### EXHIBIT C

ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION #014.00-002

### ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION



# **REGULATION NO. 2**

# **REGULATION ESTABLISHING WATER QUALITY STANDARDS FOR SURFACE WATERS OF THE STATE OF ARKANSAS**

Adopted by the Arkansas Pollution Control and Ecology Commission on July 27, 2007



Stream	<b>Concentration-mg/L</b>		n-mg/L
	Cl	<b>SO4</b> ≡	TDS
Arkansas River Basin			
Arkansas River (Mouth to L&D #7)	250	100	500
Bayou Meto (Pulaski/Lonoke County line to confluence	95**	45**	ER
with Arkansas River)	95**	45**	ER
Rocky Branch Creek	64*	ER	ER
Arkansas River (L&D #7 to L&D #10)	250	100	500
Cadron Creek	20	20	100
Arkansas River (L&D #10 to Oklahoma line, including			
Dardanelle Reservoir)	250	120	500
James Fork	20	100	275
Illinois River	20	20	300
Poteau River from Business Hwy 71to Stateline	120	60	500
Unnamed trib. at Waldron	150	70	660
White River Basin			
White River (Mouth to Dam #3)	20	60	430
Big Creek	20	30	270
Unnamed trib. from Frit Ind.	ER	48*	ER
Cache River	20	30	270
Bayou DeView	20	30	270
Little Red River (including Greers Ferry Reservoir)			
Black River	20	30	100
	20	30	270
Strawberry River	20	30	270
Spring River	20	30	290
Eleven Point River	20	30	270
Stennitt Creek	ER	ER	456*
South Fork Spring River	20	30	270
Myatt Creek	20	30	270
Current River	20	30	270
White River (Dam #3 to Missouri line, including Bull Shoals			
Reservoir)	20	20	180
Buffalo River	20	20	200
Crooked Creek	20	20	200
White River (Missouri line to headwaters, including Beaver			
Reservoir)	20	20	160
Kings River	20	20	150
West Fork White River	20	20	150
St. Francis River Basin			
St. Francis River (Mouth to 360 N. Lat.)	10	30	330
L'Anguille River	20	30	235
Tyronza River (headwaters to Ditch No. 6 confluence)	20	30	350
Tyronza River (Ditch No. 6 confluence to mouth)	20	60	350

$C\Gamma$ $SO_{s}^{-1}$ $TDS$ Little River         20         30         365           Pemiscot Bayou         20         30         380           St. Francis River (36° N. Lat. to 36° 30' N. Lat.)         10         20         180           Ouachita River Basin         20         30         370           Bayou Bartholomew         50         20         500           Overflow Creek         20         30         170           Bayou Macon         30         40         330           Bocuf River         90         30         460           Big Cornie Creek         200         10         400           Three Creeks         250         10         500           Little Cornie Creck         200         20         500           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Little Cornie Bayou from unnamed trib to State Line         215*         25*         500*           Walker Branch         180*         ER         970*           Gum Creek         104*         ER         311*           Bayou de L'Outre below Gum Creek         250         90         500           Saline	Stream	Concentration-mg/L		
Little River         20         30         365           Pemiscot Bayou         20         30         380           St. Francis River (36° N. Lat. to 36° 30' N. Lat.)         10         20         180           Ouachita River Basin         50         20         500           Bayou Bartholomew         50         20         500           Overflow Creek         20         30         170           Bayou Macon         30         40         330           Boeuf River         90         30         460           Big Cornic Creek         230         30         500           Little Cornic Creek         200         10         400           Three Creeks         200         10         400           Intrace Creeks         200         20         500           Unnamed trib form GLCC 003         538*         35*         519*           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Little Cornie Bayou from unnamed trib to State Line         215*         25*         500           Walker Branch         180*         ER         970*           Gum Creek         104*         ER         970*		Cl	SO4 <sup>≡</sup>	TDS
Pemiscot Bayou2030380St. Francis River ( $36^{\circ}$ N. Lat. to $36^{\circ}$ 30' N. Lat.)1020180Ouachita River BasinBayou Bartholomew5020500Chemin-A-Haut Creek2030170Bayou Macon3040330Bocuf River9030460Big Cornic Creek23030500Little Cornic Creek20010400Three Creeks25010500Unnamed trib from GLCC 003538*35*519*Unnamed trib from GLCC 003538*35*519*Unnamed trib to Little Cornie Bayou305*ER325*Little Cornie Bayou from unnamed trib to State Line215*500Gum Creek104*ER311*Bayou de L'Outre above Gum Creek25090500Bayou de L'Outre above Gum Creek25090500Bayou de L'Outre above Gum Creek25090500Bayou de L'Outre above Gum Creek25090500Baline River2040120Saline River2040120Saline River20500100Hurricane Cr from Hurricane Lake Dam20250500Hurricane Cr from Hurricane Cr.1257001200Murricane Cr from Hurricane Cr.1257001200Hurricane Cr troekER500550Holly Creek308601600 <td>Little River</td> <td>20</td> <td>30</td> <td>365</td>	Little River	20	30	365
St. Francis River (36° N. Lat. to 36° 30' N. Lat.)       10       20       180         Ouachita River Basin       50       20       500         Chemin-A-Haut Creek       50       20       500         Overflow Creek       20       30       170         Bayou Macon       30       40       330         Boeuf River       90       30       460         Big Cornie Creek       230       10       500         Little Cornie Creek       250       10       500         Little Cornie Bayou       200       20       500         Unnamed trib from GLCC 003       538*       35*       519*         Unnamed trib to Little Cornie Bayou       305*       ER       325*         Little Cornie Bayou from unnamed trib to State Line       215*       25*       500*         Walker Branch       180*       ER       970*         Gum Creek       104*       ER       311*         Bayou de L'Outre above Gum Creek       250       90       500         Bayou de L'Outre bolow Gum Creek       250       90       750         Ouachita River (Louisiana line to Camden)       160       40       350         Saline River east bifurcation at Holly Creek	Pemiscot Bayou	20	30	380
Ouachita River Basin           Bayou Bartholomew         50         20         500           Chemin-A-Haut Creck         50         20         500           Overflow Creek         20         30         170           Bayou Macon         30         40         330           Boeuf River         90         30         460           Big Cornie Creek         230         30         500           Little Cornie Creek         250         10         500           Little Cornie Bayou         200         20         500           Unnamed trib from GLCC 003         538*         35*         519*           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Malker Branch         180*         ER         970*           Gum Creek         104*         ER         911*           Bayou de L'Outre above Gum Creek         250         90         500           Bayou de L'Outre above Gum Creek         250         90         500           Saline River         200         40         120           Saline River (Louisiana line to Camden)         160         40         350           Saline River         100         500	St. Francis River (36° N. Lat. to 36° 30' N. Lat.)	10	20	180
Bayou Bartholomew         50         20         500           Chemin-A-Haut Creek         50         20         500           Overflow Creek         20         30         170           Bayou Macon         30         40         330           Boeuf River         90         30         460           Big Cornie Creek         230         30         500           Little Cornie Bayou         200         10         400           Three Creeks         250         10         500           Unnamed trib from GLCC 003         538*         35*         519*           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Unamed trib to Little Cornie Bayou         305*         ER         325*           Walker Branch         180*         ER         970*           Gum Creek         104*         ER         311*           Bayou de L'Outre above Gum Creek         250         90         750           Ouachita River (Louisiana line to Camden)         160         40         350           Saline River         20         40         120           Saline River east bifurcation at Holly Creek         ER         250         500	Ouachita River Basin			
Chemin-A-Haut Creek         50         20         500           Overflow Creek         20         30         170           Bayou Macon         30         40         330           Boeuf River         90         30         460           Big Cornie Creek         230         30         500           Little Cornie Creek         200         10         400           Three Creeks         250         10         500           Unnamed trib from GLCC 003         538*         35*         519*           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Little Cornie Bayou from unnamed trib to State Line         215*         25*         500*           Walker Branch         180*         ER         970*           Gum Creek         104*         ER         311*           Bayou de L'Outre bolow Gum Creek         250         90         750           Ouachita River (Louisiana line to Camden)         160         40         350           Saline River         20         40         120           Saline River         20         40         120           Saline River         20         500         140	Bayou Bartholomew	50	20	500
Overflow Creek         20         30         170           Bayou Macon         30         40         330           Boeuf River         90         30         460           Big Cornie Creek         230         30         500           Little Cornie Creek         200         10         400           Three Creeks         250         10         500           Uintamed trib tor GLCC 003         538*         35*         519*           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Little Cornie Bayou from unnamed trib to State Line         215*         25*         500*           Walker Branch         180*         ER         970*           Gum Creek         104*         ER         311*           Bayou de L'Outre above Gum Creek         250         90         750           Ouachita River (Louisiana line to Camden)         160         40         350           Saline River         20         40         120           Saline River         20         40         120           Saline River         20         40         120           Saline River         100         500         1000	Chemin-A-Haut Creek	50	20	500
Bayou Macon         30         40         330           Boeuf River         90         30         460           Big Cornie Creek         230         30         500           Little Cornie Creek         200         10         400           Three Creeks         250         10         500           Little Cornie Bayou         200         20         500           Unnamed trib from GLCC 003         538*         35*         519*           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Little Cornie Bayou from unnamed trib to State Line         215*         25*         500*           Walker Branch         180*         ER         970*           Gum Creek         104*         ER         311*           Bayou de L'Outre above Gum Creek         250         90         500           Bayou de L'Outre below Gum Creek         250         90         750           Ouachita River         20         40         120           Saline River         20         40         120           Saline River         20         40         120           Bayou de L'Outre below Little Lost Creek         ER         250         500	Overflow Creek	20	30	170
Boeuf River         90         30         460           Big Cornie Creek         230         30         500           Little Cornie Creek         200         10         400           Three Creeks         250         10         500           Little Cornie Bayou         200         20         200           Unnamed trib from GLCC 003         538*         35*         519*           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Little Cornie Bayou from unnamed trib to State Line         215*         25*         500*           Walker Branch         180*         ER         970*           Gum Creek         104*         ER         311*           Bayou de L'Outre above Gum Creek         250         90         500           Ouachita River (Lousiana line to Camden)         160         40         350           Saline River         20         40         120         Saline River         20         40         120           Saline River cast bifurcation at Holly Creek         ER         250         500         Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg         125         730         1210           Ben Ball Bridge to Hwy.270         125 <t< td=""><td>Bayou Macon</td><td>30</td><td>40</td><td>330</td></t<>	Bayou Macon	30	40	330
Big Cornie Creek         230         30         500           Little Cornie Creek         200         10         400           Three Creeks         250         10         500           Little Cornie Bayou         200         20         500           Unnamed trib from GLCC 003         538*         35*         519*           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Little Cornie Bayou from unnamed trib to State Line         215*         25*         500*           Walker Branch         180*         ER         970*           Gum Creek         104*         ER         311*           Bayou de L'Outre above Gum Creek         250         90         750           Ouachita River (Louisiana line to Camden)         160         40         350           Saline River         20         40         120           Saline River         100         500         1000           Hurricane Cr from Hurricane Lake Dam         20         250         5	Boeuf River	90	30	460
Little Cornie Creek         200         10         400           Three Creeks         250         10         500           Little Cornie Bayou         200         20         500           Unnamed trib fom GLCC 003         538*         35*         519*           Unnamed trib to Little Cornie Bayou         305*         ER         325*           Little Cornie Bayou from unnamed trib to State Line         215*         25*         500*           Walker Branch         180*         ER         970*           Gum Creek         104*         ER         311*           Bayou de L'Outre above Gum Creek         250         90         500           Ouachita River (Louisiana line to Camden)         160         40         350           Saline River         20         40         120           Saline River east bifurcation at Holly Creek         ER         250         500           Hurricane Cr from Hurricane Lake Dam         20         250         500           Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg         125         700         120           Ben Ball Bridge to Hwy.270         125         700         1200           Hwy 270 to Saline River         100         500         1000     <	Big Cornie Creek	230	30	500
Three Creeks25010500Little Cornie Bayou20020500Unnamed trib from GLCC 003 $538^*$ $35^*$ $519^*$ Unnamed trib to Little Cornie Bayou $305^*$ ER $325^*$ Little Cornie Bayou from unnamed trib to State Line $215^*$ $25^*$ $500^*$ Walker Branch $180^*$ ER $970^*$ Gum Creek $104^*$ ER $311^*$ Bayou de L'Outre above Gum Creek $250$ $90$ $500$ Bayou de L'Outre below Gum Creek $250$ $90$ $750$ Ouachita River (Louisiana line to Canden) $160$ $40$ $350$ Saline River $20$ $40$ $120$ Saline River east bifurcation at Holly CreekER $250$ $500$ Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg $125$ $730$ $1210$ Ben Ball Bridge to Hwy.270 $125$ $700$ $1200$ Hwy 270 to Saline River $100$ $500$ $1000$ Alcoa unnamed tribsER $510$ $820$ Lost Creek and tribsER $510$ $820$ Lost Creek below Little Lost CreekER $300$ $860$ $1600$ Moro Creek $30$ $20$ $260$ Smackover Creek $250$ $30$ $550$ $400$ Haynes Creek from mouth of Flat Creek to $360^*$ $55^*$ $855^*$ Smackover creek $Flat Creek from mouth of UTA to Haynes Creek165^*67^*560^*Unnamed trib A to Flat Creek from mouth of EDCC$	Little Cornie Creek	200	10	400
Little Cornie Bayou20020500Unnamed trib from GLCC 003 $538^*$ $35^*$ $519^*$ Unnamed trib to Little Cornie Bayou $305^*$ ER $325^*$ Little Cornie Bayou from unnamed trib to State Line $215^*$ $25^*$ $500^*$ Walker Branch180*ER $970^*$ Gum Creek104*ER $311^*$ Bayou de L'Outre above Gum Creek250 $90$ $500$ Dayou de L'Outre below Gum Creek250 $90$ $750$ Ouachita River (Louisiana line to Camden)160 $40$ $350$ Saline River20 $40$ 120Saline River east bifurcation at Holly CreekER $250$ $500$ Hurricane Cr above Hurricane Lake Dam20 $250$ $500$ Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg $125$ $730$ $1210$ Ben Ball Bridge to Hwy.270125 $700$ $1000$ Alcoa unnamed tribs to Hurricane Cr.125 $700$ $1000$ Alcoa unnamed tribs to Hurricane Cr.125 $700$ $1000$ Dry Lost Creek and tribsER $560$ $880$ Lost Creek below Little Lost CreekER $30$ $860$ $1600$ Moro Creek $30$ $860$ $1600$ Moro Creek $250$ $30$ $500$ Holly Creek $30$ $860$ $1600$ Moro Creek $250$ $30$ $500$ Holly Creek $80^*$ $55^*$ $855^*$ Smackover Creek $75^*$ $30$ <td< td=""><td>Three Creeks</td><td>250</td><td>10</td><td>500</td></td<>	Three Creeks	250	10	500
Unnamed trib to model trib unnamed trib to Little Cornie Bayou538* s $35^*$ s $519^*$ unnamed trib to State Line $305^*$ sER S25* s $325^*$ sWalker Branch180*ER e 970* $970^*$ Gum Creek104*ER e 970*Bayou de L'Outre above Gum Creek250 9090 750500Ouachita River (Louisiana line to Camden)160 16040 350 350Saline River20 2040 120Saline River east bifurcation at Holly Creek Hurricane Cr above Hurricane Lake Dam Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg 125 Holly 270 Hwy 270 to Saline River100 100 1000 1000 Alcoa unnamed tribs to Hurricane Cr. 125 700 1100 Dry Lost Creek and tribs Lost Creek to Little Lost Creek Lost Creek to Little Lost Creek Smackover CreekER 30 30 30 30Holly Creek Haynes Creek from mouth of Flat Creek to Flat Creek from mouth of Flat Creek to Unnamed trib A to Flat Creek from mouth of EDCC Ol ditch to confluence with Flat Creek16* 30* 315* 315* 301 315*	Little Cornie Bayou	200	20	500
Unnamed trib to Little Cornie Bayou $305^*$ ER $325^*$ Little Cornie Bayou from unnamed trib to State Line $215^*$ $25^*$ $500^*$ Walker Branch180*ER $970^*$ Gum Creek104*ER $311^*$ Bayou de L'Outre above Gum Creek25090 $500$ Bayou de L'Outre below Gum Creek25090 $750$ Ouachita River (Louisiana line to Camden)16040 $350$ Saline River east bifurcation at Holly CreekER $250$ $500$ Hurricane Cr above Hurricane Lake Dam20 $250$ $500$ Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg125 $730$ $1210$ Ben Ball Bridge to Hwy.270125 $700$ $1200$ Hwy 270 to Saline River100 $500$ $1000$ Alcoa unnamed tribs to Hurricane Cr.125 $700$ $1100$ Dry Lost Creek and tribsER $560$ $880$ Lost Creek below Little Lost CreekER $300$ $550$ Holly Creek30 $860$ $1600$ Moro Creek $30$ $20$ $260$ Smackover Creek $250$ $30$ $500$ Haynes Creek from mouth of Flat Creek to $360^*$ $55^*$ Smackover creek $75^*$ $560^*$ Unnamed trib A to Flat Creek from mouth of EDCC $16^*$ $80^*$ Markover creek $75^*$ $560^*$ Ol ditch to confluence with Flat Creek $80^*$ $315^*$ 001 ditch to confluence with Flat Creek $80^*$ $315^*$ <td>Unnamed trib from GLCC 003</td> <td>538*</td> <td>35*</td> <td>519*</td>	Unnamed trib from GLCC 003	538*	35*	519*
Little Cornie Bayou from unnamed trib to State Line $215^*$ $25^*$ $500^*$ Walker Branch180*ER970*Gum Creek104*ER311*Bayou de L'Outre above Gum Creek25090500Bayou de L'Outre below Gum Creek25090750Ouachita River (Louisiana line to Camden)16040350Saline River2040120Saline River cast bifurcation at Holly CreekER250500Hurricane Cr above Hurricane Lake Dam20250500Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg1257301210Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER3108601600Moro Creek302026030500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover Creek25030500Haynes Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek16*80*315*	Unnamed trib to Little Cornie Bayou	305*	ER	325*
Walker Branch180*ER970*Gum Creek104*ER311*Bayou de L'Outre above Gum Creek25090500Bayou de L'Outre below Gum Creek25090750Ouachita River (Louisiana line to Camden)16040350Saline River2040120Saline River east bifurcation at Holly CreekER250500Hurricane Cr above Hurricane Lake Dam20250500Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg1257301210Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER3086016000Moro Creek308601600500Moro Creek3020260260Smackover Creek25030500500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Little Cornie Bayou from unnamed trib to State Line	215*	25*	500*
Gum Creek104*ER311*Bayou de L'Outre above Gum Creek25090500Bayou de L'Outre below Gum Creek25090750Ouachita River (Louisiana line to Camden)16040350Saline River2040120Saline River east bifurcation at Holly CreekER250500Hurricane Cr above Hurricane Lake Dam20250500Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg1257301210Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER308601600Moro Creek302026030500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover CreekFlat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Walker Branch	180*	ER	970*
Bayou de L'Outre above Gum Creek $250$ $90$ $500$ Bayou de L'Outre below Gum Creek $250$ $90$ $750$ Ouachita River (Louisiana line to Camden) $160$ $40$ $350$ Saline River $20$ $40$ $120$ Saline River $20$ $40$ $120$ Saline River east bifurcation at Holly CreekER $250$ $500$ Hurricane Cr above Hurricane Lake Dam $20$ $250$ $500$ Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg $125$ $730$ $1210$ Ben Ball Bridge to Hwy.270 $125$ $700$ $1200$ Hwy 270 to Saline River $100$ $500$ $1000$ Alcoa unnamed tribs to Hurricane Cr. $125$ $700$ $1100$ Dry Lost Creek and tribsER $560$ $880$ Lost Creek to Little Lost CreekER $510$ $820$ Lost Creek below Little Lost CreekER $300$ $550$ Holly Creek $30$ $20$ $260$ Smackover Creek $250$ $30$ $500$ Haynes Creek from mouth of Flat Creek to $360^*$ $55^*$ $855^*$ Smackover creek $Flat$ Creek from mouth of UTA to Haynes Creek $165^*$ $67^*$ $560^*$ Unnamed trib A to Flat Creek from mouth of EDCC $16^*$ $80^*$ $315^*$ 001 ditch to confluence with Flat Creek $165^*$ $67^*$ $560^*$	Gum Creek	104*	ER	311*
Bayou de L'Outre below Gum Creek25090750Ouachita River (Louisiana line to Camden)16040350Saline River2040120Saline River east bifurcation at Holly CreekER250500Hurricane Cr above Hurricane Lake Dam20250500Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg1257301210Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER308601600Moro Creek302026030500Holly Creek302026030500Moro Creek from mouth of Flat Creek to360*55*855*Smackover CreekFlat Creek from mouth of Flat Creek to360*55*855*Ol ditch to confluence with Flat Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Bavou de L'Outre above Gum Creek	250	90	500
Ouachita River (Louisiana line to Camden)16040350Saline River2040120Saline River east bifurcation at Holly CreekER250500Hurricane Cr above Hurricane Lake Dam20250500Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg1257301210Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER3108601600Moro Creek302026030500Moro Creek250305001000Maynes Creek from mouth of Flat Creek to360*55*855*Smackover creekFlat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek16*80*315*	Bayou de L'Outre below Gum Creek	250	90	750
Saline River2040120Saline River east bifurcation at Holly CreekER250500Hurricane Cr above Hurricane Lake Dam20250500Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg1257301210Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER510820Lost Creek below Little Lost CreekER30860Holly Creek308601600Moro Creek25030500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover creekFlat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek16*80*315*	Ouachita River (Louisiana line to Camden)	160	40	350
Saline River east bifurcation at Holly CreekER250500Hurricane Cr above Hurricane Lake Dam20250500Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg1257301210Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER510820Lost Creek below Little Lost CreekER30860Holly Creek3020260Smackover Creek25030500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover creekFlat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Saline River	20	40	120
Hurricane Cr above Hurricane Lake Dam20250500Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg1257301210Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER510820Lost Creek below Little Lost CreekER300550Holly Creek308601600Moro Creek25030500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover creekFlat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek	Saline River east bifurcation at Holly Creek	ER	250	500
Hurricane Cr from Hurricane Lk. Dam to Ben Ball Brdg1257301210Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER510820Lost Creek below Little Lost CreekER300550Holly Creek308601600Moro Creek25030500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover creekFlat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek	Hurricane Cr above Hurricane Lake Dam	20	250	500
Ben Ball Bridge to Hwy.2701257001200Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER510820Lost Creek below Little Lost CreekER300550Holly Creek308601600Moro Creek25030500Haynes Creek from mouth of Flat Creek to360*55*Smackover creekFlat Creek from mouth of UTA to Haynes Creek165*67*Hat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek16*80*315*	Hurricane Cr from Hurricane Lk Dam to Ben Ball Brdg	125	730	1210
Hwy 270 to Saline River1005001000Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER510820Lost Creek below Little Lost CreekER300550Holly Creek308601600Moro Creek3020260Smackover Creek25030500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover creekFlat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek	Ben Ball Bridge to Hwy.270	125	700	1200
Alcoa unnamed tribs to Hurricane Cr.1257001100Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER510820Lost Creek below Little Lost CreekER300550Holly Creek308601600Moro Creek3020260Smackover Creek25030500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover creekFlat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Hwy 270 to Saline River	100	500	1000
Dry Lost Creek and tribsER560880Lost Creek to Little Lost CreekER510820Lost Creek below Little Lost CreekER300550Holly Creek308601600Moro Creek3020260Smackover Creek25030500Haynes Creek from mouth of Flat Creek to Smackover creek360*55*855*Flat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Alcoa unnamed tribs to Hurricane Cr.	125	700	1100
Lost Creek to Little Lost CreekER510820Lost Creek below Little Lost CreekER300550Holly Creek308601600Moro Creek3020260Smackover Creek25030500Haynes Creek from mouth of Flat Creek to Smackover creek360*55*855*Flat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Dry Lost Creek and tribs	ER	560	880
Lost Oreal to Linte Bob orealEntOrealLost Creek below Little Lost CreekER300550Holly Creek308601600Moro Creek3020260Smackover Creek25030500Haynes Creek from mouth of Flat Creek to360*55*855*Smackover creek55*855*855*Flat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Lost Creek to Little Lost Creek	ER	510	820
Holly Creek308601600Moro Creek3020260Smackover Creek25030500Haynes Creek from mouth of Flat Creek to Smackover creek360*55*855*Smackover creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Lost Creek below Little Lost Creek	ER	300	550
Moro Creek3020260Smackover Creek25030500Haynes Creek from mouth of Flat Creek to Smackover creek360*55*855*Flat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek16*80*315*	Holly Creek	30	860	1600
Smackover Creek25030500Haynes Creek from mouth of Flat Creek to Smackover creek360*55*855*Flat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek165*67*560*	Moro Creek	30	20	260
Haynes Creek from mouth of Flat Creek to360*55*855*Smackover creekFlat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek16*80*315*	Smackover Creek	250	$\frac{2}{30}$	500
Smackover creekStat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek	Havnes Creek from mouth of Flat Creek to	360*	55*	855*
Flat Creek from mouth of UTA to Haynes Creek165*67*560*Unnamed trib A to Flat Creek from mouth of EDCC16*80*315*001 ditch to confluence with Flat Creek	Smackover creek	200		000
Unnamed trib A to Flat Creek from mouth of EDCC 16* 80* 315* 001 ditch to confluence with Flat Creek	Flat Creek from mouth of UTA to Havnes Creek	165*	67*	560*
001 ditch to confluence with Flat Creek	Unnamed trib A to Flat Creek from mouth of EDCC	16*	80*	315*
	001 ditch to confluence with Flat Creek	10	00	510
Confluence with unnamed trib A to Flat Creek 23* 125* 475*	Confluence with unnamed trib A to Flat Creek	23*	125*	475*
Bayou de L'Outre Creek above Loutre Creek 180 FR 970	Bayou de L'Outre Creek above Loutre Creek	180	ER	970
Unnamed trib UT004 from GLCC 014* FR 311*	Unnamed trib UT004 from GLCC	014*	ER	311*
Unnamed trib UT002 from GLCC 278* 90* 500*	Unnamed trib UT002 from GLCC	278*	90*	500*

Stream		Concentration-mg/L		
	Cl	$\underline{SO}_4^{\equiv}$	TDS	
Loutre Creek- from Hwy 15 South to the confluence of Bayou de Loutre	256*	997*	1756*	
Bayou de Loutre – from Loutre Creek to the discharge	264*	635*	1236*	
Bayou de Loutre – from the discharge for the City of El Dorado-South downstream to the mouth of Gum Creek	250*	431*	966*	
Bayou de Loutre – from the mouth of Gum Creek downstream to the mouth of Boggy Creek	250*	345*	780*	
Boggy Creek - from the discharge for Clean Harbors El Dorado LLC to the confluence of Bayou de Loutre	631*	63*	1360*	
Bayou de Loutre- from the mouth of Boggy Creek downstream to the mouth of Hibank Creek	250*	296*	750*	
Bayou de Loutre – from the mouth of Hibank Creek downstream to the mouth of Mill Creek	250*	263*	750*	
Bayou de Loutre – from the mouth of Mill Creek downstream to the mouth of Buckaloo Branch	250*	237*	750*	
Bayou de Loutre- from the mouth of Buckaloo Branch downstream to the mouth of Bear Creek	250*	216*	750*	
Bayou de Loutre – from the mouth of Bear Creek downstream to the final segment of Bayou de Loutre	250*	198*	750*	
Bayou de Loutre (Final segment) – from the mouth of Bear Creek to the Arkansas/Louisiana State Line	250*	171*	750*	
Quachita River (Camden to Carpenter Dam)	50	40	150	
Town Creek below Acme tributary	ED 20	200	700	
Unnamed trib from A ome		200	200 200	
Little Misseuri Diver	EK 10	550	030	
Little Missouri River		90 250	180	
Muddy Fork Little Missouri		250	1022*	
Bluff Creek and unnamed trib.	EK	651*	1033*	
Garland Creek	250	250	500	
South Fork Caddo	EK	60	128	
Back Valley Creek	ER	250	500	
Ouachita River (Carpenter Dam to Headwaters,				
including Lake Ouachita tributaries)	10	10	100	
Red River Basin	100	1 64	250	
Bayou Dorcheat	100	16*	250	
Albemarle unnamed trib (AUT) to Horsehead Creek	13/*	ER	383*	
Horsehead Creek from AUT to mouth	85*	ER	260*	
Cypress Creek	250	70	500	
Crooked Creek	250	10	500	
Dismukes Creek	26	ER	157	
Big Creek from Dismukes to Bayou Dorcheat	20	ER	200	

Stream		Concentration-mg/L		
	Cl	<u>SO4</u> ≡	TDS	
Bois d'Arc Creek from Caney Creek to Red River	113*	283*	420*	
Caney Creek	113*	283*	420*	
Bodcau Creek	250	70	500	
Poston Bayou	120	40	500	
Kelley Bayou	90	40	500	
Red River from Oklahoma to confluence with Little				
River	250	200	850	
Red River from Little River to Louisiana	250	200	500	
Sulphur River	120	100	500	
Days Creek	250	250	500	
McKinney Bayou	180	60	480	
Little River	20	20	100	
Saline River	20	10	90	
Mine Creek from Hwy 27 to Millwood Lake	90	65	700	
Cossatot River	10	15	70	
Upper Rolling Fork	20	20	100	
Rolling Fork from unnamed trib A to DeQueen Lake	130	70	670	
Unnamed tribs A and A1 at Grannis	135	70	700	
Mountain Fork	20	20	110	
Mississippi River (Louisiana line to Arkansas River)	60	150	425	
Mississippi River (Arkansas River to Missouri line)	60	175	450	

ER - ecoregion standard

\* - based on critical background flow of 4 cfs

\*\* - These limits shall apply to all tributaries of Bayou Meto and Bayou Two Prairie listed in Appendix A Any modification of these values must be made in accordance with Reg. 2.306.

The following values determined from Arkansas' least-disturbed ecoregion reference streams are considered to be the maximum naturally occurring levels. For waterbodies not listed above, any discharge which results in instream concentrations more than 1/3 higher than these values for Cl and  $SO_4^{=}$  or more than 15 mg/l, whichever is greater, is considered to be a significant modification of the water quality. Similarly, such modification exists if the following TDS values are exceeded after being increased by the sum of the increases to Cl and  $SO_4$ . Such modifications may be made only in accordance with Reg. 2.306.

#### ECOREGION REFERENCE STREAM DATA (mg/l)

	<u>Cl</u>	$\underline{SO}_{\underline{4}}^{\equiv}$	TDS
Ozark Highlands	13	17	240
Boston Mountains	13	9	85
Arkansas River Valley	10	13	103
Ouachita Mountains	6	15	128

	<u>Cl</u>	$\underline{SO}_4^{\equiv}$	<u>TDS</u>
Gulf Coastal Plains	14	31	123
Delta	36	28	390

In no case shall discharges cause concentrations in any waterbody to exceed 250, 250 and 500 mg/l of chlorides, sulfates and total dissolved solids, respectively, or cause concentrations to exceed the applicable limits in the streams to which they are tributary, except in accordance with Reg. 2.306.

#### Reg. 2.512 Ammonia

7.2

7.3

7.4

Total ammonia nitrogen (N) shall not exceed those values and frequency of occurrence established in the following tables:

(A) The one-hour average concentration of total ammonia nitrogen shall not exceed, more than once every three years on the average, the acute criterion as shown in the following table:

29.5

26.2

23.0

<u>pH</u>	<u>Salmonids*</u> <u>Present</u>	<u>Salmonids</u> <u>Absent</u>
6.5	32.6	48.8
6.6	31.3	46.8
6.7	29.8	44.6
6.8	28.1	42.0
6.9	26.2	39.1
7.0	24.1	36.1
7.1	22.0	32.8

#### pH-Dependent Values of the CMC (Acute Criterion)- mg/L

7.5	13.3	19.9
7.6	11.4	17.0
7.7	9.65	14.4
7.8	8.11	12.1
7.9	6.77	10.1
8.0	5.62	8.40
8.1	4.64	6.95
8.2	3.83	5.72
8.3	3.15	4.71
8.4	2.59	3.88
8.5	2.14	3.20
8.6	1.77	2.65
8.7	1.47	2.20

19.7

17.5

15.4

### Index to Plates of the Delta



#### **DESIGNATED USES: DELTA ECOREGION**

(Plates D-1, D-2, D-3, D-4)

#### **Extraordinary Resource Waters**

Second Creek (D-4) Cache River above Cache Bayou - adjacent to natural areas (D-3) Arkansas River below Dam #2 (D-5) Strawberry River (D-1) Two Prairie Bayou adjacent to natural areas (D-3)

#### **Natural and Scenic Waterways**

None

#### **Ecologically Sensitive Waterbodies**

Lower St. Francis River and lower 10 miles of Straight Slough - location of fat pocketbook mussel (D-2, D-4) Right Hand Chute at confluence with St. Francis River - location of fat pocketbook mussel (D-2) Departee Creek - location of flat floater mussel (D-1) Black River at mouth of Spring River - location of pink mucket mussel (D-1)

<u>Channel-altered Delta Ecoregion Streams</u> - These include the majority of the streams in this ecoregion and are characterized by substantial alteration of the morphology of their main-stream channel as well as their tributary streams. Such alteration of the tributaries of these streams significantly affects the water quality and hydrology of the streams and their watersheds. Most of the upper segments of these waters have been dredged and straightened into ditches. Additionally most of the tributaries of these streams have been straightened, ditched and, in some cases, rerouted to quickly move water off the agriculture fields and into the major streams. In the lower segments of these waters, channel realignment is less expansive but most of these channels have been "snagged" to remove any instream obstructions (brush, logs, and other debris) and the stream channel and banks have been dredged to uniform depths and cleared of any obstructions. These include Cache River, Bayou DeView, Village Creek, Blackfish Bayou and others to be determined by the Department on a case by case basis.

**Primary Contact Recreation** - all streams with watersheds of greater than 10 mi<sup>2</sup> and all lakes/reservoirs

Secondary Contact Recreation - all waters

Domestic, Industrial and Agricultural Water Supply - all waters

#### **Fisheries**

Trout - none

#### Lakes and Reservoirs - all

#### Streams

Seasonal Delta fishery - all streams with watersheds of less than 10 mi<sup>2</sup> except as otherwise provided in Reg. 2.505

Perennial Delta fishery - all streams with watersheds 10 mi<sup>2</sup> or larger and those waters where discharges equal or exceed 1 CFS

#### Use Variation Supported by UAA

Unnamed ditch to Little Lagrue Bayou - perennial Delta fishery (D-3, #1) Little Lake Bayou - seasonal Delta fishery; no primary contact (D-5, #2) Coon Creek and unnamed tributary from Frit Ind. - no domestic water supply use (D-1,#3) Rocky Branch Creek and Bayou Meto from Rocky Branch Creek to Bayou Two Prairie - no domestic water supply use (D-3 #4) Ditch No. 27 – no domestic water supply use (D-2, #5) Ditch No. 6 – no domestic water supply use (D-2, #6)

#### SPECIFIC STANDARDS: DELTA ECOREGION

(Plates D-1, D-2, D-3, D-4)

		Least-Altered Streams	Chann Strean	el-Altered 1s	Lakes and Reservoirs
Temperature oC (oF)*		30 (86)	32 (89.	6)	32 (89.6)
White River		32 (89.6)			
St. Francis River		32 (89.6)			
Mississippi River		32 (89.6)			
Arkansas River		32 (89.6)			
Turbidity (NTU)(primary/storm)		45/84	75/250		25/45
Arkansas River(primary/stor	m)	50/52			
Mississippi River (primary/s	torm)	50/75			
St. Francis River(primary/storm)		75/100			
Minerals		see Reg. 2.511	see Reg	g. 2.511	see Reg. 2.511
Dissolved Oxygen (mg/l)**	<u>Pri</u>	Crit	<u>Pri</u>	<u>Crit.</u>	see Reg. 2.505
<10 mi2 watershed	5	2	5	2	
10 mi2 to 100 mi2	5	3	5	3	
>100 mi2 watershed	5	5	5	5	
All other standards	(sai	me as statewide)			

#### Variations Supported by UAA

Unnamed ditch to Little Lagrue Bayou - from headwaters to confluence with Little Lagrue Bayou, critical season D.O. standard - 3 mg/l (D-3, #1) Little Lake Bayou - critical season D.O. standard - 2 mg/l (D-5, #2) Unnamed tributary from Frit Ind, to Coon Creek - sulfates 48 mg/l (D-1, #3) Rocky Branch Creek- chlorides 64 mg/l (D-3, #4) Bayou Meto (Pulaski/Lonoke line to confluence with Arkansas River) - chlorides 95 mg/l; sulfates 45 mg/l (D-3, #4) Ditch No. 27 - sulfates 480 mg/l; TDS 1,200 mg/l; maximum water temperature 95oF (D-2, #5) Ditch No. 6 from Ditch No. 27 confluence to its mouth – sulfates 210 mg/l; TDS 630 mg/l (D-2, #6) Tyronza River from Ditch No. 6 confluence to its mouth – sulfates 60 mg/l – see Reg. 2.511 (D-2, #7) Bayou Two Prairie (Pulaski/Lonoke line to confluence with Arkansas River) - chlorides 95 mg/l; sulfates 45 mg/l Little Bayou Meto - chlorides 95 mg/l; sulfates 45 mg/l Bakers Bayou - chlorides 95 mg/l; sulfates 45 mg/l Wabbaseka Bayou - chlorides 95 mg/l; sulfates 45 mg/l Indian Bayou – chlorides 95 mg/l; sulfates 45 mg/l Flat Bayou – chlorides 95 mg/l; sulfates 45 mg/l Shumaker Branch – chlorides 95 mg/l; sulfates 45 mg/l Skinner Branch – chlorides 95 mg/l; sulfates 45 mg/l White Oak Branch – chlorides 95 mg/l; sulfates 45 mg/l Caney Creek - chlorides 95 mg/l; sulfates 45 mg/l Salt Bayou – chlorides 95 mg/l; sulfates 45 mg/l Snow Bayou – chlorides 95 mg/l; sulfates 45 mg/l Fish Trap Slough – chlorides 95 mg/l; sulfates 45 mg/l Rickey Branch – chlorides 95 mg/l; sulfates 45 mg/l

Blue Point Ditch- - chlorides 95 mg/l; sulfates 45 mg/l Big Ditch – chlorides 95 mg/l; sulfates 45 mg/l Main Ditch – chlorides 95 mg/l; sulfates 45 mg/l Crooked Creek Ditch - chlorides 95 mg/l; sulfates 45 mg/l Indian Bayou Ditch - chlorides 95 mg/l; sulfates 45 mg/l Caney Creek Ditch - chlorides 95 mg/l; sulfates 45 mg/l Salt Bayou Ditch – chlorides 95 mg/l; sulfates 45 mg/l Bradley Slough - chlorides 95 mg/l; sulfates 45 mg/l Tupelo Bayou – chlorides 95 mg/l; sulfates 45 mg/l Dennis Slough – chlorides 95 mg/l; sulfates 45 mg/l Buffalo Slough – chlorides 95 mg/l; sulfates 45 mg/l Flynn Slough – chlorides 95 mg/l; sulfates 45 mg/l Boggy Slough - chlorides 95 mg/l; sulfates 45 mg/l Bear Bayou – chlorides 95 mg/l; sulfates 45 mg/l Bubbling Slough – chlorides 95 mg/l; sulfates 45 mg/l Five Forks Bayou - chlorides 95 mg/l; sulfates 45 mg/l Government Cypress Slough - chlorides 95 mg/l; sulfates 45 mg/l Brushy Slough – chlorides 95 mg/l; sulfates 45 mg/l Tipton Ditch – chlorides 95 mg/l; sulfates 45 mg/l Hurricane Slough – chlorides 95 mg/l; sulfates 45 mg/l Newton Bayou – chlorides 95 mg/l; sulfates 45 mg/l West Bayou - chlorides 95 mg/l; sulfates 45 mg/l Long Pond Slough – chlorides 95 mg/l; sulfates 45 mg/l Castor Bayou – chlorides 95 mg/l; sulfates 45 mg/l Cross Bayou - chlorides 95 mg/l; sulfates 45 mg/l Brownsville Branch-- chlorides 95 mg/l; sulfates 45 mg/l Eagle Branch-- chlorides 95 mg/l; sulfates 45 mg/l

<sup>\*</sup> Increase over natural temperatures may not be more than 2.8°C (5°F).

<sup>\*\*</sup> When water temperatures exceed 22 ° C, the critical season D.O. standard may be depressed by 1 mg/l for no more than 8 hours during a 24-hour period.

# Plate D-1 (Delta)











A-48