta.

Previous Revision (04/08/08) included:

1. Software validation now controls two potential dimensional data entry errors related to pond capacity estimates. Pond width and length must individually be greater than or equal to two multiplied by the depth multiplied by the slope (W and $L \geq 2ds$), pond bottom width cannot be less than zero. Pond liquid depth must be greater than zero (liquid depth = earthen depth – freeboard – dead storage loss), pond depth cannot be zero.
2. Single change to the PDFFA Herd Manure volumetric excretion computation, density of manure for heifers has been corrected (from 63.3 to 61.5 lbs/ft³).

Previous Revision (12/17/07) included:

1. Facility Information data entry changes now allowing alphanumeric characters (either numerals or text) on the Parcels page, for Assessor Parcel Numbers.
2. Existing Conditions data entry changes now allowing alphanumeric characters (either numerals or text) on the Application Area Parcels page, for Assessor Parcel Numbers.
3. Preliminary Dairy Facility Assessment (PDFFA) data entry changes now allowing 0.0 to 99,999.9 acres on the Land Usage page, for Crop Land Area acreages.
4. No computational Changes.

Previous Revision (11/16/07) included:

1. Preliminary Dairy Facility Assessment (PDFFA) data entry accuracy level changes now allowing decimals at the one-tenths level (.1-.9) on the Land Usage page, for Production Area, Land Area receiving rainfall, and Crop Land Area acreages.
2. Preliminary Dairy Facility Assessment (PDFFA) data entry accuracy level changes now allowing decimals at the one-tenths level (.1-.9) on the Herd and Milking Estimates page, Herd and Milking section, for Number of Milkings per day, Number of times milk tanks are emptied, and Number of hours spent milking each day.
3. Preliminary Dairy Facility Assessment (PDFFA), Herd and Milking Estimates page, Milk barn Equipment section, pull-down user selection option changes now allowing facilities without Plate Coolers to select “None”, with zero discharge of process wastewater.
4. Preliminary Dairy Facility Assessment (PDFFA), Herd and Milking Estimates page, Milk barn Equipment section, pull-down user selection option changes now allowing facilities without Vacuum pumps, Air compressors, or Chillers to select “None”, with zero discharge of process wastewater.

5. No computational changes.

Previous Revision (10/29/07) included:

1. Preliminary Dairy Facility Assessment (PDFA) data entry accuracy level changes now allowing decimals at the one-tenths level (.1-.9) on the Water Use page, Sprinkler Pen section for sprinkler cycle run time and sprinkler output/flow rate.
2. Preliminary Dairy Facility Assessment (PDFA) data entry accuracy level changes now allowing decimals at the one-tenths level (.1-.9) on the Nutrient Removal by Crops estimate page, for crop yield.
3. The PDFA Information and Computations document has been updated. No computational changes.

Previous Revision (09/18/07) included:

1. Existing Conditions Report correction to Animal Mortality Management output, duplication of "Rendering" and "Burial" as "Other" removed.
2. The PDFA Information and Computations document has been updated. No computational changes.
3. Revisions to the California Dairy Quality Assurance (CDQAP) "Links" form "Facility Information, Existing Condition Report & Preliminary Dairy Facility Assessment Report Completion Worksheet" to more accurately mirror the software application.

Previous Revision (09/07/07) included:

1. "Street Type" is no longer required eliminating Road and Avenue "Street Name" redundancy (i.e., Road 12 Rd). However, users should select a "Street Type" where no conflict or redundancy exists.
2. Telephone Number area code no longer defaults to (209).
3. Assessor Parcel Number (APN) format has changed from a 12 character, Book, Page, Parcel, Sub-Parcel (000-000-000-000) to a 16 character format (0000-0000-0000-0000).
4. E-Mail address and User Name can be edited/changed while maintaining a login and password pair association.
5. Preliminary Dairy Facility Assessment (PDFA) language change on the Water Use page, Sprinkler Pen section from "How many times does the sprinkler pen run/milking:" units as "cycles/milking", to "How many times does the sprinkler pen run/string" units as "cycles/string".
6. The PDFA Information and Computations document has been updated. No computational changes.

7. A “Links” page has been added for internet based links to three categories; Regulations, Instructional and Technical Guidance, and Forms.
8. A “What’s New” link has been added to inform users of revisions and additions.

Look for new Release Notes in the future.