Iowa Conservation Reserve Enhancement Program (CREP)
2015 Annual Performance Report

Preface

The Iowa Conservation Reserve Enhancement Program (CREP) is a highly targeted, performance-based water quality program focusing on the reduction of nitrate loads to surface waters through the restoration of strategically designed and located wetlands that intercept tile drains from upper-lying cropped lands.

The following narrative and illustrated report details annual and cumulative performance accomplishments including a brief background, executive summary, accomplishments, and monitoring data. Table 2 and Table 3 summarize financial and active site data. Table 4 is a cumulative program summary.

Background:

Approved on August 17, 2001, the Iowa CREP is available in thirty-seven counties in the tile-drained region of North-Central Iowa (Figure 1). Wetland restoration is one of the most promising strategies for reducing nitrate (N) transport to water resources from row-cropped lands, and research conducted at Iowa State University has demonstrated that strategically located and properly sized wetlands remove 40-90% of the nitrate in tile drainage from upper-lying croplands. The effect of wetlands on watershed scale nitrate reduction is largely determined by the watershed's total nitrate load that the wetlands intercept.

Practices eligible are wetland restoration (CP-23) and erosion control structures (CP-7), when needed as part of the wetland establishment.

Federal incentives include:

- 15 annual rental payments of 150% of the weighted average soil rental rate
- 50% cost-share for eligible costs of establishing conservation practices
- Practice Incentive Payment (PIP) up to 40% of the total eligible cost of practice installation.

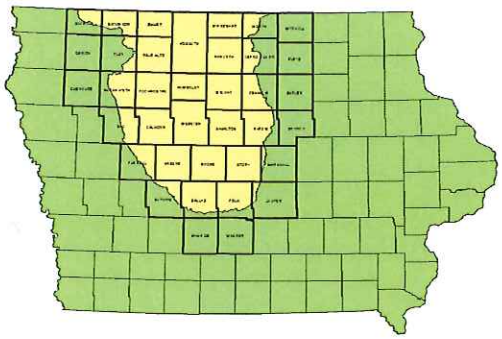

Figure 1. Counties eligible for the Iowa CREP

State incentives include:

- Market based incentive payment for a 30-year or permanent easement (one-time payment)
- 10% cost-share for restoration costs
- Survey, engineering, design, permitting, oversight, public bidding, title services

2015 Executive Summary

Landowner interest in the Iowa Conservation Reserve and Enhancement Program remains strong. However, the 4:1 Federal to State ratio of costs for the Iowa CREP remain unachieved. This has been due to high land values that increase the State cost while Federal land cost remains relatively low. Also affecting the ratio is the CRP landowner $50,000 payment limitations applied to annual CREP payments under the program. Resolutions have been discussed in the past but no solution has been agreed upon.

Farmland Values Survey for 2015 show that land values remain high although this is the first time land values have decreased two years in row since 2000. The average value of Iowa farmland in 2015 was reported as only 12% lower than when land values were at their highest in 2013.

Construction was completed on five (5) wetlands during 2015 bringing the total wetlands restored to 77. These wetlands have a combined total of over 693 acres of wetland pool and 2,357 acres of buffer plantings that protect 96,595 acres of drainage area by removing an estimated more than 78,000 tons of N over their lifetimes at an average cost of $2.92 per acre of protected drainage area.

It is anticipated that six wetlands will be restored in 2016. Three projects have requested CREP contracts with three more expected in the first months of the year. These wetlands have an estimated combined total of 62 acres of wetland pool, 175 acres of buffer plantings protecting an estimated 7,545 acres of drainage area by removing an estimated 7,202 tons of N over their lifetimes.

Of these six new wetland projects, five will be completed through partnership agreements with other State water quality programs, private investors, and conservation organizations. These partners include Water Quality Initiative Program- Boone River Water Quality Project, Ducks Unlimited, The Nature Conservancy, and the Lake Panorama Association.

Over the past 14 years of the CREP program, progress in successful designs and program implementations have been made through continued collaboration with the engineering consultants that design CREP wetlands and scientists at Iowa State University that monitor and evaluate water quality. Design adjustments have increased flood storage capacity, improved wetland longevity, and reduced costs while improving performance and maximizing nutrient removal. There has been varying success for wetland vegetation establishment. Although vegetation has a minimal effect on nutrient reduction, its success greatly enhances the habitat value and aesthetics of the wetlands.

The current field support staff level is at four part time positions through an existing service contract with the Iowa Drainage District Association. The field personnel remain a proven essential component to carry out the processes involved with CREP.

Federal and State Cost Sharing

The current method of valuing State easement payments to producers continues to be an effective means of providing market rate compensation to landowners enrolling in CREP. Without the market rate approach CREP enrollment would be markedly lower. However, the costs of the State easements remain high due to its reflection of the current high land values in Iowa. The nominal 4:1 federal to state ratio of costs for the Iowa CREP has yet to be achieved as the higher State costs still top the relatively smaller CRP payments. Potential options to achieve a ratio closer to 4:1 have been proposed by both FSA and IDALS, but resolution has not proceeded further at this time.

FSA soil rental rates were adjusted in 2015 which may help to alleviate some of the gap. The current soil rental rates were adopted in mid-2015. As of the close of 2015 the CREP Program had not received access to the new rates except from a few County FSA Offices where inquiries had been made to obtain them (Kossuth and Emmet) for immediate needs.

In the fall of 2012, FSA changed how CRP payment limitations were applied to annual CRP payment under the program. The change made annual payments count towards the fiscal year that they are earned, while PIP payment are still applied to the fiscal year that they are paid. Since PIP payment alone (40% of construction costs) often meets or exceeds the $50,000 payment cap, the overlap of PIP and CRP payment in the same federal fiscal year often causes landowners to have their first CRP payment significantly reduced or entirely eliminated.

The State, in order to maintain the integrity of the program with landowners wishing to enroll, has covered this payment cap overage. The payment application change also eliminated the cost savings provided by the State paid summer incentive and increased construction cost on projects (90% paid by FSA).

Beyond these consequences to current and future CREP projects, a critical concern with this change was that in calendar year 2012, there were 12 CREP project enrolled with CRP contact start dates of October 1, 2012 which were scheduled to receive their first CRP annual payments at the start of federal fiscal year 2014 and lacked payment. These projects have now received their annual CRP payments in resolution of a misaction/misinformation claim by landowners that was sent to the national FSA headquarters. IDALS is satisfied that this situation has been resolved and looks forward to continuing to move forward with projects. However, the timing of payments and the State coverage of payment cap overages coupled with the current high land values, continue to cause the higher State costs relative to Federal costs.

Program Cost Justification

According to the 2015 Farmland Value Survey conducted by Iowa State University, the state average for all grades of land was estimated to be $7,633 per acre, a decrease of 3.9% from 2014. This represents the first time that land values have decreased two years in a row since 2000; however, land values are still 14% higher than 2011 and only 12% less than when land values were at their highest in 2013. For medium to high grade land typical in the Des Moines Lobe, the range was $7,352 to $11,229 per acre. Since inception of the CREP program in 2001, the statewide average land value has risen from $1,926/acre to $7,633/acre, representing an increase of 3.96 times the value in 2001. (Wendong Zhang. *2015 Iowa Farmland Value Survey*, Iowa State University Extension.)

Since inception of the new State incentive payments developed with the help of Iowa State University, interest in CREP has remained strong. To date, all of the State funds that have been appropriated for CREP are currently obligated and there is a nearly five year waiting list of applicants for enrollment as soon as new State funds are available. There has also been a continued majority of sites pursuing permanent easements.

The current field support staff level is at four part time positions through an existing service contract with the Iowa Drainage District Association. We were saddened by Lannie Miller's passing in December after his retirement the first of year. The field personnel have proven instrumental in helping to carry out the processes involved with CREP. They are the first contact with landowners and continue to be liaisons between the landowner, CREP agencies, engineering consultants, and contactors throughout the entire process.

Accomplishments

2015 Wetland Restorations

Iowa CREP has restored five (5) wetlands during calendar year 2015. These wetlands have a combined total of 54.7 acres of wetland pool and 165.2 acres of buffer plantings and will protect 5,355 acres of drainage area by removing an estimated 6,155 tons of N over their lifetimes.

Three (3) wetland projects have worked through the process to requested CRP contracts in 2015 with 2016 start dates. It is anticipated that three (3) more will be ready to request contracts in the near future. These new projects are all planned to be bid for construction and completed in 2016. These wetlands have an estimated combined total of 62 acres of wetland pool and an estimated 175 acres of buffer plantings and will protect and estimated 7,545 acres of drainage area by removing an estimated 7,202 tons of N over their lifetimes.

This will bring the total wetlands restored up to 83 wetlands, with another 12 wetlands currently under development. Collectively these represent over 891 acres of wetland surrounded by over 2,800 acres of buffer which will protect over 122,300 watershed acres by removing an estimated 100,300 tons of N over their lifetimes. The estimated annual N removal capacity of these wetlands is over 1,300,000 pounds per year with N removal costs averaging $0.26/lb.

Of the six new wetland projects, five have been moved forward through partnership efforts with other State water quality programs, private investors, and not for profit organizations.

The Water Quality Initiative Program is partnering with the CREP Program on three (3) in Kossuth and Wright Counties in conjunction with the Boone River Water Quality Project. Duck Unlimited has also come forward with partnership funds for the Wright County Project.

The Nature Conservancy contacted IDALS with prospects of obtaining grants to partner with CREP projects within the Middle Cedar River Basin area. They have received funds for one (1) project in Grundy County and have applied for a second in Floyd County. Plans are for them to apply for a third grant for a project in Grundy County.

The Lake Panorama Association is moving forward with funding for a project on the east shoreline of the lake in Guthrie County and planning to move forward soon with a second.

Wetland Seeding and Enhanced Design Plans

Over the first ten year period of CREP we had seen varied success rates for wetland vegetation establishment by passive means. Programmatic limitations that do not authorize wetland seeding as a restoration expense under the FSA CP-23 wetland restoration practice was the driving factor for utilizing this approach. Since the success had been hit and miss IDALS started an effort during 2012 to actively seed all past and present wetlands that had not yet successfully developed emergent wetland vegetation to the extent we would like to see in CREP sites. This was expected to have limited effect on water quality performance but greatly enhance habitat value, and also help address the misperceptions of some groups that the Iowa CREP is building "ponds", which was derived from some sites that had not yet established emergent wetland vegetation throughout their shallow water areas and were mostly open water with submergent vegetation. Several dozen CREP wetlands have now been seeded and vegetation survey work by Iowa State University have been underway in 2014 and 2015 to assess the success of these seedings and make recommendations on future efforts.

The State has also moved forward with new design concepts that will help to provide temporary flood storage benefits while maintaining the high level of water quality performance already in place. IDALS has engaged in a collaborative process with the engineering consultants that design CREP sites and scientists at Iowa State University to further enhance the water quality performance of all CREP sites by identifying and incorporating design features that improve hydraulic efficiency, maximize wetland area, and increase the overall habitat value. Preliminary results from these minor structural modifications to the designs indicate that significantly improved nutrient removal performance is being achieved.

Program Evaluation

Tables 2 through 4 highlight CREP site data, costs, and projected nitrate reductions. Cost per pound for N removed remains below the current cost per pound of fertilizer application to cropland, and considerably below reported cost per pound of N removal by municipal treatment plants. Data from ISU monitoring indicate Iowa CREP wetlands are a highly cost effective method for removing nitrate from tile-drained landscapes thus improving water quality in local streams, drinking water supplies, and the Gulf of Mexico.

Program Outreach

Iowa CREP has been a public awareness and education focus with the presentation and tours at wetland sites with groups of college students, Iowa teachers, farm managers and landowners, Iowa leaders, watershed management, and the general public. Tours during 2015 were in conjunction with Iowa Extension, Iowa Learning Farms, Water Quality Projects, Watershed Management groups, Farm Management groups, Colleges and Universities. A group from Minnesota working to submit a proposal for a Treatment Wetland Strategy for Nutrient Reduction in Minnesota, similar to the Iowa CREP, was hosted by IDALS.

Monitoring and Evaluation

A unique aspect of the Iowa CREP is that nitrate reduction is not simply assumed based on wetland acres enrolled, but is calculated based on the measured performance of CREP wetlands. As an integral part of the Iowa CREP, a representative subset of wetlands is monitored and mass balance analyses performed to document nitrate reduction. By design, the wetlands selected for monitoring span the 0.5% to 2.0% wetland/watershed area ratio range approved for Iowa CREP wetlands. The wetlands also span

a threefold range in average nitrate concentration. The wetlands thus provide a broad spectrum of those factors most affecting wetland performance: hydraulic loading rate, residence time, nitrate concentration, and nitrate loading rate. In addition to documenting wetland performance, ongoing monitoring and research programs will allow continued refinement of modeling and analytical tools used in site selection, design, and management of CREP wetlands.

Summary of 2015 Monitoring

Monitoring activities were conducted at 17 Iowa CREP wetlands and one mitigation wetland (DD15 north) during 2014 (Figure 1).

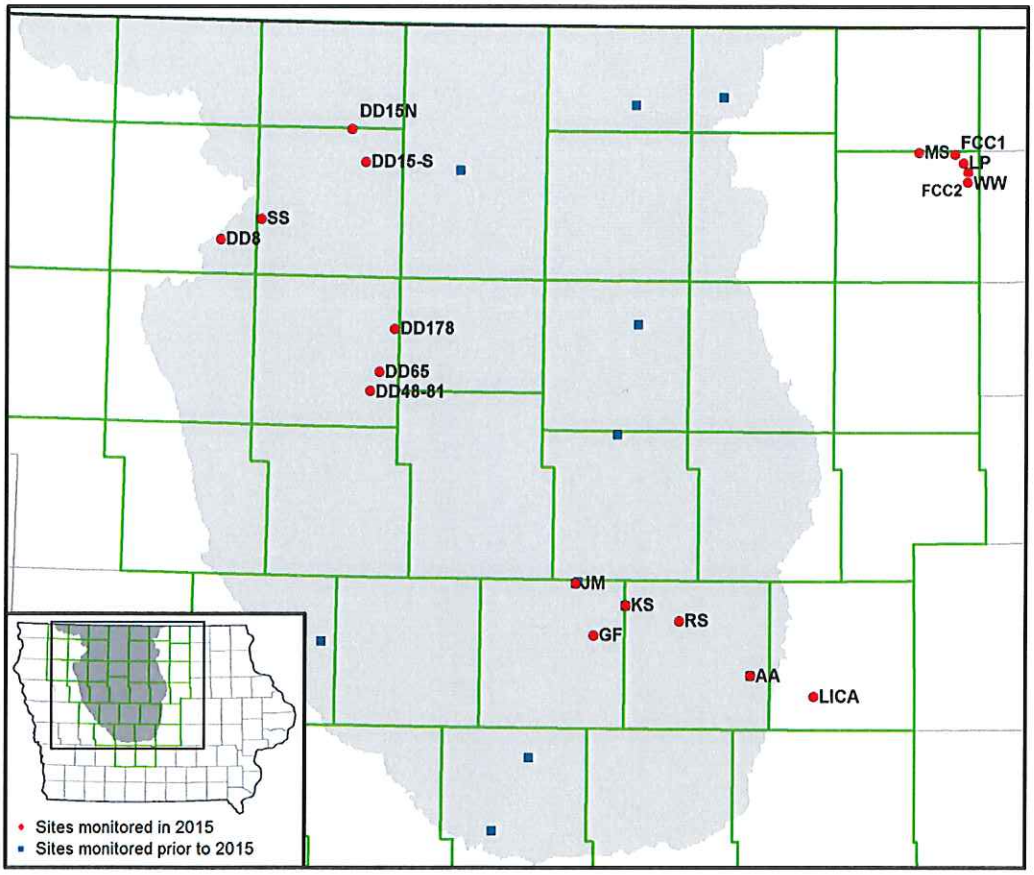

Figure 1. Wetlands monitored during 2015 (red circles, labeled) and wetlands monitored during prior years (blue squares). The shaded area represents the Des Moines Lobe in Iowa.

Wetland monitoring included measurements of wetland inflows, outflows, pool elevations, and water temperature and collection of weekly to biweekly water quality grab samples and daily composite samples. Daily composite samples were collected using automated samplers programmed to collect and composite four subsamples collected at six-hour intervals at wetland inflows and outflows when temperatures were sufficiently above freezing to allow the equipment to function properly. The DD48-81 wetland was drawn down during 2015 for repairs and the outflow from this wetland was not monitored during most of the year, however, both the DD48 and DD81 inflows were monitored for discharge and water quality samples. The DD8, DD15N and DD178 wetlands were drawn down in April for repairs to their outflow structures, and preliminary results suggest this had only a minor impact on

the nitrate removal performance of those wetlands. The outflow from the LICA wetland was briefly altered when the LICA personnel removed the stoplogs on July 11 through about July 13.

Wetland inflow and/or outflow stations were instrumented with submerged area velocity (SAV) Doppler flow meters and stage recorders for continuous measurement of flow velocity and stream depth, respectively. The SAV measurements were combined with cross-sectional channel profiles and stream depth to calculate discharge as the product of water velocity and wetted cross-sectional area. Wetland water levels were monitored continuously using stage recorders in order to calculate pool volume, wetland area, and discharge at outflow structures. The pool discharge equations and SAV based discharge measurements were calibrated using manual velocity-area based discharge measurements collected during 2015 and prior monitoring years. Manual velocity-area discharge measurements were determined using the mid-section method whereby the stream depth is determined at 10 cm intervals across the stream and the water velocity is measured at the midpoint of each interval. Velocity was measured with a hand held Sontek Doppler water velocity probe using the 0.6 depth method where the velocity at 60% of the depth from the surface is taken as the mean velocity for the interval. The product of the interval velocity and area is summed over intervals to give the total discharge.

Patterns in Nitrate Concentrations and Loads

Despite significant variation with respect to nitrate concentration and loading rates, the wetlands display similar seasonal patterns and general relationships to discharge. Historically, inflow nitrate concentrations are variable ranging from low to high during the winter. Spring snow-melt often results in increased flow during late February or March but nitrate concentrations in the melt water and associated surface runoff are typically low to moderate. During 2015, inflow nitrate concentrations were generally high during numerous flow events from April through July, with significant flow occurring into September at some sites (Figure 2). Nitrate concentrations generally decline through July and August. Additionally, nitrate concentration during large summer flow events often declines abruptly with peak flows and is thought to be associated with surface runoff having low nitrate concentration; however, nitrate concentrations often rebound within a few days of these high flow events. These nitrate concentration and flow patterns are consistent with those of CREP wetlands monitored in prior years and represent the likely patterns for future wetlands restored as part of the Iowa CREP. A substantial amount of flow was observed during December 2015 at most monitored sites and was accompanied by generally high nitrate concentrations (Figure 2).

Wetland Performance (Nitrate mass loss and removal efficiency)

Wetland performance is a function of hydraulic loading rate, hydraulic efficiency, nitrate concentration, temperature, and wetland condition. Of these, hydraulic loading rate (HLR) and nitrate concentration are especially important for CREP wetlands. The range in HLR expected for CREP wetlands is significantly greater than would be expected based on just the four fold range in wetland/watershed area ratio approved for the Iowa CREP. In addition to spatial variation in precipitation (average precipitation declines from southeast to northwest across Iowa), there is large annual variation in both precipitation and water yield. The combined effect of these factors results in annual loading rates to CREP wetlands that vary by more than an order of magnitude, and will to a large extent determine nitrate loss rates for individual wetlands.

Mass balance analysis and modeling were used to calculate observed and predicted nitrate removal, respectively, for each monitored wetland. Wetland bathymetry data were used to characterize wetland

volume and area as functions of wetland depth. Wetland bathymetry has been determined by ISU on the basis of wetland construction plans and/or bathymetric surveys. These bathymetric relationships were used in numeric modeling of water budgets and nitrate mass balances to calculate nitrate loss, hydraulic loading, and hydraulic residence time. Wetland water depth and temperatures were recorded at five minute intervals for numerical modeling of nitrate loss.

The monitored wetlands generally performed as expected with respect to nitrate removal efficiency (percent removal) and mass nitrate removal (expressed as kg N ha^{-1} $year^{-1}$). In addition to measured inflow and outflow nitrate concentrations, Figure 2 shows the range of outflow concentrations predicted for these wetlands by mass balance modeling using 2015 water budget, wetland water temperature, and nitrate concentration as model inputs.

Variability in wetland performance is in part due to differences in wetland characteristics and condition and partly due to differences in loading rates and patterns. At a given HLR, differences in wetland condition and in timing of loading can result in significant differences in performance (Figure 3). Mass balance analysis and modeling was also used to examine the long term variability in performance of CREP wetlands including the effects of spatial and temporal variability in temperature and loading patterns. In addition to the calculating the percent mass removal observed for wetlands monitored from 2004 through 2015, the percent nitrate removal expected for CREP wetlands was estimated based on hindcast modeling over the period from 1980 through 2005. The results illustrate reasonably good correspondence between observed and modeled performance and demonstrate that HLR is clearly a major determinant of wetland nitrate removal performance (Figure 3).

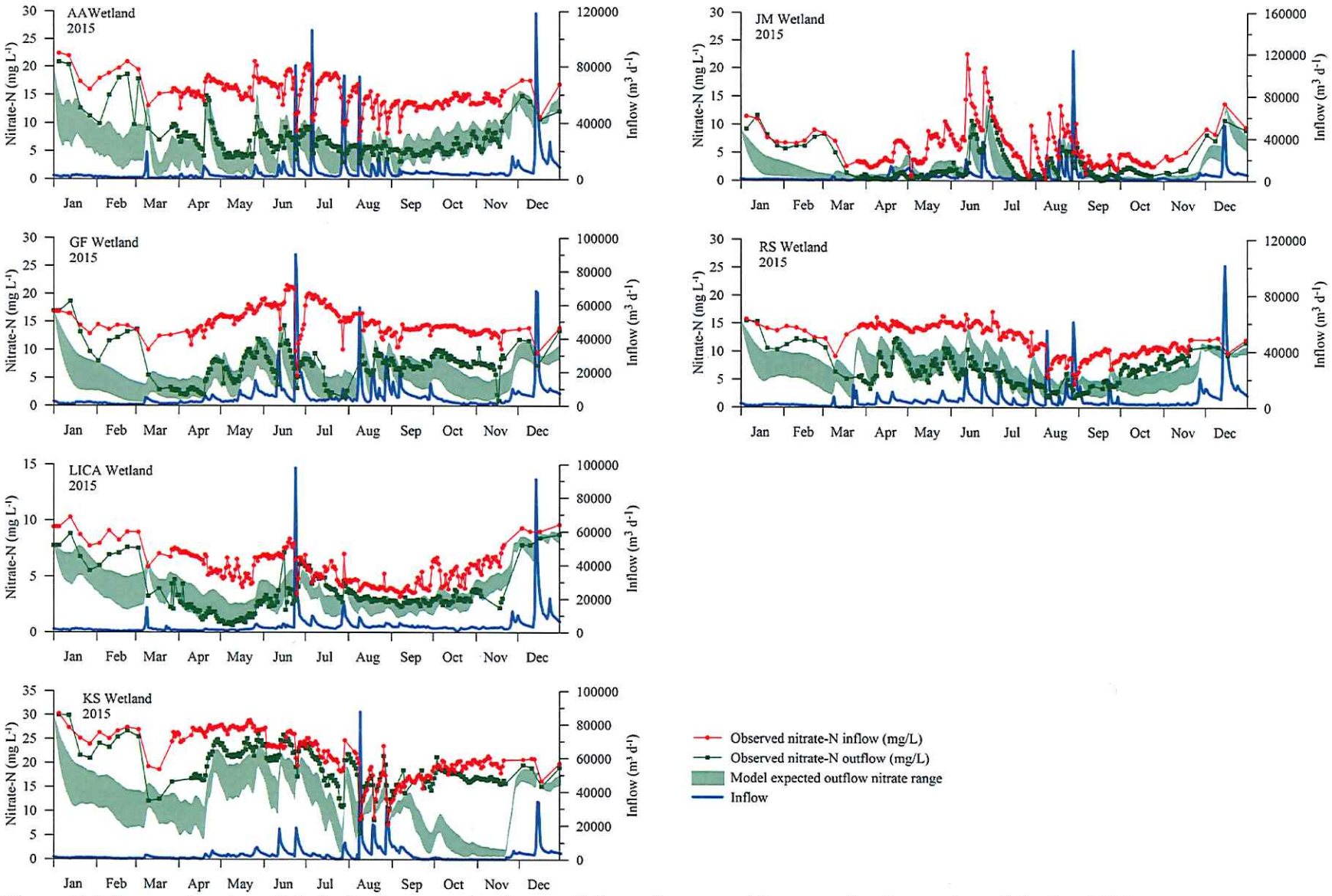

Figure 2. Measured and modeled nitrate concentrations and flows for central Iowa wetlands monitored during 2015.

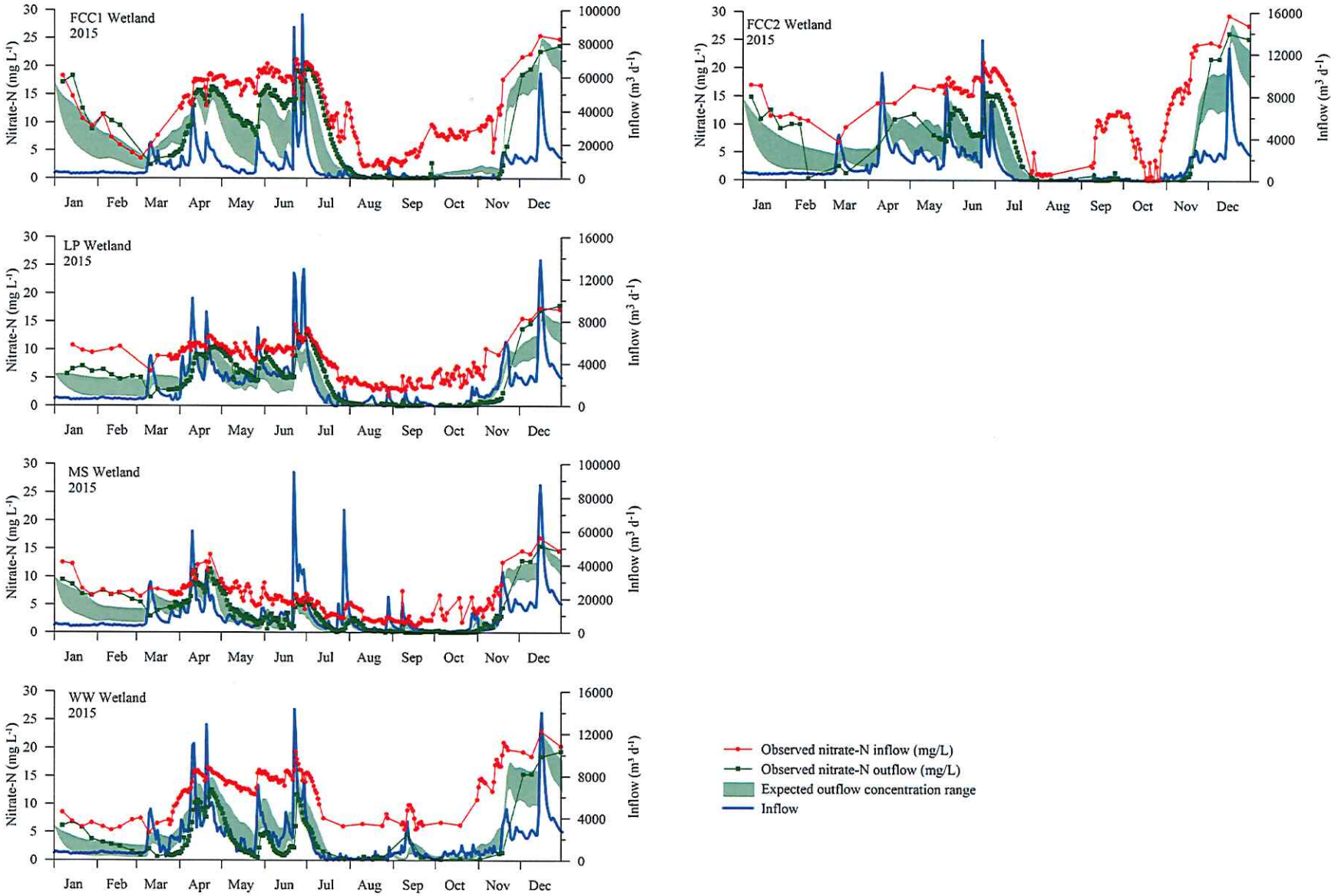

Figure 2. (Continued) Measured and modeled nitrate concentrations and flows for northeast Iowa wetlands monitored during 2015.

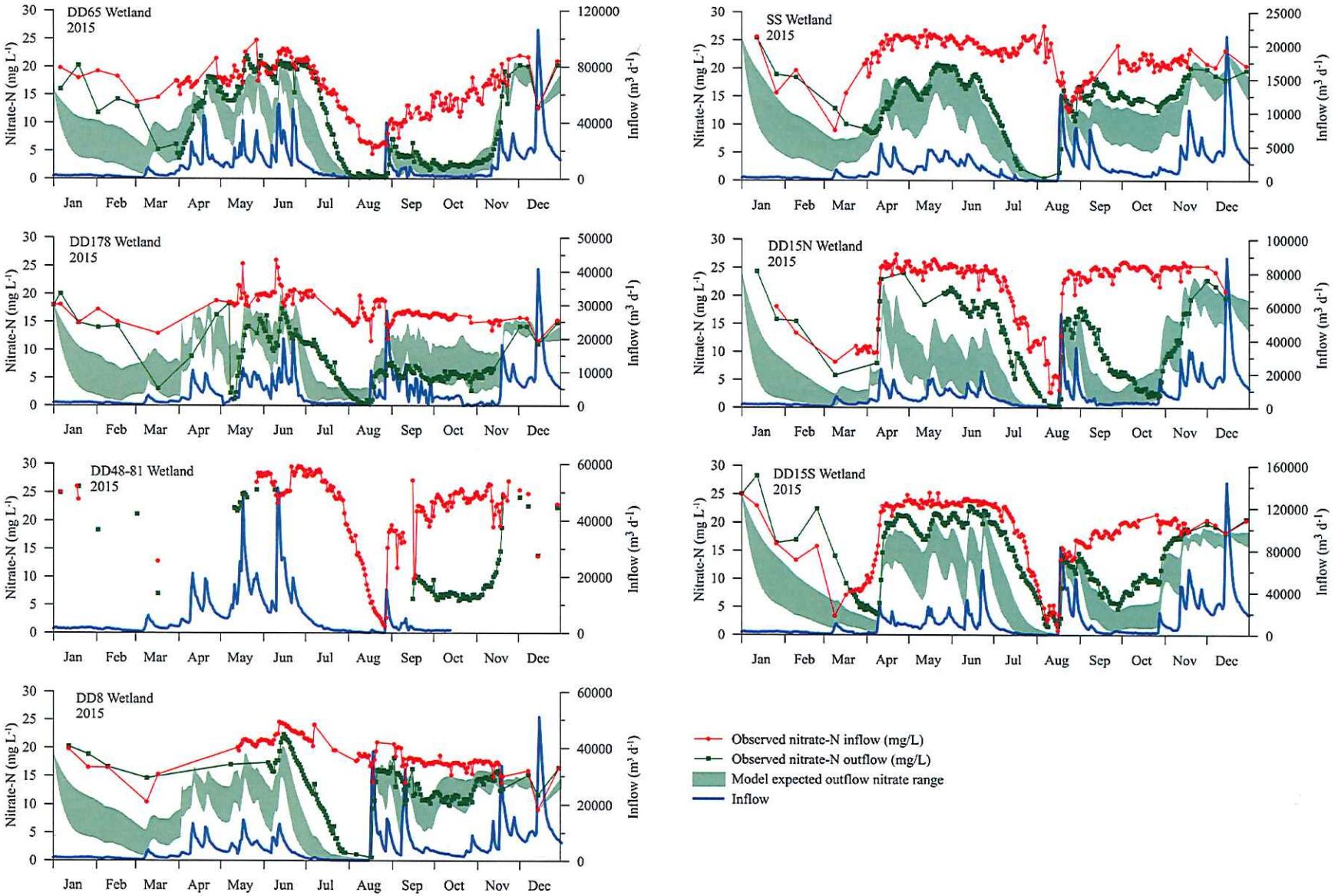

Figure 2. (Continued) Measured and modeled nitrate concentrations and flows for northwest Iowa wetlands monitored during 2015.

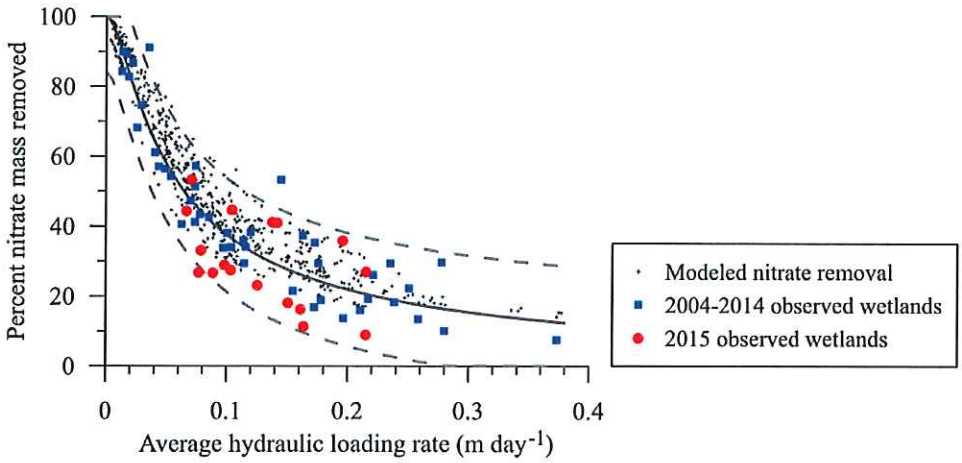

Figure 3. The percent nitrate removal performance for 2015 (red circles) and wetlands monitored during prior years (2004-2014, blue squares). The dashed gray lines indicate the range expected to contain 95% of similar wetlands in Iowa on the basis of the 2004 to 2014 wetlands monitored.

Wetland Vegetation Patterns

From 2011 to 2014 thirty-seven CREP wetlands were seeded with an emergent seed mix consisting of 19 species, six of which are deep water species (30-100 cm), and 13 of which are shallow water species (0-30 cm). To evaluate the success of this seeding effort, vegetation surveys were conducted on 47 CREP wetlands during the 2014 and 2015 field seasons. Among the wetland sites in this survey, 12 had been seeded at construction completion, and 12 had been seeded between 3 and 8 years after construction. The 12 older sites had been flooded after construction, but water was temporarily drawn down for the seeding. The remaining 23 surveyed sites had not been seeded and ranged in age from 3 to 12 years (Table 1).

Table 1. Characteristics of wetlands surveyed including the post construction sequence of seeding and water level management (DD=draw down and FP=full pool), age of wetlands when seeded and surveyed, and the total number of surveys for each wetland type.

Seeding and Water Level Management	Age When Seeded	Age When Surveyed	Number Surveyed
Constructed – DD – Seeded – FP	0 years	2-4 years	12
Constructed – FP – DD – Seeded – FP	3-8 years	5-11 years	12
Constructed – FP (Not seeded)	-	3-12 years	23

The vegetation surveys consisted of transects laid perpendicular to the full pool boundary and extending to the emergent edge/open water interface. Approximately 20 transects were taken per wetland. The spacing between transects depended on the size of the wetland, and the length of each transect depended on the extent of the emergent edge. Percent cover was estimated with a 1x1 meter quadrat every five meters along the transect line. A cover class scale was used to estimate percent cover for each species. Plant species were identified in the quadrants, and any additional species found were also noted. Analyses of these vegetation surveys will be provided in a future report.

Table 2. 2015 Federal Financial Contribution

	County	Project ID	Practice	Contracts	Wetland Acres	Watershed Acres	CRP-1 Acres	CCC Average Rental Rate	CCC Per Contract Cost-Share	CCC Per Contract PIP
2015	Hardin	Har892029C	CP-23	1	8.80	916	28.43	$411.66	N/A [1]	N/A [1]
2015	Wright	Wri932534B	CP-23	3	13.10	1023	54.86	$438.64	N/A [1]	N/A [1]
2016	Guthrie	Gut802019A	CP-23	1	6.20	849	26.50	N/A [1]	N/A [1]	N/A [1]
2016	Emmet	Emm993330B	CP-23	2	5.89	842	20.26	N/A [1]	N/A [1]	N/A [1]
2015	Story	Sto852311A	CP-23	2	5.00	614	10.88	$437.61	N/A [1]	N/A [1]
Totals				**9**	**38.99**	**4244**	**140.93**	**$429.30**	**N/A [1]**	**N/A [1]**
								Average		

2015 State Financial Contribution

County	Project ID	Practice	Easements	Wetland Acres	Watershed Acres	Easement Acres	Number of Easement Payments	Total Easement Payment	Outsourced Technical Assistance [2]
Hardin	Har892029C	CP-23	1	8.80	916	28.40	1	$157,386	$15,057
Wright	Wri932534B	CP-23	3	13.10	1023	54.87	3	N/A [1]	$26,065
Guthrie	Gut802019A	CP-23	1	6.20	849	26.50	0	-	$184
Emmet	Emm993330B	CP-23	2	5.89	842	20.17	2	N/A [1]	$15,826
Story	Sto852311A	CP-23	2	5.00	614	10.88	2	$36,110	$15,847
Multiple	Projects with engineering started - not finished								$156,039
Totals			**9**	**38.99**	**4244**	**140.82**	**8**	**$193,496**	**$229,019**

State Technical Assistance

Staff	**FY 2015** % FTE	**FY 2015** Cost	**Cumulative** Cost
Administration	0.25	$26,125	$533,945
Coordination	0.25	$26,125	$917,432
GIS	0.10	$10,451	$496,259
Engineering	0.50	$60,645	$570,763
Support	0.00	$0	$114,823
Field Specialists	1.50	$94,112	$951,785
Totals	**2.60**	**$217,458**	**$3,370,880**
NRCS Engineering/Service Contract		$0	$223,425
Outsourced Technical Assistance [2]		$266,838	$3,549,914
Monitoring and Evaluation [3]		$351,588	$3,490,216
Total State Technical Assistance		**$835,884**	**$10,634,435**

[1] N/A - Figures not available at the time this report was prepared

[2] Includes engineering, survey, design, title search, public bidding announcement, recording fees, etc.

[3] Monitoring, evaluation and research support provided under contract with Iowa State University

Table 3. Sites under survey/engineering design phase (not completed)

Project ID	Wetland (ac)	Estimated Easement (ac)	Watershed (ac)
Gut803020C	7.1	24.9	500
Gre842916D	5.1	20.3	743
Boo832612D	21.0	73.5	3,246
Sto822120C	14.4	46.1	1,922
Gre853229C	4.3	14.2	818
Fra901902C	3.4	10.5	581
Gut813207B	8.4	25.5	942
Flo961529D	5.9	16.6	688
Gru871810B	5.6	10.5	581
Car843325A	16.5	49.9	2,576
Gru891604AC	31.0	74.2	2,720
Car853312A	3.7	14.4	628
Kos952703D	12.9	47.8	1,775
Kos952719C	20.6	79.0	2,475
Gre842915B	20.4	46.6	2,294
Totals	**180.3**	**554.0**	**22,489**

Table 4. Cummulative Program Summary (Estimated Costs in RED)

Project ID	Wetland Area (acres)	Basin %	Surveyed Easement (acres)	CRP-1 Contract Area (Acres)	Drainage Area (acres)	Soil Rental Rate ($/acre)	SCI Payment ($)	State Easement Payment ($/acre)	CRP Contract Payment ($/acre/yr)	CRP Yearly Payment ($/yr)	Total Design Cost	Total Easement Cost	Total Construction Cost	Total CRP Payments Over 15 Years	Total Project Cost	Cost/acre treated ($/acre)	Cost/acre treated lifetime ($/acre/150 yrs)	Cost/lb N removed lifetime ($/lb/150 yrs)	N Tons Removed Lifetime (150 yrs)	10% Construction Cost	State Construction Cost	FSA Construction Cost	Total State Costs	Total FSA Costs
Dal812619C	15.00	0.76	57.60	57.50	1974	$163.52	None	$650.00	$224.98	$12,936.35	$4,502.14	$37,440.00	$88,363.10	$194,045.25	$324,350.49	$164.31	$1.10	$0.10	1688	$8,836.31	$8,762.41	$79,600.69	$50,704.55	$273,645.94
Cal873427D	3.41	0.66	20.00	20.00	514	$153.57	None	$325.00	$221.96	$4,439.20	$5,162.96	$6,500.00	$37,784.68	$66,588.00	$116,035.64	$225.75	$1.51	$0.15	384	$3,778.47	$3,778.68	$34,006.00	$15,441.64	$100,594.00
Kos962903D	6.00	1.11	26.89	26.89	539	$157.41	None	$325.00	$214.67	$5,772.48	$5,337.66	$8,739.25	$49,352.90	$86,587.14	$150,016.95	$278.32	$1.86	$0.11	675	$4,935.29	$4,885.98	$44,466.92	$18,962.89	$131,054.06
Boo852602B	7.30	0.68	34.48	34.48	1081	$144.13	None	$650.00	$197.72	$6,817.39	$3,863.99	$22,412.00	$52,816.40	$102,260.78	$181,353.17	$167.76	$1.12	$0.11	821	$5,281.64	$5,040.80	$47,775.60	$31,316.79	$150,036.38
Sto852430B	3.70	0.58	19.05	19.05	634	$164.26	None	$325.00	$237.98	$4,533.52	$3,561.17	$6,191.25	$45,691.94	$68,002.79	$123,447.15	$194.71	$1.30	$0.15	416	$4,569.19	$4,568.94	$41,123.00	$14,321.36	$109,125.79
Mad752802B	7.00	1.23	32.09	32.09	569	$162.97	None	$325.00	$160.51	$5,150.77	$3,887.01	$10,429.25	$75,730.61	$77,261.49	$167,308.36	$294.04	$1.96	$0.11	788	$7,573.06	$7,452.61	$68,278.00	$21,768.87	$145,539.49
Dal792828C	4.36	0.60	19.27	19.27	727	$145.75	None	$650.00	$192.59	$3,711.21	$25,387.52	$12,525.50	$71,356.01	$55,668.14	$164,937.17	$226.87	$1.51	$0.17	491	$7,135.60	$7,135.60	$64,220.41	$45,048.62	$119,888.55
Dal812728C	8.00	0.56	42.66	42.66	1430	$165.57	None	$650.00	$229.85	$9,805.40	$25,235.74	$27,729.00	$69,973.49	$147,081.02	$270,019.25	$188.82	$1.26	$0.15	900	$6,997.35	$6,997.17	$62,976.32	$59,961.91	$210,057.34
Emm983322C	9.10	0.69	50.10	50.10	1328	$124.54	None	$325.00	$156.98	$7,864.70	$39,182.57	$16,282.50	$77,456.24	$117,970.47	$250,891.78	$188.92	$1.26	$0.12	1024	$7,745.62	$7,745.74	$69,710.50	$63,210.81	$187,680.97
Win982409D	3.50	0.59	16.01	16.01	590	$151.81	None	$325.00	$214.71	$3,437.51	$24,479.21	$5,203.25	$84,155.36	$51,562.61	$165,400.43	$280.34	$1.87	$0.21	394	$8,415.54	$8,415.22	$75,740.14	$38,097.68	$127,302.75
Boo822729D	9.23	0.60	61.60	61.60	1530	$163.87	None	$325.00	$224.34	$13,819.34	$22,130.84	$20,020.00	$128,743.31	$207,290.16	$378,184.31	$247.18	$1.65	$0.18	1038	$12,874.33	$12,874.31	$115,869.00	$55,025.15	$323,159.16
Ham892406C	15.13	0.52	55.95	55.95	2904	$158.32	None	$325.00	$214.43	$11,997.36	$26,911.31	$18,183.75	$125,993.25	$179,960.38	$351,048.69	$120.88	$0.81	$0.10	1702	$12,599.33	$12,600.19	$113,393.06	$57,695.25	$293,353.44
Emm983229C	11.70	0.51	56.75	56.80	2300	$147.25	$6,644.71	$325.00	$208.52	$11,843.94	$54,034.38	$18,443.75	$233,854.69	$177,659.04	$490,636.57	$213.32	$1.42	$0.19	1316	$23,385.47	$37,227.69	$196,627.00	$116,350.53	$374,286.04
Emm983327B	8.78	0.82	44.40	44.40	1070	$128.64	$5,531.35	$325.00	$191.87	$8,519.03	$30,789.60	$14,430.00	$136,126.45	$127,785.42	$314,662.82	$294.08	$1.96	$0.16	988	$13,612.65	$31,581.45	$104,545.00	$82,332.40	$232,330.42
Dic983729C	18.25	0.67	66.21	66.21	2739	$147.55	$8,609.95	$650.00	$200.06	$13,245.97	$31,172.04	$43,036.50	$176,002.62	$198,689.59	$457,510.70	$167.04	$1.11	$0.11	2053	$17,600.26	$40,293.62	$135,709.00	$123,112.11	$334,398.59
Cal873421C	8.30	0.61	37.27	37.27	1362	$151.90	None	$325.00	$217.47	$8,105.11	$56,156.87	$12,112.75	$138,863.54	$121,576.60	$328,709.76	$241.34	$1.61	$0.18	934	$13,886.35	$13,887.54	$124,976.00	$82,157.16	$246,552.60
Boo852603D	13.90	1.41	66.05	66.05	989	$152.73	$9,509.22	$325.00	$220.95	$14,593.75	$17,861.19	$21,466.25	$46,805.18	$218,906.21	$314,548.05	$318.05	$2.12	$0.10	1564	$4,680.52	$6,687.18	$40,118.00	$55,523.84	$259,024.21
Boo832824B	18.44	0.50	70.30	70.30	3653	$165.07	$10,901.57	$325.00	$237.58	$16,701.87	$22,173.72	$22,850.75	$191,767.24	$250,528.11	$498,221.39	$136.39	$0.91	$0.12	2075	$19,176.72	$50,848.24	$140,919.00	$106,774.26	$391,447.11
Mit981528A	12.68	1.61	69.18	69.18	787	$140.05	$8,685.55	$325.00	$193.33	$13,374.57	$33,384.98	$22,483.50	$128,850.98	$200,618.54	$394,023.55	$500.67	$3.34	$0.14	1427	$12,885.10	$14,425.98	$114,425.00	$78,980.01	$315,043.54
Cer971931C	3.75	0.51	18.40	18.40	736	$173.71	$2,721.73	$325.00	$226.88	$4,174.59	$25,801.42	$5,980.00	$140,083.84	$62,618.88	$237,205.87	$322.29	$2.15	$0.28	422	$14,008.38	$29,108.92	$110,974.92	$63,612.07	$173,593.80
Wor1002115C	20.70	0.87	90.00	90.00	2386	$138.80	None	$650.00	$212.14	$19,093.00	$28,622.98	$60,078.08	$139,945.49	$286,395.00	$515,041.55	$215.86	$1.44	$0.11	2329	$13,994.55	$39,065.49	$100,880.00	$127,766.55	$387,275.00
Poc933406C	12.58	0.52	61.39	61.39	2431	$151.78	$2,349.70	$325.00	$229.65	$14,098.21	$26,914.60	$19,951.75	$165,649.81	$211,473.20	$426,339.06	$175.38	$1.17	$0.15	1415	$16,564.98	$43,371.81	$122,278.00	$92,587.86	$333,751.20
Gre853026B	3.40	0.55	22.10	22.10	617	$157.78	$404.33	$325.00	$219.54	$4,851.83	$22,534.22	$7,182.50	$80,183.75	$72,777.51	$183,082.31	$296.73	$1.98	$0.24	383	$8,018.38	$8,017.75	$72,166.00	$38,138.80	$144,943.51
Sto832121A	10.45	0.96	45.40	45.40	1085	$162.60	$7,394.83	$325.00	$248.65	$11,288.71	$44,194.26	$14,735.50	$139,799.58	$169,330.65	$375,455.89	$346.04	$2.31	$0.16	1176	$13,979.96	$13,979.96	$125,820.69	$80,304.55	$295,151.34
Boo852603C	4.34	0.52	34.40	34.40	842	$138.18	$4,572.63	$650.00	$203.63	$7,004.87	$21,992.79	$22,334.00	$78,257.60	$105,073.08	$232,230.10	$275.81	$1.84	$0.24	488	$7,825.76	$7,825.76	$70,431.84	$56,725.18	$175,504.92
Flo961502D	5.66	1.03	33.40	33.40	548	$142.96	$4,308.51	$650.00	$197.38	$6,592.49	$25,757.09	$21,723.00	$68,772.15	$98,887.38	$219,448.13	$400.45	$2.67	$0.17	637	$6,877.22	$6,877.15	$61,895.00	$58,665.75	$160,782.38
Cer962220C	14.80	2.09	34.80	34.80	708	$149.09	$5,295.25	$325.00	$232.37	$8,086.48	$33,200.04	$11,303.50	$122,491.86	$121,297.14	$293,587.79	$414.67	$2.76	$0.09	1665	$12,249.19	$7,556.71	$68,020.00	$57,355.50	$189,317.14
Kos962802C	6.51	0.79	32.26	32.30	828	$143.14	$4,617.70	$2,741.57	$218.71	$7,064.33	$30,001.55	$88,443.06	$107,648.01	$105,965.00	$336,675.32	$406.61	$2.71	$0.23	732	$10,764.80	$10,765.01	$96,883.00	$133,827.32	$202,848.00
Kos953011B	6.49	0.62	22.29	22.30	1043	$158.93	$3,542.55	$2,792.18	$229.86	$5,125.88	$28,220.50	$62,237.69	$179,235.35	$76,888.17	$350,124.26	$335.69	$2.24	$0.24	730	$17,923.54	$41,623.35	$137,612.00	$135,624.09	$214,500.17
Gru871718B	5.60	0.68	30.36	30.50	821	$174.44	$5,780.70	$1,220.70	$263.66	$8,041.63	$35,176.10	$37,060.46	$102,032.51	$120,624.45	$300,674.22	$366.05	$2.44	$0.24	630	$10,203.25	$10,203.51	$91,829.00	$88,220.77	$212,453.45
Flo961502B	6.78	1.05	29.82	29.80	649	$146.00	$4,592.28	$2,905.53	$221.00	$6,585.80	$28,652.41	$86,642.90	$91,690.52	$98,787.00	$310,365.11	$478.59	$3.19	$0.20	763	$9,169.05	$9,169.52	$82,521.00	$129,057.11	$181,308.00
Flo941526D	5.58	0.83	25.84	25.80	672	$144.18	$3,926.64	$2,934.96	$218.27	$5,631.37	$30,752.16	$75,839.36	$124,808.04	$84,470.49	$319,796.69	$475.82	$3.17	$0.25	628	$12,480.80	$12,481.04	$112,327.00	$122,999.20	$196,797.49
Gut813028D	4.60	0.83	22.18	22.20	551	$193.67	$4,295.63	$2,891.71	$265.90	$5,903.00	$41,558.44	$64,138.08	$202,663.51	$88,545.00	$401,198.66	$728.13	$4.85	$0.39	518	$20,266.35	$33,612.10	$170,452.66	$143,602.25	$258,997.66
Wor1002215C	6.05	0.85	30.25	30.30	709	$142.14	$543.42	$2,979.12	$215.21	$6,521.00	$27,609.24	$90,118.38	$126,799.11	$97,815.00	$342,885.15	$483.62	$3.22	$0.25	681	$12,679.91	$24,770.11	$102,029.00	$143,041.15	$199,844.00
Wri922423A	3.35	0.60	15.00	15.00	559	$159.85	$302.21	$2,713.96	$241.77	$3,627.00	$31,456.48	$40,709.40	$131,298.51	$54,405.00	$258,171.60	$462.09	$3.08	$0.34	377	$13,129.85	$29,807.51	$101,491.00	$102,275.60	$155,896.00
Mar821905C	4.27	0.50	19.92	19.90	847	$165.80	$4,954.10	$963.23	$250.70	$4,989.00	$44,605.83	$19,160.85	$128,236.80	$74,835.00	$271,792.58	$320.89	$2.14	$0.28	480	$12,823.68	$14,118.80	$114,118.00	$82,839.58	$188,953.00
Flo971521B	14.63	0.54	67.25	67.20	2692	$151.89	$15,322.24	$2,322.74	$229.83	$15,444.58	$30,620.47	$156,204.27	$134,773.80	$231,668.70	$568,589.48	$211.21	$1.41	$0.17	1646	$13,477.38	$27,046.80	$107,727.00	$229,193.78	$339,395.70
Cla973604DB	5.37	0.55	30.33	30.30	982	$171.25	$7,790.87	$2,638.03	$258.87	$7,844.00	$32,896.89	$80,011.45	$174,232.76	$117,660.00	$412,591.97	$420.15	$2.80	$0.34	604	$17,423.28	$37,116.76	$137,116.00	$157,815.97	$254,776.00
Gre833136B	8.00	0.51	52.51	52.51	1559	$170.94	$13,464.08	$3,242.90	$258.41	$13,569.11	$24,285.62	$170,284.68	$163,956.62	$203,536.65	$575,527.65	$369.16	$2.46	$0.32	900	$16,395.66	$16,396.62	$147,560.00	$224,431.00	$351,096.65
Dic983735CD	3.03	0.50	17.61	17.60	605	$126.63	$3,345.02	$1,634.97	$191.95	$3,378.32	$25,051.60	$28,791.82	$122,324.00	$50,674.80	$230,187.24	$380.47	$2.54	$0.34	341	$12,232.40	$12,232.40	$110,091.60	$69,420.84	$160,766.40
Web893018B	4.00	0.58	27.47	27.50	690	$181.16	$7,472.93	$1,214.69	$273.74	$7,537.00	$24,385.21	$33,367.54	$87,131.20	$113,055.00	$265,411.88	$384.65	$2.56	$0.29	450	$8,713.12	$8,713.20	$78,418.00	$73,938.88	$191,473.00
Kos952829C	3.28	0.51	28.38	28.40	648	$149.47	$6,363.12	$2,459.76	$226.20	$6,424.00	$53,267.42	$69,807.86	$213,344.05	$96,360.00	$439,142.45	$677.69	$4.52	$0.60	369	$21,334.41	$58,087.05	$155,257.00	$187,525.45	$251,617.00
BV933512D	6.35	1.27	28.32	28.30	500	$171.22	$7,273.43	$3,642.12	$258.83	$7,325.00	$43,354.10	$103,144.84	$134,859.16	$109,875.00	$398,506.53	$797.01	$5.31	$0.28	714	$13,485.92	$19,850.03	$115,009.13	$173,622.40	$224,884.13
Pal973205A	5.57	1.02	24.44	24.40	548	$189.78	$7,536.33	$3,279.59	$284.67	$6,946.00	$22,884.87	$80,153.18	$171,149.07	$104,190.00	$385,913.45	$704.22	$4.69	$0.31	627	$17,114.91	$52,339.07	$118,810.00	$162,913.45	$223,000.00
Pal953418D	5.45	1.08	26.20	26.20	505	$182.33	$7,165.44	$3,386.04	$275.49	$7,218.00	$24,468.82	$88,714.25	$130,559.22	$108,270.00	$359,177.73	$711.24	$4.74	$0.29	613	$13,055.92	$22,497.22	$108,062.00	$142,845.73	$216,332.00
Dal812703C	2.74	0.52	15.56	15.50	528	$154.97	None	$3,864.09	$232.46	$3,603.00	$41,480.71	$60,125.24	$107,202.25	$54,045.00	$262,853.20	$497.83	$3.32	$0.43	308	$10,720.23	$24,398.22	$82,804.03	$126,004.17	$136,849.03
Poc913121A	15.71	0.64	76.16	76.20	2472	$161.77	None	$3,727.56	$242.66	$18,490.69	$43,167.17	$283,890.97	$174,716.87	$277,360.35	$779,135.36	$315.18	$2.10	$0.22	1767	$17,471.69	$52,384.87	$122,332.00	$379,443.01	$399,692.35
BV923734D	17.75	0.54	83.52	83.50	3314	$180.07	$22,558.75	$985.48	$270.10	$22,553.35	$38,588.20	$82,307.29	$197,144.33	$336,300.25	$678,898.82	$204.86	$1.37	$0.17	1997	$19,714.43	$52,799.33	$144,345.00	$196,253.57	$482,645.25
Car853415B	3.50	0.50	18.83	18.80	707	$193.18	$5,456.37	$2,385.82	$289.77	$5,449.00	$38,727.37	$44,925.00	$248,637.65	$81,720.00	$419,466.39	$593.30	$3.96	$0.53	394	$24,863.77	$30,149.65	$218,488.00	$119,258.39	$300,208.00
Sac873729B	9.40	0.70	47.64	47.60	1340	$218.22	None	$1,975.42	$327.33	$15,581.00	$32,285.18	$94,109.01	$128,671.38	$233,715.00	$488,780.57	$364.76	$2.43	$0.23	1058	$12,867.14	$14,335.38	$114,336.00	$140,729.57	$348,051.00
Mad772718B	5.20	0.70	17.44	17.40	745	$211.14	None	$0.00	$316.71	$5,511.00	$42,025.40	$1.00	$154,789.58	$82,665.00	$279,480.98	$375.14	$2.50	$0.24	585	$15,478.96	$27,394.58	$127,395.00	$69,420.98	$210,060.00
Fra931907C	13.49	0.70	79.53	79.50	1941	$179.76	$21,445.15	$2,777.72	$269.63	$21,435.92	$41,081.35	$220,912.25	$251,037.81	$321,538.80	$856,015.36	$441.06	$2.94	$0.28	1518	$25,103.78	$30,534.57	$220,503.24	$313,973.32	$542,042.04
Cer972025CD	8.81	0.51	47.44	47.40	1734	$185.09	$13,171.24	$1,083.68	$277.64	$13,160.24	$45,270.91	$51,409.88	$200,035.14	$197,403.60	$507,290.77	$292.56	$1.95	$0.26	991	$20,003.51	$46,017.14	$154,018.00	$155,869.17	$351,421.60
Dal802632C	5.65	0.47	25.73	25.70	1205	$183.11	$7,067.26	$4,586.95	$274.67	$7,059.00	$39,966.80	$118,022.22	$167,261.88	$105,885.00	$438,203.16	$363.65	$2.42	$0.34	636	$16,726.19	$38,251.64	$129,010.04	$203,307.92	$234,895.04

Table 4. Cummulative Program Summary (Estimated Costs in RED)

Project ID	Wetland Area (acres)	Basin %	Surveyed Easement (acres)	CRP-1 Contract Area (Acres)	Drainage Area (acres)	Soil Rental Rate ($/acre)	SCI Payment ($)	State Easement Payment ($/acre)	CRP Contract Payment ($/acre/yr)	CRP Yearly Payment ($/yr)	Total Design Cost	Total Easement Cost	Total Construction Cost	Total CRP Payments Over 15 Years	Total Project Cost	Cost/acre treated ($/acre)	Cost/acre treated lifetime ($/acre/150 yrs)	Cost/lb N removed lifetime ($/lb/150 yrs)	N Tons Removed Lifetime (150 yrs)	10% Construction Cost	State Construction Cost	FSA Construction Cost	Total State Costs	Total FSA Costs
Cla963720D	12.60	0.54	57.60	57.60	2337	$200.00	$17,280.00	$7,939.01	$300.00	$17,280.00	$28,531.13	$457,286.98	$152,532.00	$259,200.00	$914,830.11	$391.45	$2.61	$0.32	1418	$15,253.20	$26,266.00	$126,266.00	$529,364.11	$385,466.00
Sto842303B	7.54	0.53	35.67	35.70	1425	$199.12	$10,652.89	$7,585.23	$298.68	$10,663.00	$47,005.75	$270,565.11	$220,961.82	$159,945.00	$709,130.57	$497.64	$3.32	$0.42	848	$22,096.18	$53,933.82	$167,028.00	$382,157.57	$326,973.00
Poc923113B	7.38	0.76	35.81	35.80	975	$194.72	$10,459.38	$8,025.54	$292.08	$10,456.00	$54,319.06	$287,394.59	$160,599.54	$156,840.00	$669,612.57	$686.78	$4.58	$0.40	830	$16,059.95	$36,857.54	$123,742.00	$389,030.57	$280,582.00
Boo842518D	13.37	1.19	36.48	36.50	1120	$189.79	$10,384.55	$7,738.06	$284.68	$10,391.00	$47,834.30	$282,284.52	$208,528.87	$155,865.00	$704,897.24	$629.37	$4.20	$0.23	1504	$20,852.89	$50,264.87	$158,264.00	$390,768.24	$314,129.00
Web883022B	3.02	0.53	12.06	12.10	570	$208.70	$3,775.38	$7,427.90	$313.05	$3,788.00	$37,893.25	$89,580.47	$124,247.65	$56,820.00	$312,316.75	$547.92	$3.65	$0.46	340	$12,424.77	$12,424.65	$111,823.00	$143,673.75	$168,643.00
Flo971621B	24.58	0.63	76.89	55.40	3895	$190.37	$15,805.75	$4,951.54	$285.56	$15,820.00	$50,913.86	$380,723.87	$200,671.01	$237,300.00	$885,414.49	$227.32	$1.52	$0.16	2765	$20,067.10	$50,335.01	$150,336.00	$497,778.49	$387,636.00
Cla943506C	9.57	0.78	31.53	31.50	1228	$177.74	$8,406.21	$8,303.84	$266.61	$8,398.00	$44,481.61	$261,820.08	$254,901.88	$125,970.00	$695,579.78	$566.43	$3.78	$0.32	1077	$25,490.19	$77,450.88	$177,451.00	$392,158.78	$303,421.00
Poc903105B	11.53	0.59	48.13	48.20	1969	$197.99	$14,294.61	$7,971.79	$296.99	$14,315.00	$44,759.79	$383,682.25	$278,382.77	$214,725.00	$935,844.42	$475.29	$3.17	$0.36	1297	$27,838.28	$91,944.77	$186,388.00	$534,681.42	$401,113.00
Flo971527D	5.54	0.87	22.78	22.80	640	$191.93	None	$6,853.30	$287.89	$6,564.00	$42,144.00	$156,118.12	$124,083.80	$98,460.00	$420,805.92	$657.51	$4.38	$0.34	623	$12,408.38	$12,408.80	$111,675.00	$210,670.92	$210,135.00
Flo971736C	11.01	1.14	48.07	48.00	966	$188.97	None	$6,901.43	$283.46	$13,606.00	$44,832.00	$331,751.33	$102,993.54	$204,090.00	$683,666.87	$707.73	$4.72	$0.28	1239	$10,299.35	$11,119.54	$91,874.00	$387,702.87	$295,964.00
Han972326A	6.40	0.84	35.39	35.40	758	$168.00	None	$5,050.38	$252.00	$8,920.80	$36,373.00	$178,732.95	$155,869.40	$133,812.00	$504,787.35	$665.95	$4.44	$0.35	720	$15,586.94	$15,586.40	$140,283.00	$230,692.35	$274,095.00
Pal973236A	25.69	0.65	54.95	55.00	3970	$193.12	None	$8,051.77	$289.68	$15,932.00	$51,289.00	$442,444.76	$265,308.65	$238,980.00	$998,022.41	$251.39	$1.68	$0.17	2890	$26,530.87	$51,970.00	$213,338.65	$545,703.76	$452,318.65
LICA 2	7.50	0.77	NA	NA	980	NA	None	None	None	None	$22,940.34	None	$0.00	None	$22,940.34	$23.41	$0.16	$0.01	844	$0.00	$0.00	$0.00	$22,940.34	$0.00
Flo961527B	6.52	1.51	39.24	39.20	432	$253.38	None	$1,300.68	$380.07	$14,899.00	$40,078.00	$51,038.72	$174,370.00	$223,485.00	$488,971.72	$1,131.88	$7.55	$0.33	734	$17,437.00	$53,390.00	$120,980.00	$144,506.72	$344,465.00
Gru871703B	4.32	0.61	20.66	20.60	714	$304.53	None	$7,468.05	$456.80	$9,410.00	$45,281.00	$154,290.00	$167,643.00	$141,150.00	$508,364.00	$711.99	$4.75	$0.52	486	$16,764.30	$16,766.00	$150,877.00	$216,337.00	$292,027.00
Har892036A	4.30	0.85	19.87	19.90	507	$296.61	None	$7,597.43	$444.92	$8,854.00	$44,501.00	$150,960.93	$217,392.00	$132,810.00	$545,663.93	$1,076.26	$7.18	$0.56	484	$21,739.20	$68,696.00	$148,696.00	$264,157.93	$281,506.00
Sac863622D	5.79	0.90	28.57	28.60	646	$284.50	None	$4,570.65	$426.75	$12,205.00	$40,125.00	$130,583.56	$211,516.60	$183,075.00	$565,300.16	$875.08	$5.83	$0.43	651	$21,151.66	$20,255.45	$178,280.65	$190,964.01	$361,355.65
Dal802627D	25.40	0.96	98.85	98.80	2641	$272.05	None	$8,000.08	$408.08	$40,318.00	$41,458.00	$790,807.91	$427,032.55	$604,770.00	$1,864,068.46	$705.82	$4.71	$0.33	2858	$42,703.26	$183,036.27	$243,996.28	$1,015,302.18	$848,766.28
Har892029C	8.80	0.96	28.40	28.43	916	$274.44	None	$5,439.69	$411.66	$11,703.49	$42,104.00	$157,385.75	$257,751.50	$175,552.41	$632,793.66	$690.82	$4.61	$0.32	990	$25,775.15	$51,550.30	$206,201.20	$251,040.05	$381,753.61
Mit981810C	4.37	0.52	35.84	35.84	843	$272.55	None	$3,564.93	$408.82	$14,652.11	$36,788.00	$127,767.00	$159,520.17	$219,781.63	$543,856.80	$645.14	$4.30	$0.55	492	$15,952.02	$31,904.03	$127,616.14	$196,459.03	$347,397.77
Flo961819A	18.56	0.98	110.51	110.51	1888	$262.11	None	$6,149.25	$393.16	$43,448.11	$51,062.00	$679,554.16	$321,855.00	$651,721.67	$1,704,192.83	$902.64	$6.02	$0.41	2088	$32,185.50	$64,371.00	$257,484.00	$794,987.16	$909,205.67
Flo961822D	12.40	1.13	34.27	34.27	1094	$273.07	None	$6,245.83	$409.60	$14,036.99	$40,393.00	$214,044.52	$324,973.50	$210,554.88	$789,965.90	$722.09	$4.81	$0.28	1395	$32,497.35	$64,994.70	$259,978.80	$319,432.22	$470,533.68
Sto852311A	5.00	0.81	10.88	10.88	614	$291.74	None	$3,318.91	$437.61	$4,781.20	$50,958.00	$36,109.75	$188,088.95	$71,417.95	$346,574.65	$564.45	$3.76	$0.31	563	$18,808.90	$37,617.79	$150,471.16	$124,685.54	$221,889.11
i932534B (WQI)	13.10	1.80	54.87	54.86	1023	$292.43	None	$4,411.14	$438.64	$24,063.79	$38,075.00	$242,039.00	$134,119.00	$360,956.86	$775,189.86	$757.76	$5.05	$0.26	1474	$13,411.90	$26,823.80	$107,295.20	$306,937.80	$468,252.06
t803019A (LPA)	6.20	0.73	26.50	26.50	849	$262.41	None	$0.00	$393.62	$10,430.93	$0.00	$0.00	$317,104.75	$156,463.95	$473,568.70	$557.80	$3.72	$0.34	698	$31,710.48	$63,420.95	$253,683.80	$63,420.95	$410,147.75
Emm993330B	5.89	0.70	20.17	20.26	842	$267.86	None	$5,527.32	$401.79	$8,140.27	$35,864.00	$111,486.00	$210,189.00	$122,103.98	$479,622.98	$569.62	$3.80	$0.36	663	$17,000.00	$42,033.80	$168,135.20	$189,383.80	$290,239.18
Totals	713		3,152	3,130	99,309	$2,643	$345,976	$2,922	$3,965	$128	$2,666,075	$9,208,753	$12,411,728	$12,704,003	$37,336,536				80,213	$1,237,155	$2,413,531	$9,939,654	$14,634,334	$22,643,657
Averages	9		40	40	1,241	$185	$7,863	$2,900	$272	$10,721	$33,326	$116,566	$155,147	$160,810	$466,707	$441	$2.94	$0.26	1,003	$15,464	$30,169	$124,246	$182,929	$283,046