

Monticello NPL Sites: Federal Facilities Agreement Meeting Minutes & Action Items, September 2007

Meeting Location

DOE-LM field office, Monticello, Utah

Meeting Date

September 18, 2007

Meeting Attendees

Chad Gilgen – Utah Department of Environmental Quality

Paul Mushovic – U.S. Environmental Protection Agency

Christina Wilson – U.S. Environmental Protection Agency

Jalena Maestas – U.S. Department of Energy

Tim Bartlett – S. M. Stoller

The semi-annual FFA meeting started at about 1:30 p.m. and concluded at about 5:00 p.m., Tuesday, September 18, 2007. The FFA meeting was followed by the annual site inspection on Wednesday and Thursday. On site staff Joe Slade and Todd Moon (S.M. Stoller) were present on Wednesday to conduct a pre-inspection safety meeting and to discuss repository leachate and telemetry information (findings are documented in the 2007 annual site inspection report).

This FFA quarterly report summarizes discussion of meeting agenda items (agenda provided as Attachment A), action items, and current and near term project work scope and schedule. The report also includes repository and Pond 4 leachate collection data, monthly and quarterly site inspection results, and site meteorological monitoring data (provided as Attachment B). This report fulfills the FFA quarterly reporting requirement for the Monticello NPL sites for the period of July through September 2007.

Topics of Discussion

A. Document status

The status of recently completed documents (see below) and those due in the near term (see below) was briefly discussed. All reporting requirements have been met or are on schedule; however DOE awaits delivery of the FY 2007 biomonitoring report from Battelle/PNNL. No issues or action items arose related to document status.

Documents Completed July through September 2007

- MMTS OU III Annual Ground Water Report; September 2007
- Monticello Site Management Plan, Section 5.0 annual update; September 2007
- MMTS OU III Analysis of Uranium Trends in Ground Water; August 2006

Documents Scheduled for October through December 2007

- 2007 Annual Inspection of the Monticello Mill Tailings (USDOE) and Monticello Radioactively Contaminated Properties Sites; December 2007 deliverable to EPA and UDEQ
- 2007 Revegetation Monitoring of the Monticello, Utah, Repository Cover; December 2007 deliverable to EPA and UDEQ
- Outline for MMTS OU III Water Quality Compliance Strategy; draft submitted to EPA and UDEQ via email on November 6, 2007
- FFA Quarterly Report for April through June 2007; submitted to EPA and UDEQ July 10, 2007
- MMTS Macroinvertebrate Sampling for 2007; overdue from Battelle-Pacific Northwest Division (results are provided in 2007 annual ground water report)

Documents Scheduled for January through March 2008

- Fiscal year 2008 Biomonitoring Program Directive (scope of work, schedule, and field and analytical methods for FY2008 biomonitoring activities; to follow BTAG conference call)
- FFA Quarterly Report for October through December 2007; due to EPA and UDEQ by January 10, 2008

B. Repository Cover

Vegetation monitoring began during the week of September 4, 2007 by a Stoller plant ecologist (L. Sheader) and soil scientist (M. Kastens). At the time of the meeting, Area 3 required additional monitoring (completed in late September 2007). Conditions are improving (less cheat grass, for example) and the perimeter area (Area 3) appears to have achieved the specified vegetation success criteria. Complete monitoring results will be reported in *2007 Revegetation Monitoring of the Monticello, Utah, Repository Cover*.

DOE, with concurrence of EPA and UDEQ, will consider establishing new revegetation success criteria (based on root depth and plant density and diversity) in FY 2008 pending the completion and review of the July 2007 soil morphology study conducted at the Monticello repository by Stoller (J. Waugh), EPA Region VIII, and others.

Site investigators (Sheader and Kastens) and on-site staff report that the vole population has declined significantly since last year. The six raptor poles installed in August 2007 are frequented by one or more pair of hawks.

Planting of 3,300 rabbit brush seedlings started on October 10, 2007 and was completed on October 12, 2007. The seedlings were planted by a subcontractor with Stoller oversight (L. Sheader). The shrubs were planted in areas with sparse shrub establishment and areas damaged previously by voles. On site staff will monitor the condition of the new plants during routine monthly repository inspections. Shrub planting information will be reported in *2007 Revegetation Monitoring of the Monticello, Utah, Repository Cover*.

Action Item: DOE will update the repository “as-built” construction drawings with the locations of July 2007 test pits (J. Waugh study), embedded lysimeter surface installations, and raptor poles.

C. MMTS OU III Water Quality

Ground Water and Surface Water

Ground water and surface water quality was discussed using draft copies of contaminant “spot plot” maps for reference. Revised copies of the maps are included in Annual Ground Water Report for OU III of MMTS (September 2007). The revised maps show the location of ex situ treatment system and infiltration trench and identify creek locations where the recently promulgated surface water standard for uranium (30 pCi/L, domestic use [Class 1C]) is exceeded.

Uranium continues to be the most pervasive contaminant in surface water and ground water. The remaining COCs are distributed in ground water in a relatively small area upgradient of the permeable reactive barrier and generally do not exceed the respective water quality goal by a factor of 2 or 3. Surface water contamination in Montezuma Creek is limited to uranium at several locations downstream of the millsite and one downstream location for selenium. Several seeps continue to contain selenium in excess of the surface water quality standard (5 µg/L). The current ground water and surface water monitoring data do not show any anomalies or unusual occurrences compared to monitoring conducted since the completion of source removal in about 1999. Water quality monitoring results are discussed in detail in the OU III annual ground water report (September 2007).

Biomonitoring

Biomonitoring data cumulative through FY 2007 were presented and discussed using concentration v. time graphs for reference. Revised copies of the graphs are included in the Annual Ground Water Report for OU III of MMTS (September 2007). Errors noted in the figures presenting insect sample results will be corrected.

Samples from Wetland 1 and 2 are below the respective level of concern for selenium for sediment, water, and insect tissue. Wetland 3 and the Sediment Pond show accumulation of selenium in sediment and surface water. Surface water in the Sediment Pond is consistently in the range of concern (2 to 5 µg/L selenium). Mean concentrations of sediment in the Sediment Pond are less than the level of concern (2 mg/kg selenium). Mean concentrations of selenium in water and sediment of Wetland 3 are at or less than the respective level of concern. Mean concentrations of selenium in insects are within the level of concern (3 to 7 mg/kg) for kicknet samples and exceeded the toxicity threshold (7 mg/kg) in April 2006 in Hester-Dendy samples. Selenium concentrations in insect tissue show no obvious trending.

EPA questioned if “...selenium concentration in the various media...” as appearing in the April 2007 FFA meeting minutes intends to include surface water, sediment, or insect tissue, or primarily insect tissue. This will be resolved by the BTAG when results of spring 2007 biomonitoring activities have been reviewed.

With the submittal of the FY 2007 report to the BTAG, DOE will include a proposed biomonitoring work scope for FY 2008 and will request a BTAG teleconference within 30 to

45 days of receipt of the report. DOE will subsequently prepare a Program Directive to direct FY 2008 biomonitoring activities.

The planned scope of biomonitoring for FY 2008 as determined in the April 2007 FFA meeting with members of the BTAG comprises sediment and surface water sampling and analysis for selenium at Wetlands 1, 2, 3, and the Sediment Pond; and, aquatic insect sampling at Wetland 3 (kicknet sampling) and the Sediment Pond (kicknet and artificial substrate sampling). These tasks will repeat those completed in FY 2007. In FY 2008 a bird survey will be conducted by a qualified specialist in recognizing threatened and endangered species (e.g., ornithologist).

Groundwater Compliance Strategy

Statistical analysis of OU III ground water monitoring data by DOE has determined that ground water restoration is not proceeding as expected. Under the requirement of the ROD for OU III this outcome compels DOE to implement a contingency response. DOE will initiate response actions by preparing and submitting a draft outline for a ground water compliance strategy based on the assumption that the accepted restoration period (42 years from October 2002) will not be achieved.

The outline will identify a compliance strategy that may include provisions to (1) employ field and/or laboratory studies to evaluate factors accounting for the less than expected progress of restoration, (2) re-calibrate the ground water flow and solute transport model and re-simulate ground water restoration with and without active treatment scenarios, (3) provide and implement a rationale for continuing active ground water treatment with the existing ex situ system, (4) provide and implement a rationale for decommissioning the in situ reactive barrier, (5) evaluate the feasibility of technical impracticability of ground water restoration through EPA and/or alternate corrective action concentrations limits specified in Utah Administrative Code R317-6-6.15, (6) evaluate ground water monitoring data annually for concentration trending, and (7) if determined necessary, implement an active treatment remedy (example active remedies are in Section 11.5 of the OU III ROD).

Action Item: Stoller is to provide DOE with the 1999 EPA OWSER directive on use of monitored natural attenuation (completed November 6, 2007).

Note: DOE submitted a draft outline of a ground water compliance strategy to EPA and UDEQ on November 6, 2007.

D. Miscellaneous Topics

Certification Letters for City Properties/City Maintenance Issues

DOE will prepare letters in FY 2008 to certify to the City of Monticello that the properties received from DOE were remediated in accordance with the selected remedy for OU I and OU II. The certification letters were withheld until restoration issues were recently resolved and the Cooperative Agreement was extended. EPA requested that DOE provide EPA and UDEQ with copies of the certification letters.

DOE informed EPA and UDEQ that DOE's responsibility on property transferred to the City of Monticello is to ensure that the remedy remains protective of human health and the environment and would respond to conditions that compromised the protectiveness of the remedy. EPA

recommended DOE to review correspondence with the City dated 12/23/02 (signed February 2003) and the Covenant Deferral Request for information on roles and responsibilities for managing the transferred properties to identify commitments from the City for maintenance of the plot.

DOE recommended that EPA provide an annual letter to the National Park Service to inform of maintenance issues for the City park on the former millsite. EPA indicated that it would prepare and transmit a letter to the NPS which would include results from the Annual Site Inspection.

PRB and Treatment Cell Status

The ex situ treatment system is operating at about 8 gallons per minute. The extraction well and treatment reactors can sustain greater rates; however, the maximum discharge rate of the infiltration trench is about 8 gpm. DOE will inquire about obtaining a surface water discharge permit discharge in FY 2008 so that the treatment rate can be increased. EPA noted that a permit may not be required because CERCLA sites are required to meet substantive requirements and not all administrative requirements.

Property 1077 Drainage Ditch

Repair of this ditch was completed by the City in August 2007. Sediment (scanned and verified clean) was used in rebuilding the berm.

VMTE

Victims of Mill Tailings Exposure is a citizen group seeking medical assistance for illnesses that are believed by the group to result from exposure to contaminated material related to the Monticello mill. Most recently the group has established contact with the Utah congressional delegation in Washington, D.C. for funding and other assistance.

Action Item: C. Gilgen will obtain information on the current status of Monticello study by the Utah Department of Health (this information was provided on October 11, 2007).

Reuse Proposals

Four Corners School and Bicycle path: if developed on City-owned land transferred from DOE, the approval process requires the City to submit a proposal for use to the NPS which then shall forward the request to EPA and UDEQ for approval.

City shop: use of the former millsite staging area as a public works maintenance facility is no longer being pursued by the City of Monticello. That particular use was determined by the National Parks Service to be an improvement inconsistent with the Federal Land to Parks program.

G. Schedule & Reporting (October through December 2007)

Biomonitoring

- 1) Distribute FY 2007 biomonitoring report to BTAG for 30 to 45 day review (DOE anticipates receipt of the report in mid-November 2007 and will then distribute to the BTAG by December 2007).
- 2) BTAG teleconference (January 2008) to discuss cumulative biomonitoring results and future scope of work.

OU III

- 1) OU III ground water and surface water monitoring (completed week of October 8, 2007).
- 2) Outline of a ground water compliance strategy for regulatory review (submitted November 6, 2007).

Repository

- 1) Prepare and submit 2007 vegetation monitoring report (December 2007).

Site Inspection

- 1) Prepare and submit annual site inspection report (December 2007).

ATTACHMENT A

September 2007 Monticello FFA
Meeting Agenda

**MONTICELLO NPL SITES
FFA MEETING AGENDA and ANNUAL INSPECTION SCHEDULE
SEPTEMBER 18 - 20, 2007
MONTICELLO, UTAH**

I. FFA MEETING, Tuesday, 9/18/07, 1:00 pm to 5:00 pm

Document Status

LTSM Plan: Revision 0 distributed June 20, 2007. Recipients: DOE, UDEQ, DOE, Stoller management, Stoller on-site LM representatives, information repositories, UDOT Monticello station, City of Monticello.

SMP: update of Section 5.0 for FYs 2008, 2009, and 2010: draft to be submitted to EPA and UDEQ by 9/1/07, final due to EPA and UDEQ 9/30/07. Milestone deliverables specified in the SMP for those years are the annual site inspection reports, annual ground water reports, and the SMP Section 5 updates.

FY 2007 OU III Annual Ground Water Report: due 9/30/07—on schedule.

Annual Cover Vegetation Monitoring Report: due 12/31/07; not started, fieldwork scheduled/completed week of 9/04/07.

FY 2007 Annual Site Inspection Report: due 12/31/07; not started, field inspection to be completed week of 9/17/07.

Analysis of Uranium Trends in Ground Water Report: revised draft submitted to EPA and UDEQ on May 21, 2007. Due 9/30/07—on schedule following review comments received via teleconference 8/7/07.

FY 2007 Biomonitoring Report: to summarize biomonitoring results for sediment, surface water, and aquatic insects through April 2007 sampling. No deadline has been established for this report. Data only for sediment, surface water, and aquatic insects collected in FY 2007 (October 2006 and April 2007 sampling events) to be included in FY 2007 OU III Annual Ground Water Report.

Water Quality Restoration

Review ground water and surface water monitoring data and scope—refer to OU III contaminant time series plots and contaminant distribution maps (from FY 2007 OU III Annual Ground Water Report).

Review radon results from wells at south end of slurry wall for evidence residual tailings contamination (April 2007 action item).

Review ground water restoration progress by initial method of comparison to model forecasts per region of aquifer—refer to summary graphs (from FY 2007 OU III Annual Ground Water Report).

Review findings of nonparametric statistical analysis of uranium concentration trends in ground water as presented in Analysis of Uranium Trends in Ground Water Report (May 21, 2007 draft).

Review current 5-year strategy for evaluating restoration progress and identifying response actions and triggers—refer to April 2007 FFA meeting minutes report and DOE position paper outline as initiated from August 7, 2007 conference call.

DOE will prepare a position paper to prescribe a ground water compliance strategy, in concurrence with EPA and UDEQ, for the current five-year review period. An outline of the position paper will be agreed upon by the end of October 2007. The position paper will be finalized by August 2008.

Biomonitoring

Review biomonitoring data and scope—refer to OU III selenium distribution maps (from FY 2007 OU III Annual Ground Water Report) and time series plots. The scope for FY 2008 biomonitoring comprises a bird survey in spring-summer 2008 with emphasis on presence/absence of threatened or endangered species, aquatic insect sampling in spring 2008, and wetland and pond sediment and surface water sampling in spring 2008.

Review current 5-year decision process for determining future biomonitoring scope—refer to April 2007 FFA meeting minutes report.

Repository Cover

Vegetation monitoring scheduled/completed during week of 9/04/07. Review FY 2007 cover vegetation monitoring findings if available or FY 2006 findings if not.

Shrub plantings: scheduled to plant approximately 3,300 rabbitbrush seedlings in the last two weeks of September 2007.

Voles: status of vole population and spring 2007 re-survey. Six raptor poles installed on Monday August 6, 2007. DOE will consider winter grazing as-needed but not until after the new shrubs are established.

Vegetation monitoring will occur in FY 2008.

Consider re-evaluating the vegetation success criteria as an FY 2008 task.

Update the repository as-builts to include ACAP components and locations of backfilled test pits from the soil development study conducted on the cover in July 2007.

PRB & Ex Situ Treatment System

Review status of ground water treatment systems—flow rates, effluent quality, effluent disposition, and treatment technology investigations in progress.

Review status of infiltration trench. Plans are in progress to increase the infiltration capacity to manage all treatment system effluent and to obtain a surface water discharge permit for backup purposes.

Cooperative Agreement with City

The agreement was extended in April 2007 to December 31, 2016. (DOE)

Certification Letters for City Properties

Letters were on hold until the CERCLA 5-year reports were finalized. Preparation and submittal of the certification letters will be done in FY 2008. The letters will include language to identify the City as obligated to maintain the affected properties consistent with the terms of the land transfer such that the remedies remain protective.

Property 1077 Drainage Ditch

Noted in 2006 site inspection that a drainage ditch needs repair by the City to prevent runoff onto adjacent private property (property 1079). The repair has recently been placed on the City maintenance schedule. (DOE)

Reuse Proposals

Four Corners School, City Shop, Bicycle Path. (DOE)

Community Actions

Review status of VMTE activity—news release, visit to DOE HQ, Information Requests. (DOE)

II. ANNUAL FIELD INSPECTION

Wednesday 9/19/07, 8:00 a.m. – 6 p.m.

8:00 – 9:30 a.m.: Meet at field office.

Pre-entry site briefings for new visitors if any.

On-site LM Representatives presentations

- Todd Moon: LCRS & LDS operational summary
- Joe Slade: Landowner/City/UDOT issues
- Joe and Todd: Other issues; IC issues.

Review inspection checklists and maps.

Organize into teams, distribute checklists (complete 1 checklist per team), and allocate work.

9:30 a.m. – 6:00 p.m.: Conduct Inspections

Team 1: inspect Administrative and Records (MMTS and MVP checklists item V), Repository (MMTS checklist item VI), Soil and Sediment Properties (MMTS checklist item VIII), Ground Water Management Area (MMTS checklist item IX), and OU III Monitoring Wells and Water Treatment System (MMTS checklist item X).

Team 2: inspect City-owned properties (MMTS checklist item VII, includes the former Millsite and property MP-00211-VL), inspect Streets and Utilities, UDOT, and Property MS-00176-VL (MVP checklist item VI).

III. MEETING AND INSPECTION SUMMARY

Thursday 9/20/07, 8:00 a.m. – open

Meet at field office or other predetermined location to discuss remaining field inspection items to be completed.

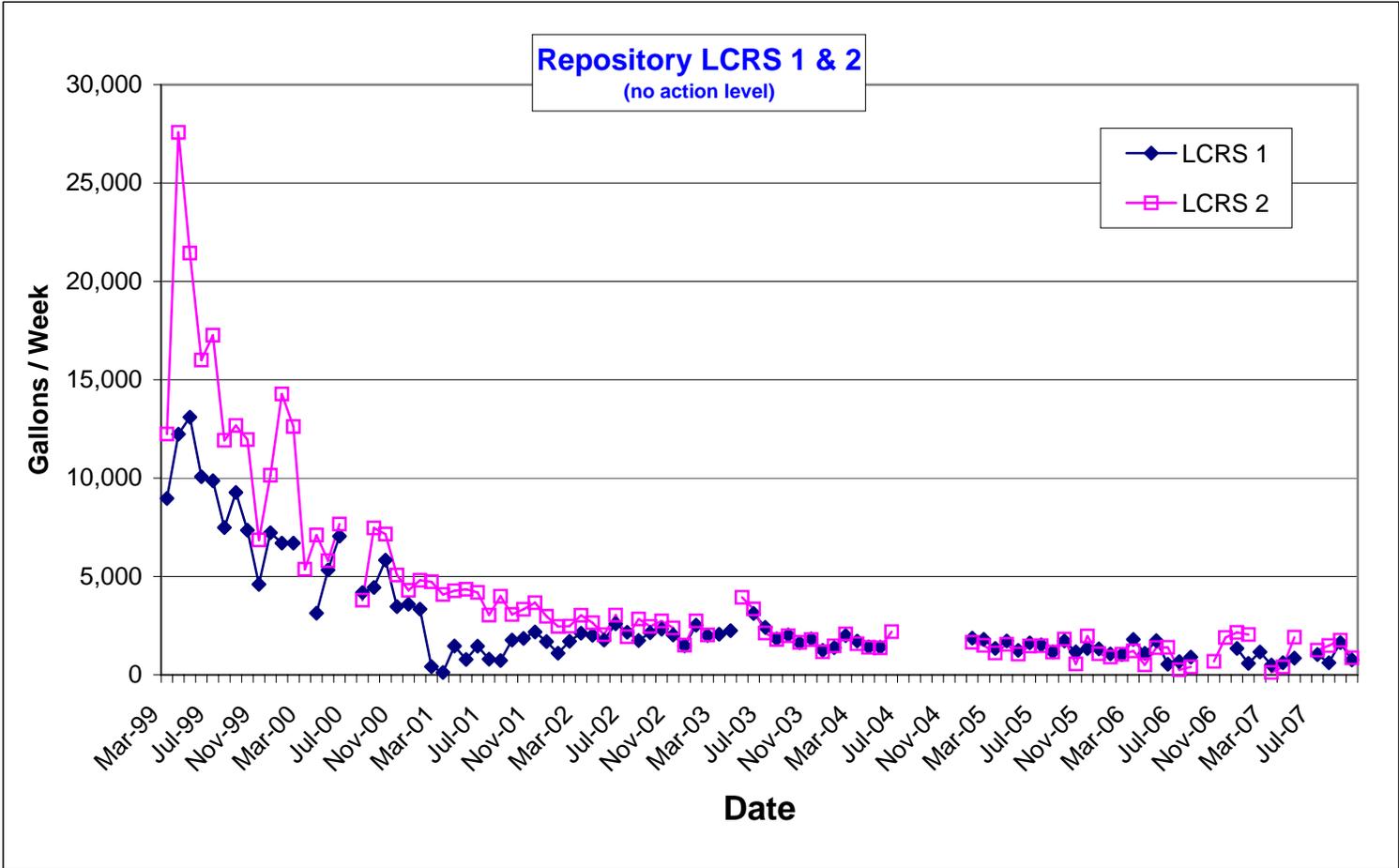
After field inspections are completed, meet to:

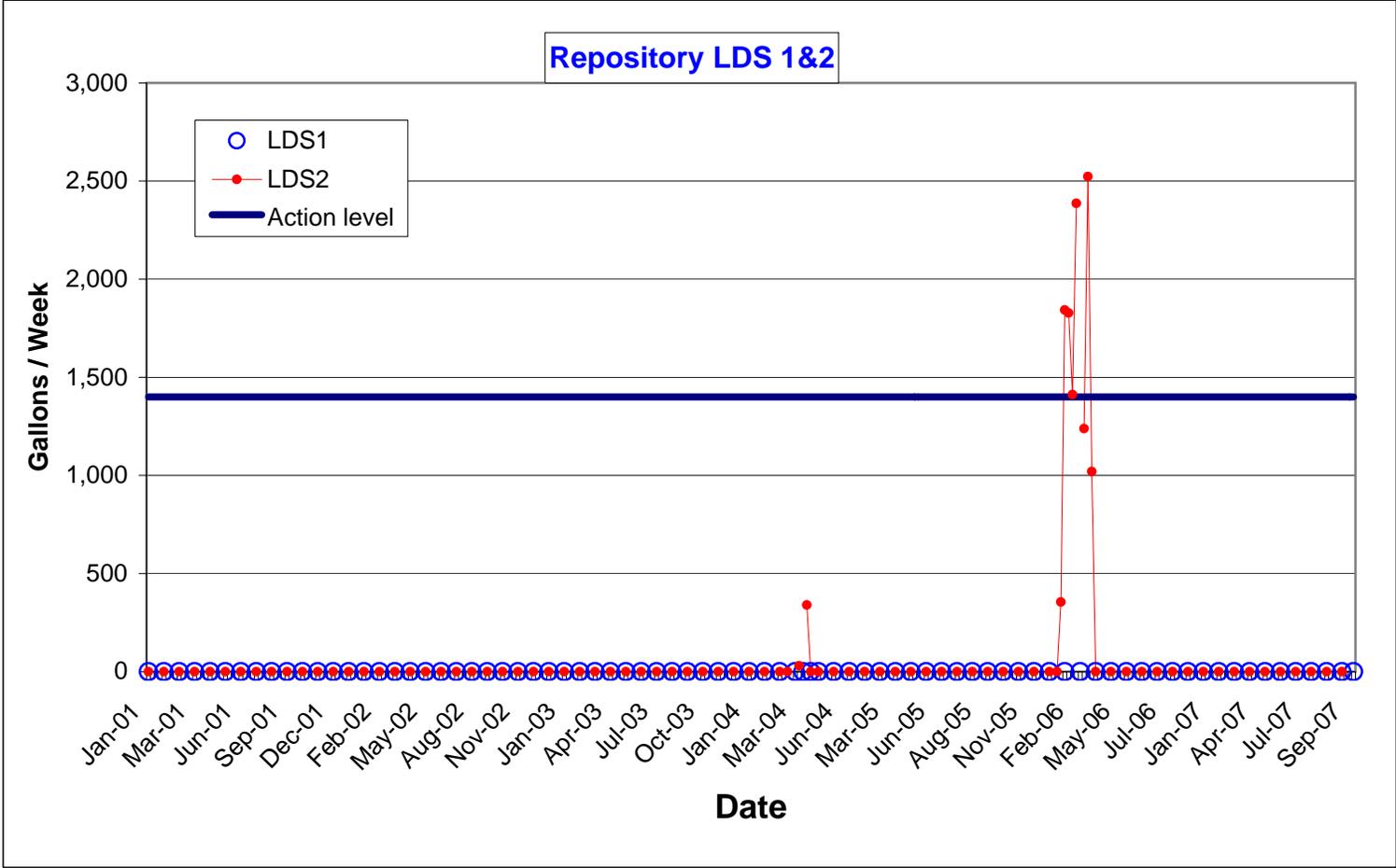
- Review inspection findings.
- Determine inspection follow-up actions.
- Review FFA meeting action items.

ATTACHMENT B

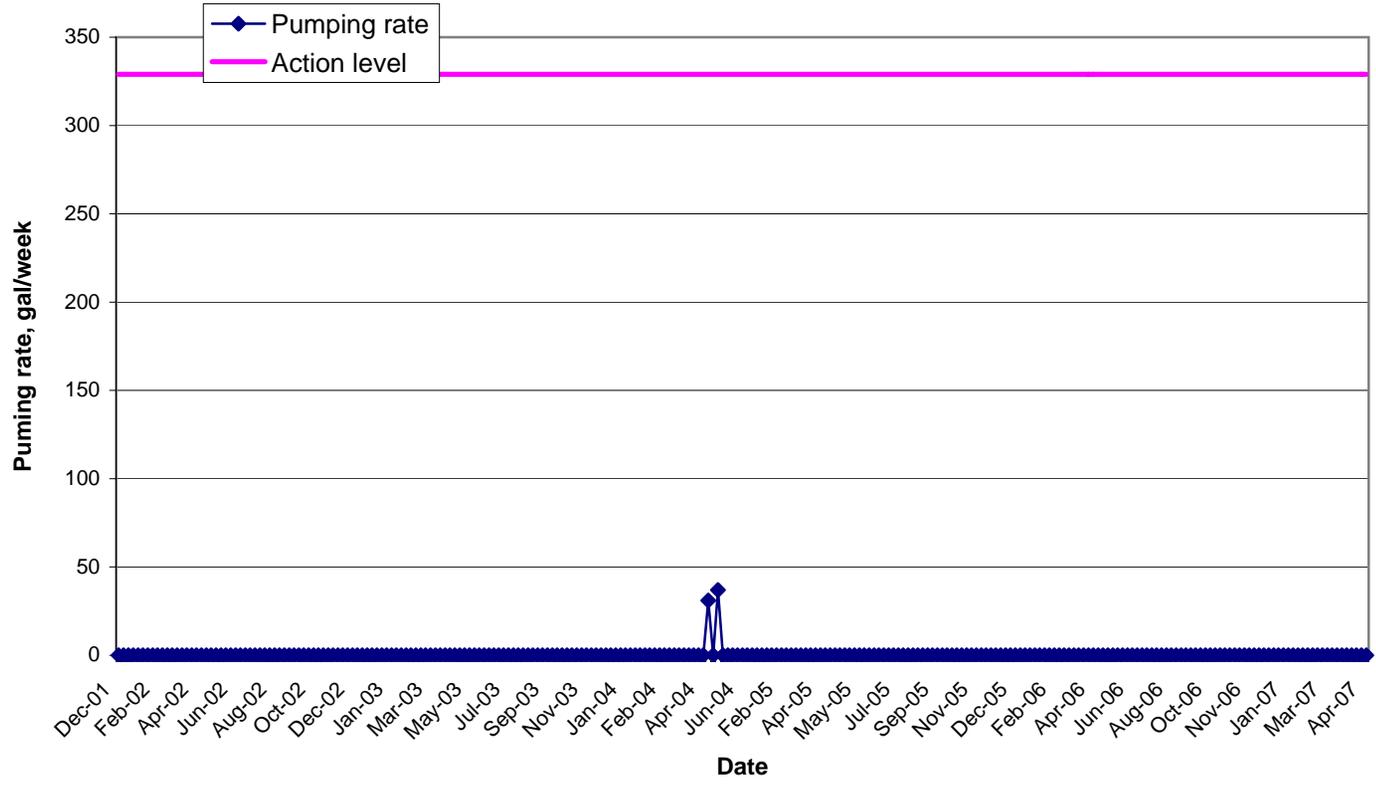
September 2007 Monticello FFA Meeting

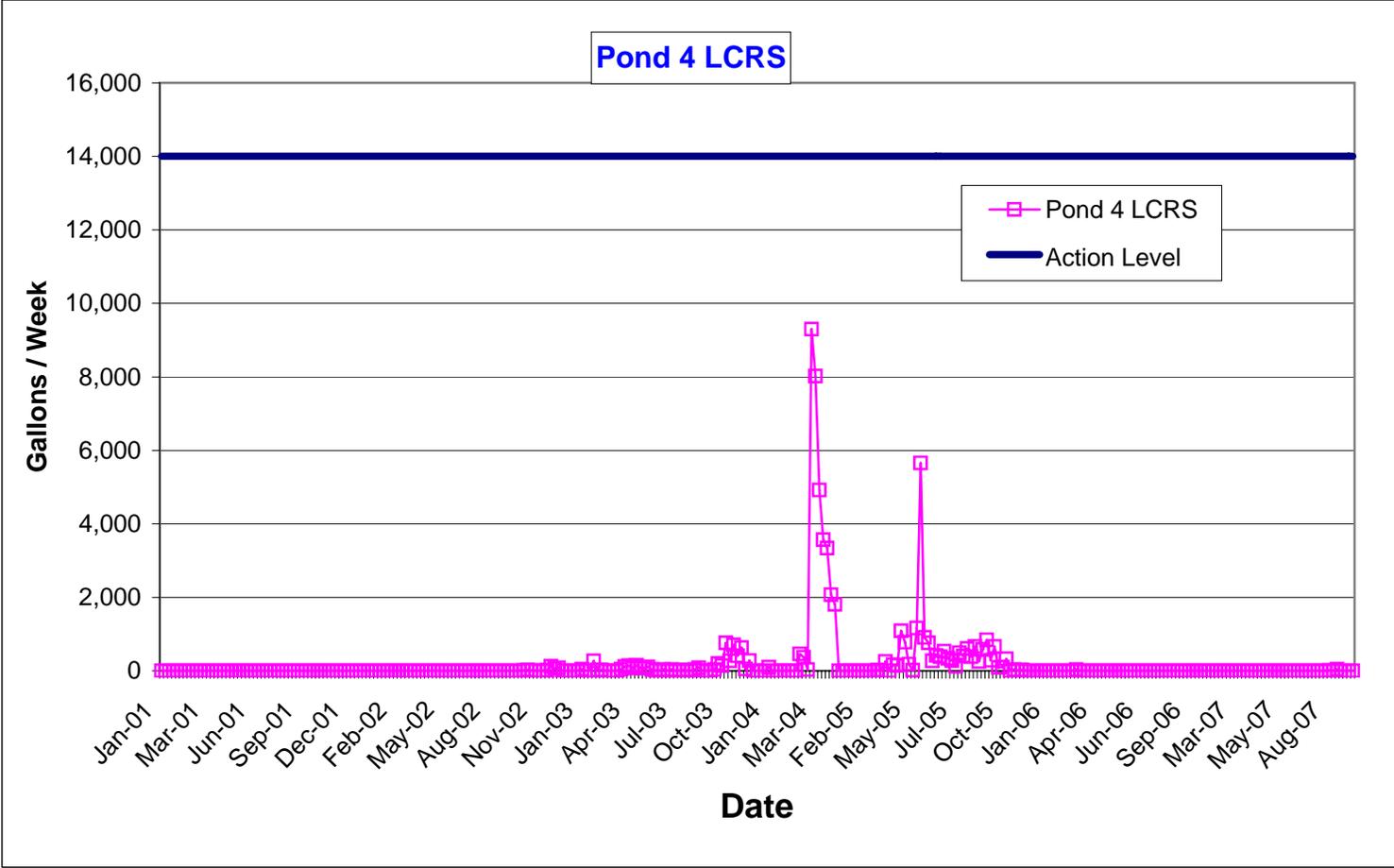
Repository telemetry LCRS & LDS data, monthly and
quarterly inspection checklists, meteorological data





Pond 4 LDS





Repository Area Surveillance Checklist

Monthly Surveillance Quarterly Surveillance (Feb., May, Aug., Nov.)

Storm Event Triggered Surveillance due to inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	<u>yes</u>	
Roads ^a	<u>yes</u>	
Signs	<u>yes</u>	
Site monuments	<u>yes</u>	
Drainage ditches ^a	<u>yes</u>	
Manholes	<u>yes</u>	
Vegetation	<u>yes</u>	
Evidence of erosion of:		
Top of disposal cell ^a	<u>NO</u>	
Disposal cell sideslopes ^a	<u>NO</u>	
Ditches	<u>NO</u>	
Surrounding area	<u>NO</u>	
Evidence of:		
Vandalism	<u>NO</u>	
Intrusion by livestock	<u>NO</u>	
Burrowing animal damage	<u>X</u>	<u>Squirrel - vole burrows from before</u>
Intrusion by humans	<u>NO</u>	
Accumulation of trash	<u>X</u>	

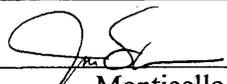
Additional Quarterly Surveillance Requirements

Note: All transects, shown in Figure 3-1, must be walked during this inspection.

Condition of:		
Settlement plate structures	<u>OK</u>	
Manholes ^b	<u>OK</u>	<u>NEW instrumentation was installed this month (July)</u>
Sediment Ponds	<u>OK</u>	
Evidence of:		
Structural Instability	<u>NO</u>	

Additional Comments

Study Plot Excavations were worked the last week of July - Jody W. Brought a team of folks to Study Soil on the Cell cover and also @ the lysimeter areas.

Signature  JOE SLADE Date 8-2-2007
 Monticello LM Representative

^aInspections required following a significant storm event
^bOpen to inspect quarterly

Figure 3-5. Example Repository Area Surveillance Checklist

LMNT-4.4

Repository Area Surveillance Checklist

____ Monthly Surveillance Quarterly Surveillance (Feb., May, Aug., Nov.)

____ Storm Event Triggered Surveillance due to ____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	<u>yes</u>	
Roads ^a	<u>yes</u>	
Signs	<u>yes</u>	<u>5 area Perimeter Signs Replaced</u>
Site monuments	<u>yes</u>	
Drainage ditches ^a	<u>yes</u>	
Manholes	<u>yes</u>	
Vegetation	<u>yes</u>	
Evidence of erosion of:		
Top of disposal cell ^a	<u>yes</u>	
Disposal cell sideslopes ^a	<u>yes</u>	
Ditches	<u>yes</u>	
Surrounding area	<u>yes</u>	
Evidence of:		
Vandalism	<u>NO</u>	
Intrusion by livestock	<u>yes</u>	<u>open gates let sheep in</u>
Burrowing animal damage	<u>yes</u>	<u>some of the Sage/Rabbit brush still dying</u>
Intrusion by humans	<u>NO</u>	
Accumulation of trash	<u>NO</u>	

Additional Quarterly Surveillance Requirements

Note: All transects, shown in Figure 3-1, must be walked during this inspection.

Condition of:		
Settlement plate structures	<u>yes</u>	
Manholes ^b	<u>yes</u>	
Sediment Ponds	<u>yes</u>	
Evidence of:		
Structural Instability	<u>NO</u>	

Additional Comments
Sage & Rabbit brush* are scheduled to be planted this month
afternoon showers are going on now - started the last week of Aug

Signature Joe Slade  Date 9-3
 Monticello LM Representative

^aInspections required following a significant storm event
^bOpen to inspect quarterly

Figure 3-5. Example Repository Area Surveillance Checklist

LMNT 4.4

Repository Area Surveillance Checklist

Monthly Surveillance Quarterly Surveillance (Feb., May, Aug., Nov.)

Storm Event Triggered Surveillance due to inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	<u>yes</u>	_____
Roads ^a	<u>yes</u>	_____
Signs	<u>yes</u>	_____
Site monuments	<u>yes</u>	_____
Drainage ditches ^a	<u>yes</u>	_____
Manholes	<u>yes</u>	_____
Vegetation	<u>yes</u>	_____
Evidence of erosion of:		
Top of disposal cell ^a	<u>NO</u>	_____
Disposal cell sideslopes ^a	<u>NO</u>	_____
Ditches	<u>NO</u>	_____
Surrounding area	<u>NO</u>	_____
Evidence of:		
Vandalism	<u>NO</u>	_____
Intrusion by livestock	<u>NO</u>	_____
Burrowing animal damage	<u>yes</u>	<u>Some gopher mounds observed</u>
Intrusion by humans	<u>NO</u>	_____
Accumulation of trash	<u>no</u>	<u>Some wind blown weeds - NOT Real and through</u>

Additional Quarterly Surveillance Requirements

Note: All transects, shown in Figure 3-1, must be walked during this inspection.

Condition of:

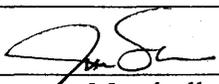
Settlement plate structures	_____	_____
Manholes ^b	<u>yes</u>	_____
Sediment Ponds	<u>yes</u>	_____

Evidence of:

Structural Instability	_____	_____
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Additional Comments

Rain this past week has helped the vegetation.
Manholes were cleaned out for the annual inspection.

Signature  Joe Slade
 Monticello LM Representative

Date 10-2-2007

^aInspections required following a significant storm event
^bOpen to inspect quarterly

Figure 3-5. Example Repository Area Surveillance Checklist

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 0 - .25

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>yes</u>	
Roads	<u>yes</u>	
Signs	<u>yes</u>	
Visible piping	<u>yes</u>	
Visible liner and anchors	<u>yes</u>	
Rescue equipment	<u>yes</u>	<u>New Cabinet installed w/ Rescue Equip placed inside - Cabinet is mouse proof!</u>
Evidence of erosion of:		
Top of Pond 4 berm	<u>NO</u>	
Pond 4 sideslopes	<u>NO</u>	
Ditches	<u>NO</u>	
Surrounding area	<u>NO</u>	
Seepage from Pond 4	<u>NO</u>	
Overtopping of Pond 4	<u>NO</u>	
Evidence of:		
Vandalism	<u>NO</u>	
Intrusion by wildlife	<u>NO</u>	
Intrusion by humans	<u>NO</u>	
Accumulation of trash	<u>NO</u>	<u>Some of the old hoses were removed from the outer areas of the pond - 4" etc. was taken to the trash.</u>

Additional Comments

Water level measure instruments were installed this month (July) and all the old "Air" system materials was removed from the cabinet.

Monticello LM Representative [Signature] [Signature] Date 8-2-2007

Figure 3-6. Example Checklist for Monthly Pond 4 Surveillance

LMNT 4.4

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 - 0 -

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>yes</u>	
Roads	<u>yes</u>	
Signs	<u>yes</u>	<u>Rod / Contain area Signs have been Replaced around the pond and area fence</u>
Visible piping	<u>yes</u>	
Visible liner and anchors	<u>yes</u>	
Rescue equipment	<u>yes</u>	<u>new Cabinets in place with Equipment in easy access bags</u>
Evidence of erosion of:		
Top of Pond 4 berm	<u>NO</u>	
Pond 4 sideslopes	<u>NO</u>	
Ditches	<u>NO</u>	
Surrounding area	<u>NO</u>	
Seepage from Pond 4	<u>NO</u>	
Overtopping of Pond 4	<u>NO</u>	
Evidence of:		
Vandalism	<u>NO</u>	
Intrusion by wildlife	<u>NO</u>	
Intrusion by humans	<u>NO</u>	
Accumulation of trash	<u>NO</u>	

Additional Comments

old Emergency cabinets were removed and the new cabinets installed at the N.E. corner of the Pond- the only water in the pond is coming from the Ruins that have not been very big.

Monticello LM Representative Joe Slade Date 9-3-2007

LMNT 4.4

Figure 3-6. Example Checklist for Monthly Pond 4 Surveillance

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 0.75 ft approx

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>yes</u>	_____
Roads	<u>yes</u>	_____
Signs	<u>yes</u>	_____
Visible piping	<u>yes</u>	_____
Visible liner and anchors	<u>yes</u>	_____
Rescue equipment	<u>yes</u>	_____
Evidence of erosion of:		
Top of Pond 4 berm	<u>NO</u>	_____
Pond 4 sideslopes	<u>NO</u>	_____
Ditches	<u>NO</u>	_____
Surrounding area	<u>NO</u>	_____
Seepage from Pond 4	<u>NO</u>	_____
Overtopping of Pond 4	<u>NO</u>	_____
Evidence of:		
Vandalism	<u>NO</u>	_____
Intrusion by wildlife	<u>NO</u>	_____
Intrusion by humans	<u>NO</u>	_____
Accumulation of trash	<u>NO</u>	_____

Additional Comments
water that is in the pond has come from the rain only-

Monticello LM Representative Joe Sade Date 10-2-2007

Figure 3-6. Example Checklist for Monthly Pond 4 Surveillance

MONTHLY CLIMATOLOGICAL SUMMARY for JUL. 2007

NAME: Monticello LTSM CITY: STATE:
 ELEV: 7000 ft LAT: 37° 54' 00" N LONG: 109° 18' 00" W

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	75.5	89.8	4:30p	58.7	6:00a	0.5	11.0	0.00	7.2	30.0	5:30p	SW
2	77.6	91.8	4:00p	61.8	5:00a	0.2	12.8	0.00	9.0	33.0	6:30p	SSW
3	79.7	91.8	3:30p	62.6	5:30a	0.0	14.8	0.00	7.5	32.0	4:00p	WNW
4	78.5	90.4	4:30p	63.5	6:30a	0.0	13.5	0.00	8.3	24.0	11:00p	W
5	73.8	86.6	2:30p	64.4	6:00a	0.0	8.8	0.00	9.6	31.0	4:00a	SSE
6	72.6	84.4	5:00p	63.6	6:00a	0.0	7.7	0.00	10.8	26.0	9:00p	SSE
7	73.6	87.7	6:00p	60.0	7:00a	0.3	8.9	0.00	10.6	31.0	8:00p	SE
8	75.6	88.2	3:30p	62.0	6:30a	0.1	10.7	0.00	8.8	31.0	7:00p	WNW
9	76.9	88.4	4:00p	65.3	5:30a	0.0	11.9	0.00	8.9	34.0	5:30p	WNW
10	77.1	89.5	4:00p	63.2	6:30a	0.0	12.1	0.00	7.0	46.0	2:00p	SW
11	73.9	85.2	5:00p	63.3	12:00m	0.1	9.0	0.00	12.8	29.0	1:00p	SSE
12	66.4	76.7	5:00p	57.8	6:00a	1.8	3.1	0.02	6.5	25.0	2:30p	NNW
13	72.0	84.1	4:30p	57.9	5:00a	1.4	8.4	0.00	7.4	30.0	3:30p	WNW
14	75.1	87.6	4:30p	58.2	5:00a	0.7	10.8	0.00	7.7	27.0	3:00p	NNW
15	76.8	89.3	3:30p	63.6	4:00a	0.0	11.8	0.00	7.7	31.0	4:00p	SSE
16	74.9	88.4	1:00p	66.2	3:00a	0.0	9.9	0.02	6.4	44.0	5:00p	ESE
17	75.9	87.7	4:00p	66.4	2:30a	0.0	10.9	0.00	8.4	29.0	6:30p	SSE
18	75.0	85.7	3:30p	63.1	6:30a	0.1	10.0	0.02	6.9	27.0	1:30p	W
19	74.2	86.9	5:00p	63.5	3:00a	0.0	9.2	0.00	8.9	30.0	2:30p	SSE
20	70.4	81.8	3:30p	62.4	4:30a	0.3	5.8	0.03	11.3	29.0	7:00p	SSE
21	70.2	83.1	3:30p	62.4	12:00m	0.1	5.4	0.08	9.7	34.0	5:00p	SSE
22	68.9	82.3	5:30p	59.9	4:30a	1.2	5.1	0.00	6.6	28.0	6:30p	SE
23	71.2	83.6	5:30p	61.0	5:00a	0.7	6.9	0.00	7.0	30.0	9:30p	SE
24	71.7	84.7	4:00p	58.2	5:30a	1.1	7.7	0.00	6.9	28.0	3:30p	SSE
25	72.6	83.6	5:00p	62.1	6:00a	0.4	8.0	0.00	7.5	25.0	2:00p	SSE
26	67.9	81.6	12:30p	57.1	7:00a	1.6	4.5	0.05	7.4	33.0	1:00p	NNW
27	65.2	79.9	12:00p	58.2	6:00a	2.4	2.6	0.06	5.5	25.0	1:00p	S
28	65.4	77.6	12:30p	54.4	6:30a	2.5	2.8	0.01	6.3	42.0	5:00p	NW
29	70.9	85.0	3:30p	58.7	3:00a	1.3	7.2	0.00	7.5	35.0	7:00p	SSE
30	68.9	82.2	4:00p	59.8	10:30p	1.1	5.0	0.39	11.1	30.0	1:00p	SSE
31	68.9	83.0	4:30p	59.0	2:30a	0.8	4.6	0.00	7.3	24.0	6:00p	SE
	72.8	91.8	2	54.4	28	18.7	260.9	0.68	8.2	46.0	10	SSE

Max >= 90.0: 3
 Max <= 32.0: 0
 Min <= 32.0: 0
 Min <= 0.0: 0

Max Rain: 0.39 ON 07/30/07

Days of Rain: 8 (>.01 in) 1 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for AUG. 2007

NAME: Monticello LTSM CITY: STATE:
 ELEV: 7000 ft LAT: 37° 54' 00" N LONG: 109° 18' 00" W

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	71.9	84.8	2:30p	58.7	7:00a	0.6	7.5	0.00	5.7	31.0	4:30p	SSE
2	68.8	79.8	5:30p	58.8	6:30a	1.1	4.9	0.03	7.5	26.0	4:00a	SSE
3	67.2	75.0	2:30p	61.3	4:30a	0.6	2.8	0.03	8.1	27.0	11:30a	SSE
4	65.8	74.2	12:00p	59.8	6:30a	1.3	2.1	0.15	3.9	24.0	12:30p	SW
5	67.1	77.3	4:30p	59.8	7:00a	1.2	3.4	0.00	10.9	28.0	11:30p	SSE
6	66.4	77.8	4:30p	58.6	7:00a	1.8	3.3	0.00	5.7	25.0	12:00m	SE
7	67.0	78.7	6:00p	56.5	7:30a	2.2	4.2	0.00	11.8	34.0	5:00p	SSE
8	68.8	80.3	5:00p	53.4	6:30a	1.7	5.6	0.00	7.9	24.0	1:00p	SE
9	71.1	82.9	4:30p	58.4	6:30a	1.2	7.3	0.00	9.0	32.0	1:30p	SSE
10	71.5	83.1	5:00p	58.6	5:30a	0.9	7.4	0.00	8.4	34.0	5:00p	SSW
11	74.1	85.7	3:30p	59.0	6:30a	0.5	9.5	0.00	8.6	27.0	1:00p	SSW
12	75.0	86.8	4:00p	62.8	6:00a	0.0	10.1	0.00	7.6	31.0	1:30p	SSE
13	72.9	87.5	2:30p	62.9	10:30p	0.1	8.0	0.27	9.5	37.0	8:30p	SSE
14	70.8	81.4	5:00p	59.0	7:00a	0.7	6.5	0.00	6.2	19.0	8:30p	W
15	69.0	79.4	6:00p	59.0	5:30a	0.6	4.6	0.07	6.3	22.0	1:30p	W
16	70.1	81.7	12:30p	60.1	7:00a	0.8	5.9	0.06	6.5	28.0	8:30p	SW
17	70.5	82.8	5:30p	60.7	3:30a	0.7	6.2	0.00	7.5	24.0	1:30p	SSE
18	71.0	83.0	3:30p	60.5	5:00a	0.5	6.5	0.00	7.8	24.0	3:30p	SSW
19	73.3	84.7	5:00p	59.9	7:00a	0.3	8.6	0.00	9.6	35.0	4:00p	SSW
20	72.8	84.2	4:00p	58.5	7:30a	0.7	8.5	0.00	6.3	24.0	4:00p	SSE
21	73.9	87.1	5:30p	59.7	3:30a	0.6	9.4	0.00	5.7	18.0	2:30p	SSW
22	74.8	85.8	5:00p	61.9	6:30a	0.2	10.1	0.00	11.0	33.0	3:00p	SSW
23	73.8	83.7	4:00p	56.5	6:30a	0.5	9.3	0.00	11.9	47.0	3:00p	SSE
24	72.1	84.0	4:00p	59.0	6:00a	0.7	7.8	0.00	8.3	28.0	4:30p	SW
25	74.6	86.9	2:30p	63.5	6:30a	0.0	9.7	0.00	9.0	30.0	2:30p	SSW
26	70.4	84.0	5:00p	58.4	11:30p	1.3	6.7	0.06	10.2	34.0	6:00p	SE
27	58.6	67.7	1:30p	54.2	11:30p	6.5	0.1	0.45	9.1	33.0	2:30p	SSE
28	63.7	77.4	6:00p	48.5	6:00a	4.6	3.2	0.01	6.3	29.0	2:30p	NNW
29	69.2	80.9	4:00p	59.0	5:30a	1.2	5.4	0.00	6.4	20.0	12:00p	W
30	69.8	80.0	2:30p	60.6	7:30a	0.6	5.4	0.00	9.2	26.0	10:00a	SSE
31	68.2	80.1	1:00p	60.2	2:30a	0.4	3.6	0.37	8.7	27.0	3:30p	SSE
	70.1	87.5	13	48.5	28	34.1	193.6	1.50	8.1	47.0	23	SSE

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.45 ON 08/27/07

Days of Rain: 9 (>.01 in) 4 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for SEP. 2007

NAME: Monticello LTSM CITY: STATE:
 ELEV: 7000 ft LAT: 37° 54' 00" N LONG: 109° 18' 00" W

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	68.8	82.1	3:00p	56.3	7:00a	2.0	5.8	0.00	6.3	30.0	4:30p	SSE
2	69.1	81.4	3:00p	59.9	7:00a	0.8	4.8	0.00	9.0	33.0	5:00p	SE
3	68.2	82.4	4:30p	59.0	12:00m	1.3	4.5	0.02	8.6	30.0	6:30p	SSE
4	65.2	75.6	1:00p	54.6	7:00a	2.5	2.6	0.11	6.4	23.0	1:00p	SSE
5	67.9	76.4	3:30p	59.6	4:00a	1.1	4.0	0.09	9.5	32.0	4:00p	SSE
6	65.8	75.4	4:30p	55.7	7:30a	2.5	3.3	0.00	6.6	27.0	4:30p	WNW
7	64.1	75.1	5:00p	52.9	7:00a	3.7	2.9	0.00	8.8	30.0	2:30p	WNW
8	67.2	79.2	2:30p	53.7	5:00a	2.6	4.9	0.00	5.6	22.0	2:30p	SSW
9	67.5	80.0	3:00p	55.3	7:30a	1.9	4.4	0.00	10.0	29.0	2:30p	SE
10	65.7	75.1	4:00p	57.6	5:00a	2.3	3.0	0.00	8.3	26.0	11:00a	WNW
11	64.3	76.4	2:00p	53.3	6:00a	3.2	2.5	0.07	7.3	40.0	9:00p	SW
12	64.3	76.3	2:00p	51.0	5:00a	4.1	3.3	0.00	6.0	30.0	3:30p	WNW
13	68.1	79.1	2:00p	54.2	7:30a	1.6	4.7	0.00	8.8	28.0	1:30p	SSW
14	68.0	78.2	3:30p	58.7	6:00a	1.2	4.2	0.00	8.6	33.0	3:30p	SSE
15	66.2	78.7	5:00p	56.0	12:00m	2.2	3.5	0.00	7.3	33.0	7:00p	SSE
16	61.5	71.9	1:30p	53.3	12:00m	4.2	0.6	0.35	8.0	28.0	1:30p	SSE
17	56.0	67.1	3:00p	46.5	11:30p	9.1	0.1	0.09	6.8	34.0	9:30a	SSE
18	54.8	66.1	3:30p	43.8	7:00a	10.3	0.1	0.00	7.9	27.0	1:00p	SSE
19	59.8	71.0	4:30p	47.8	1:30a	6.4	1.1	0.00	16.4	43.0	12:30p	SSE
20	61.4	72.2	4:30p	50.8	4:30a	5.0	1.4	0.00	11.8	32.0	10:00a	SSE
21	60.8	73.5	5:00p	48.3	7:00a	5.9	1.7	0.00	6.4	18.0	8:30a	S
22	61.3	73.7	2:30p	51.9	5:30a	5.5	1.7	0.20	11.0	39.0	6:30p	SE
23	51.3	58.4	4:00p	43.8	10:30a	13.7	0.0	1.23	12.0	36.0	5:30a	SE
24	46.8	55.8	5:00p	39.8	12:00m	18.2	0.0	0.00	9.0	30.0	3:30p	SSE
25	46.5	59.0	3:30p	33.1	6:30a	18.5	0.0	0.00	6.2	22.0	1:00p	SE
26	51.2	64.1	4:00p	40.2	5:00a	13.8	0.0	0.00	4.8	16.0	5:00p	SW
27	54.3	66.3	3:30p	42.5	2:30a	10.7	0.0	0.00	7.0	25.0	2:30p	SE
28	57.8	65.7	3:30p	50.1	7:00a	7.2	0.0	0.00	11.6	36.0	3:30p	SSE
29	53.4	66.2	3:30p	32.5	12:00m	11.7	0.0	0.00	18.8	51.0	3:30p	SSE
30	43.7	58.6	5:30p	27.9	4:00a	21.3	0.0	0.00	7.5	25.0	3:00p	SE
	60.7	82.4	3	27.9	30	194.5	65.1	2.16	8.7	51.0	29	SSE

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 1

Min <= 0.0: 0

Max Rain: 1.23 ON 09/23/07

Days of Rain: 8 (>.01 in) 4 (>.1 in) 1 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration