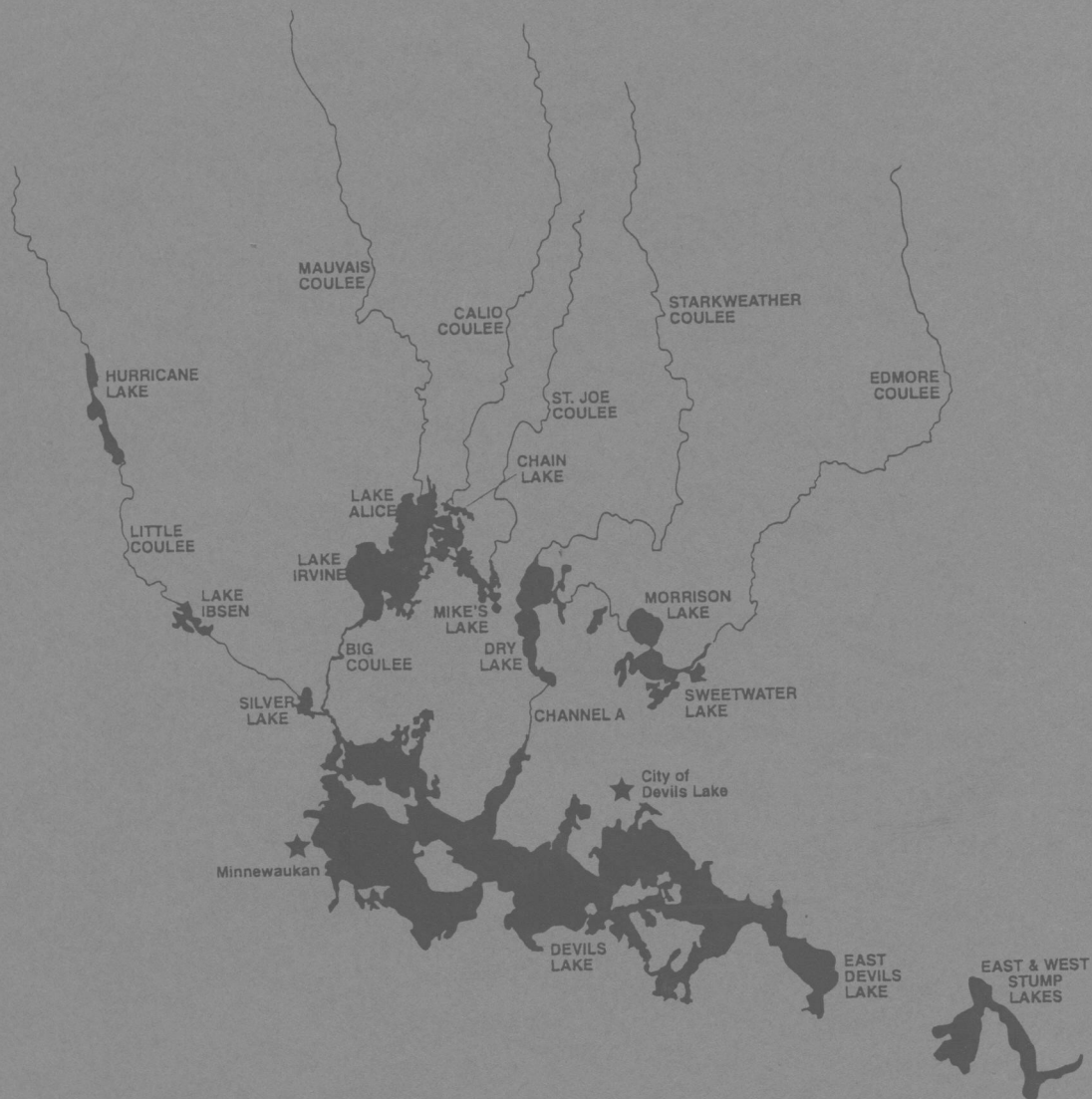


DEVILS LAKE FLOOD LAND ANALYSIS STUDY



Study of pre-flood usage of flood impacted land continuous to
Devils Lake

Prepared by North Central Planning Council
Devils Lake, North Dakota

JUNE 2002

Devils Lake Flood
Land Impact Study

Study of pre-flood usage of flood impacted land continuous to Devils Lake.

Prepared by: North Central Planning Council
PO Box 651
Devils Lake, ND 58301
Richard M. Anderson, Executive Director

Funded by: Ramsey County
Benson County
Devils Lake Basin Joint Water Resource Board

Credits: Maps – ND Department of Transportation and ND State Water
Commission

Maps-County Recorder Offices from Ramsey, Benson, Nelson and
Towner Counties

Mapping-Ramsey County Tax Equalization

Land Use Photos-USDA Offices from Ramsey, Benson, Towner
and Nelson Counties

Research, Evaluation and Computations – Stacy Twete

Editing and Scope – Richard Anderson

Collation – NCPC Staff

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Purpose

The purpose of this study is to determine the pre-flood use of land that has been inundated by Devils Lake. The area of consideration is the land that lies between the low point, which is the established meander lines, the high point of elevation 1450 msl, and continuous to Devils Lake. All the area included in the study lies within the Devils Lake Basin and are portions of Ramsey, Benson, Towner, and Nelson Counties in North Dakota.

History

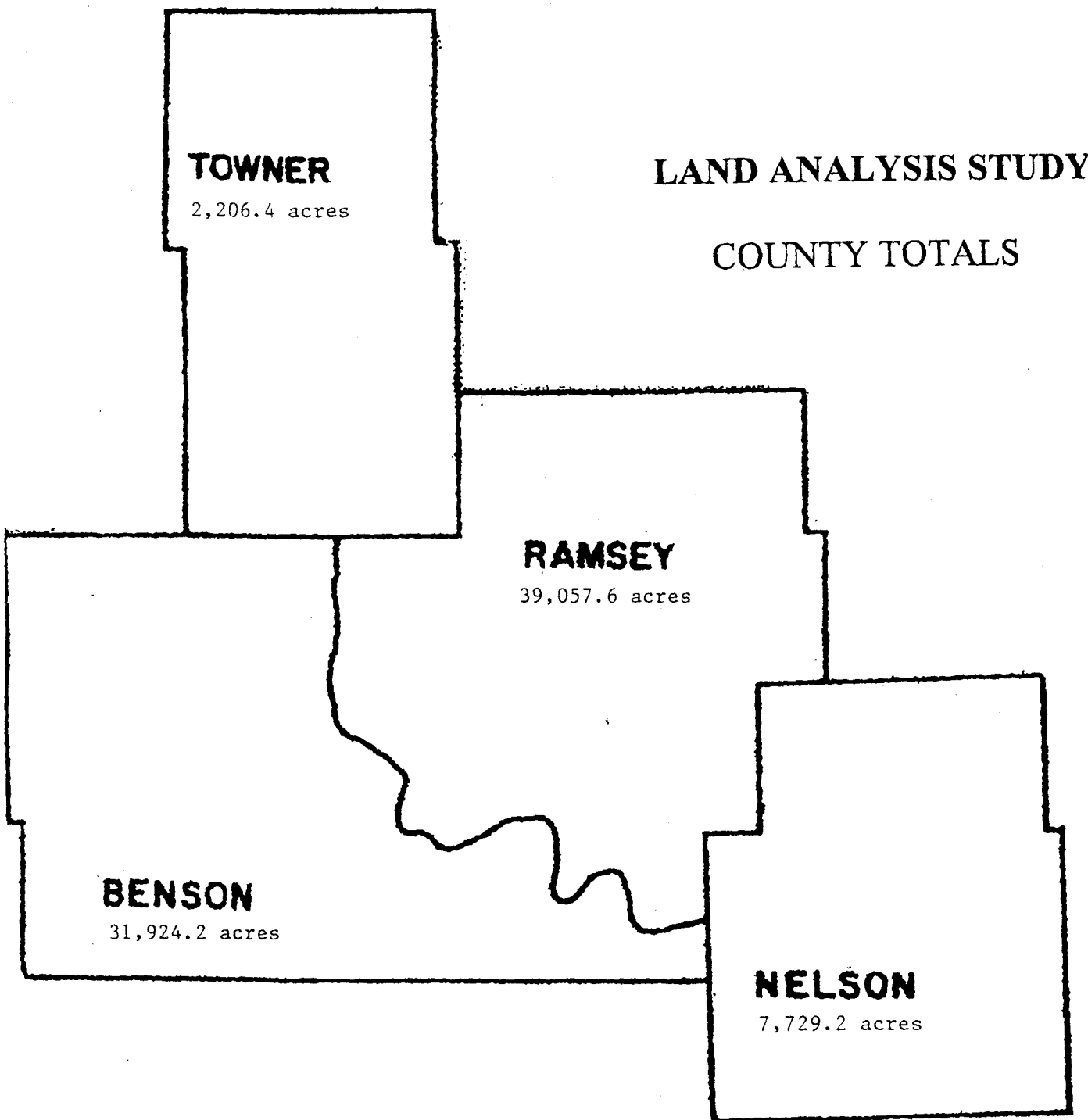
Devils Lake is located on the southern edge of a chain of lakes and is the depository for a large drainage basin which has no natural outlet until extensive flooding of land has occurred. The lake is the largest natural lake located in North Dakota. The lake has risen over 25 feet since 1993 and has expanded from 40,000 to 125,000 acres. With the exception of a levee to protect the City of Devils Lake, the lake has been allowed to expand freely as the elevation increases. This causes flooding to cropland, pasture/hayland, residential developments, farmsteads, parks/refuges and other natural or developed land features.

Method

The pre-flood use of the land was calculated using a several step method and by using information gathered from obtained different sources.

- Maps showing detailed established meander lines from the study areas were obtained from County Recorder Officer.
- Contour maps of the study area were created using the LIDAR (Light Detection and Ranging) Mapping System established by FEMA and the Corps of Engineers and obtained from the Ramsey County Tax Equalization Office.

- Aerial photos were obtained from USDA for each section of land in the study area. Photos were originated during June and July 1990, prior to the flooding of the area.
- A transparency was created using the meander line maps and the contour maps for each affected section of land.
- The transparency was then overlaid over the USDA aerial photos and acreage was determined for each land use using the USDA-Soil Conservation Service Dot Counter.
- The land use of effected areas in the study could then be established by section, by township or by county.



LAND ANALYSIS STUDY

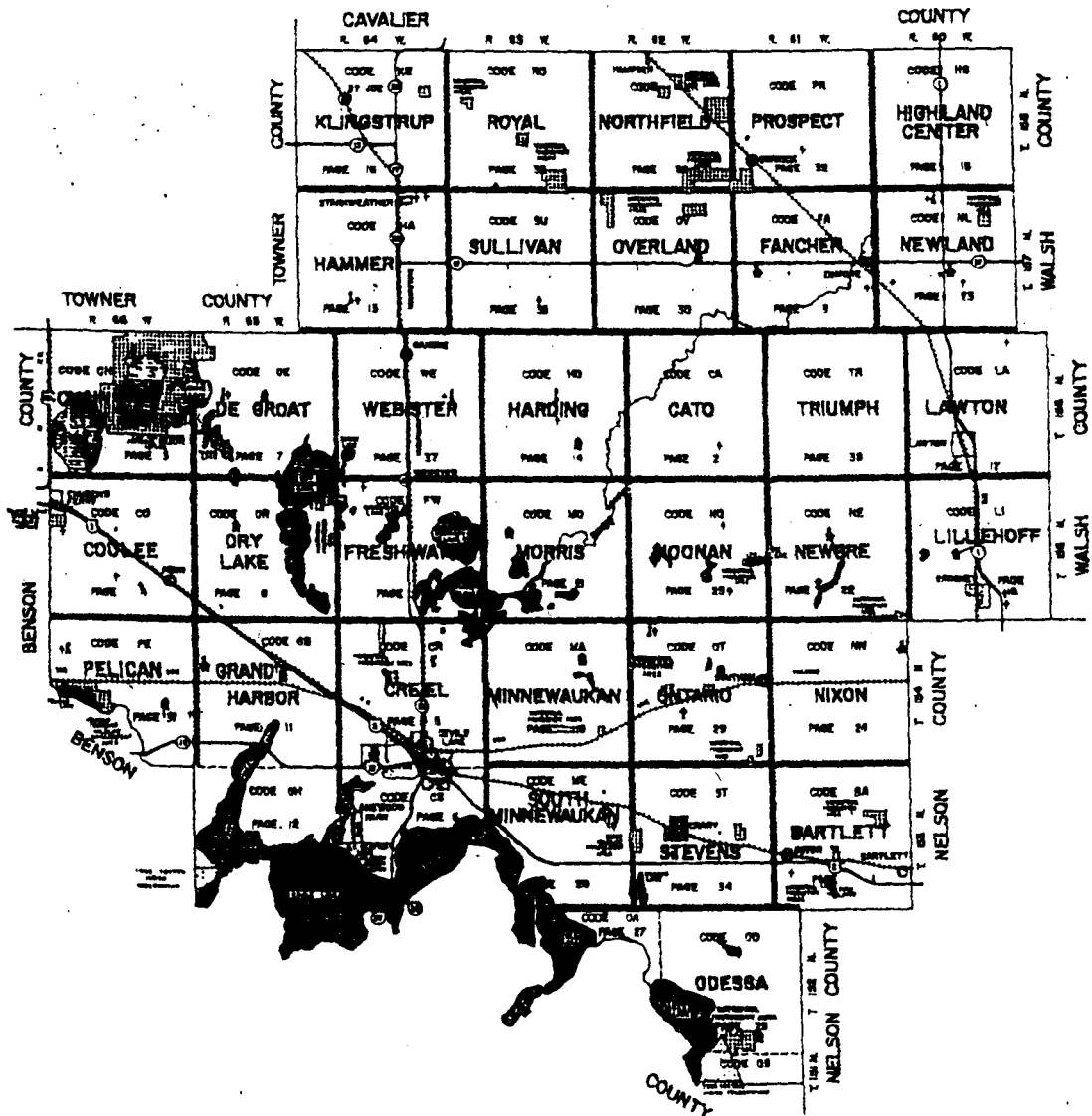
COUNTY TOTALS

COUNTY TOTALS INUNDATED LAND Acres by Category

	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	TOTAL
Ramsey	21,764.8	15,562.9	435.2	248.0	155.5	891.2	39,057.6
Benson	10,585.8	17,427.4	236.8	169.6	84.8	3,419.8	31,924.2
Nelson	4,254.2	1,928.2	0.0	19.2	54.4	1,473.2	7,729.2
Towner	2,131.2	16.0	0.0	9.6	0.0	49.6	2,206.4
TOTALS	38,736.0	34,934.5	672.0	446.4	294.7	5,833.8	80,917.4

RAMSEY COUNTY

NORTH DAKOTA



RAMSEY COUNTY
INUNDATED LAND

			Developed				
	Cropland/CRP	Pasture/Hay	Residential	Farmstead	Parks/Refuge	Other	TOTAL
Chain Lakes	3,680.8	5,229.6	0.0	25.6	0.0	9.6	8,945.6
Coulee	4,582.4	208.0	0.0	38.4	0.0	41.6	4,870.4
Creel	844.8	502.3	219.2	27.2	0.0	33.6	1,627.1
De Groat	6,054.4	873.6	0.0	54.4	0.0	161.6	7,144.0
Dry Lake	524.8	464.0	0.0	0.0	0.0	168.0	1,156.8
Fresh Water	344.0	6.4	0.0	0.0	0.0	28.8	379.2
Grand Harbor	408.0	646.4	24.0	11.2	0.0	51.2	1,140.8
Odessa	2,011.2	630.4	0.0	27.2	0.0	131.2	2,800.0
Pelican	2,115.2	5,116.8	0.0	46.4	0.0	128.0	7,406.4
Poplar Grove	688.8	1,495.0	158.4	14.4	155.5	108.8	2,620.9
South Minnewaukan	464.0	224.0	33.6	3.2	0.0	28.8	753.6
Stevens	17.6	166.4	0.0	0.0	0.0	0.0	184.0
Webster	28.8	0.0	0.0	0.0	0.0	0.0	28.8
TOTAL RAMSEY	21,764.8	15,562.9	435.2	248.0	155.5	891.2	39,057.6



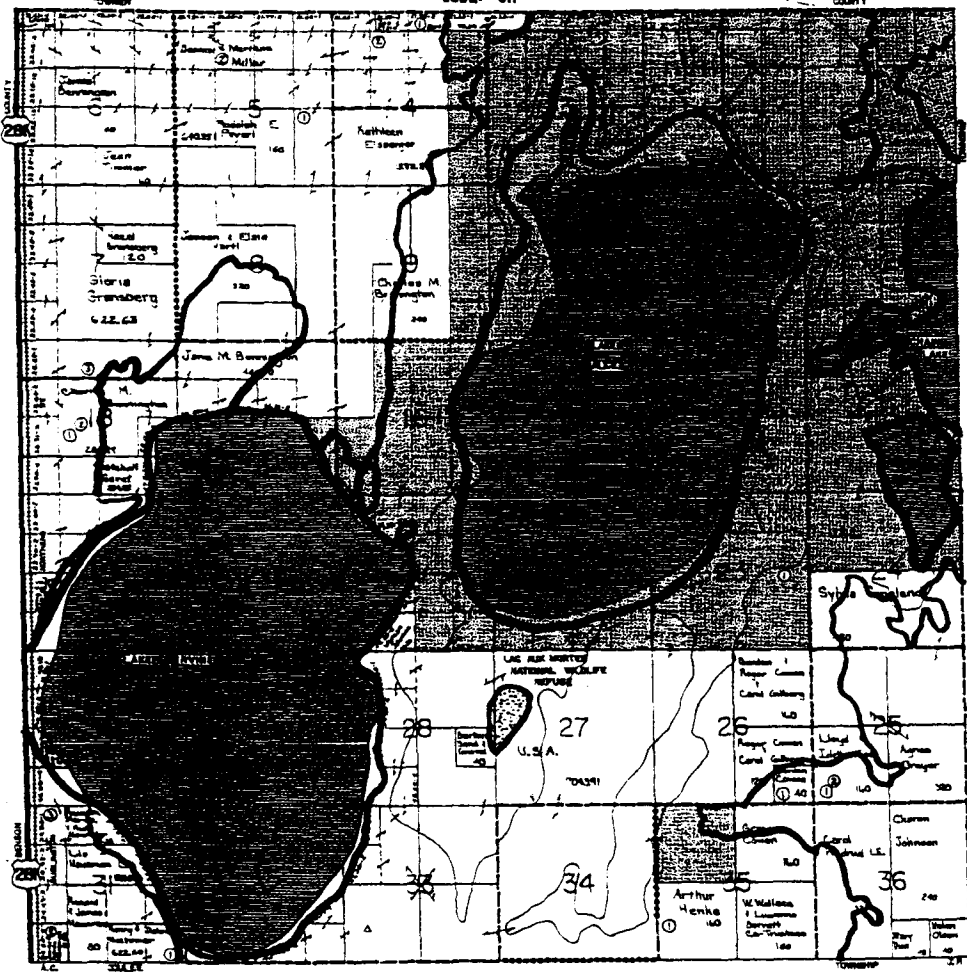
MAP OF CHAIN LAKES



TOWNSHIP: 156 N.

RANGE: 66 W.

CODE: CH



Chain Lakes
Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 1	14.4	385.6					400.0
Section 2		492.8					492.8
Section 3		446.4					446.4
Section 4	139.2						139.2
Section 8	206.4					9.6	216.0
Section 9	318.4	80.0					398.4
Section 10	76.8						76.8
Section 11		105.6					105.6
Section 12		438.4					438.4
Section 13		387.2					387.2
Section 14	70.4	172.8					243.2
Section 15		6.4					6.4
Section 16	48.0	304.0					352.0
Section 17	172.8						172.8
Section 18	203.2	22.4					225.6
Section 19		67.2					67.2
Section 21	94.4	230.4					324.8
Section 22		136.0					136.0
Section 23	244.0	220.0		3.2			467.2
Section 24	244.8	164.8					409.6
Section 25	83.2	38.4					121.6
Section 26	36.8			9.6			46.4
Section 27	108.8	488.0		6.4			603.2
Section 28	188.8	320.0					508.8
Section 30	46.4						46.4
Section 31		76.8					76.8
Section 32		104.0					104.0
Section 33	467.2	136.0					603.2
Section 34	320.0	320.0					640.0
Section 35	480.0	86.4		6.4			572.8
Section 36	116.8						116.8
TOTALS	3680.8	5229.6	0.0	25.6	0.0	9.6	8945.6

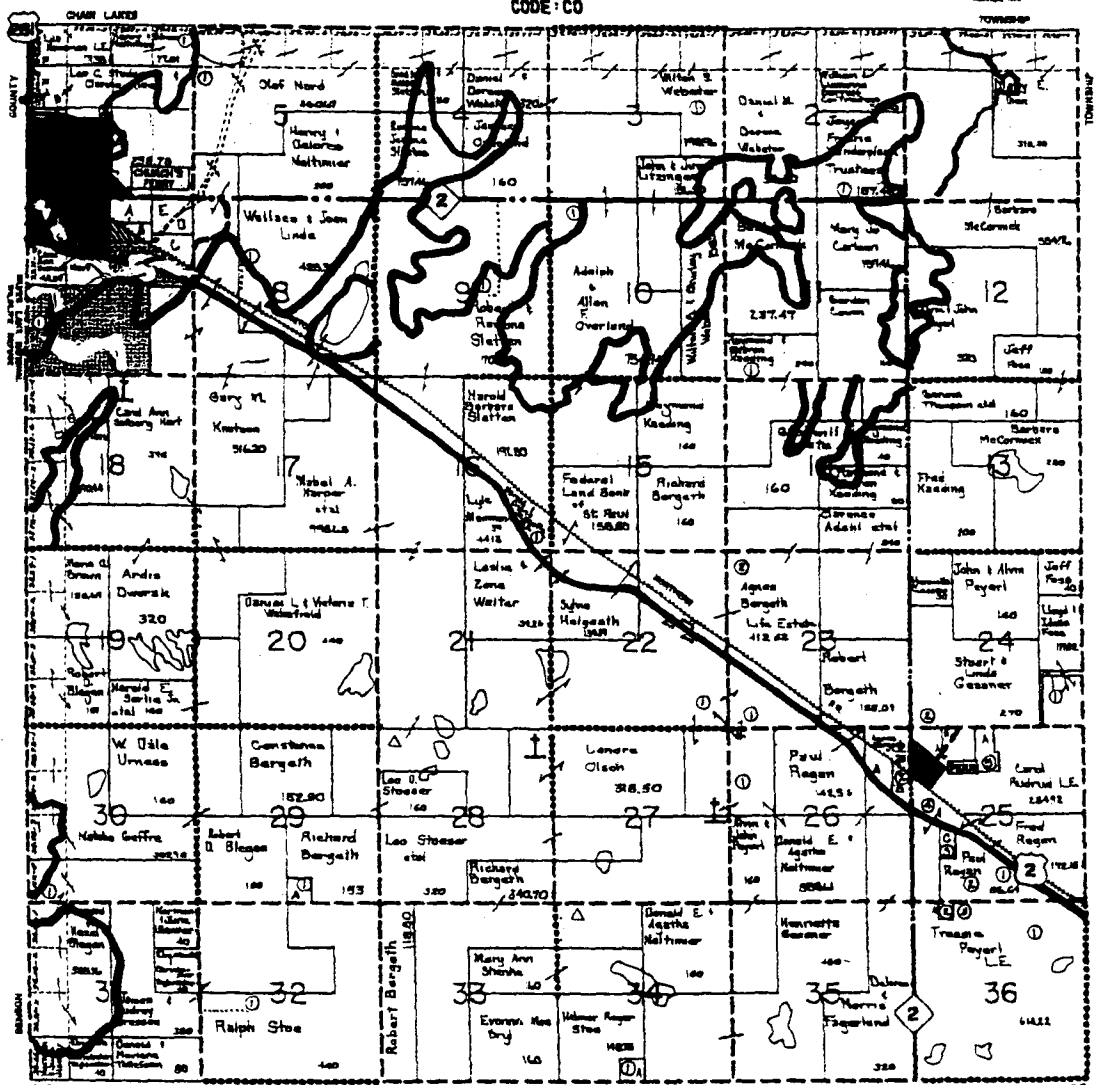


MAP OF COULEE

TOWNSHIP 155 N.

CODE: CO

RANGE: 66 W.



COULEE

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 1	214.4						214.4
Section 2	430.4	57.6					488.0
Section 3	584.0	14.4		20.8			619.2
Section 4	470.4	40.0					510.4
Section 5	529.6	96.0		14.4			640.0
Section 6	198.4					16.0	214.4
Section 7	324.8					20.8	345.6
Section 8	296.0			3.2		4.8	304.0
Section 9	329.6						329.6
Section 10	475.2						475.2
Section 11	120.0						120.0
Section 12	64.0						64.0
Section 14	100.8						100.8
Section 15	30.4						30.4
Section 16	25.6						25.6
Section 18	88.0						88.0
Section 30	60.8						60.8
Section 31	240.0						240.0
TOTALS	4582.4	208.0	0.0	38.4	0.0	41.6	4870.4



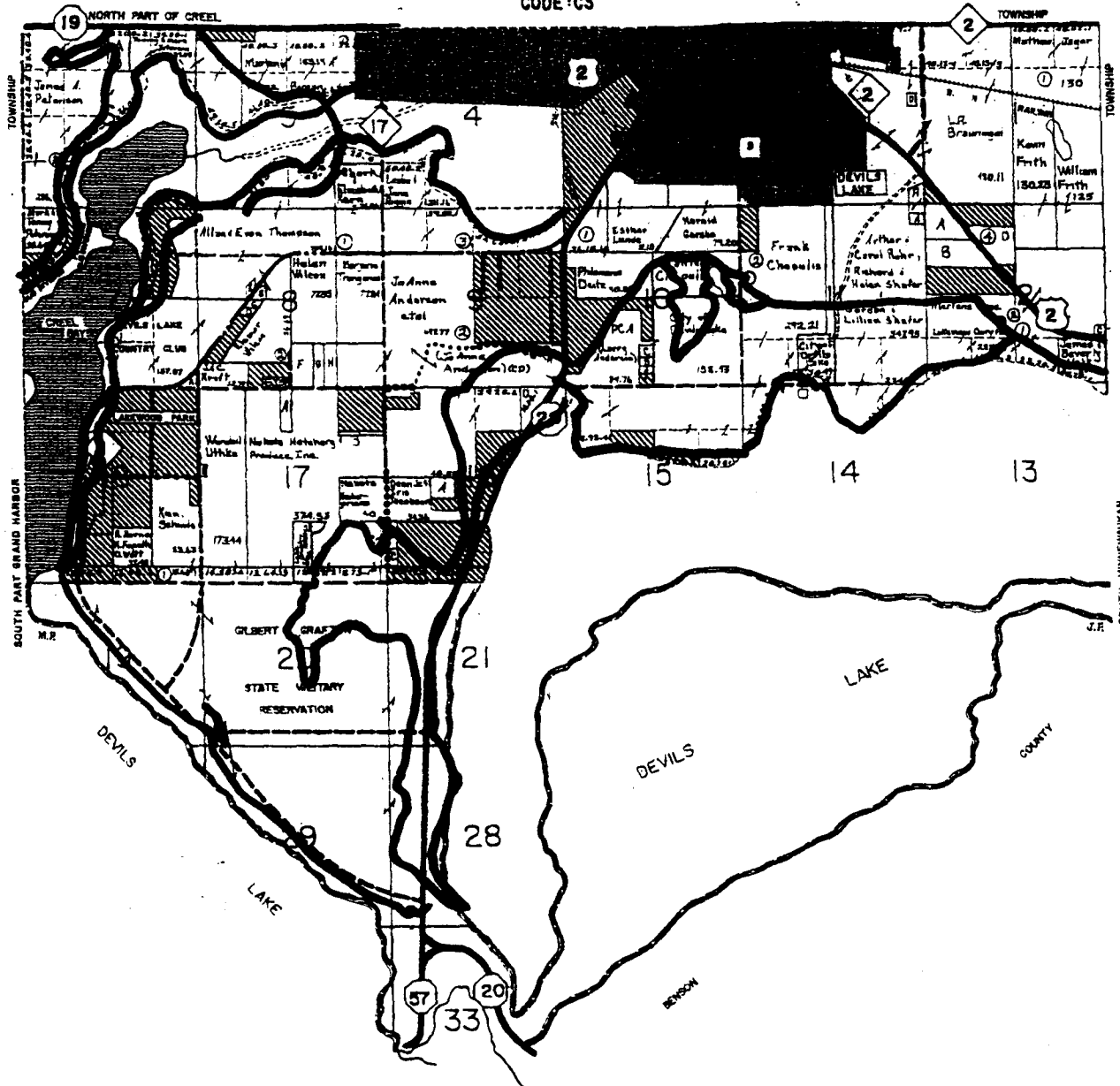
MAP OF CREEL

TOWNSHIP: 153 N.

(SOUTH PART)

RANGE: 64 W.

CODE: CS



CREEL SOUTH

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 5	144.0	11.2					155.2
Section 6		118.4	16.0	3.2			137.6
Section 7			81.6				81.6
Section 9		48.0					48.0
Section 10	260.8			8.0		8.0	276.8
Section 11	228.8			16.0		20.8	265.6
Section 12	78.4	16.0					94.4
Section 14		73.5					73.5
Section 15	132.8	84.8	51.2				268.8
Section 16		123.2	19.2			4.8	147.2
Section 17		27.2					27.2
Section 18			51.2				51.2
TOTALS	844.8	502.3	219.2	27.2	0.0	33.6	1627.1



MAP OF DE GROAT



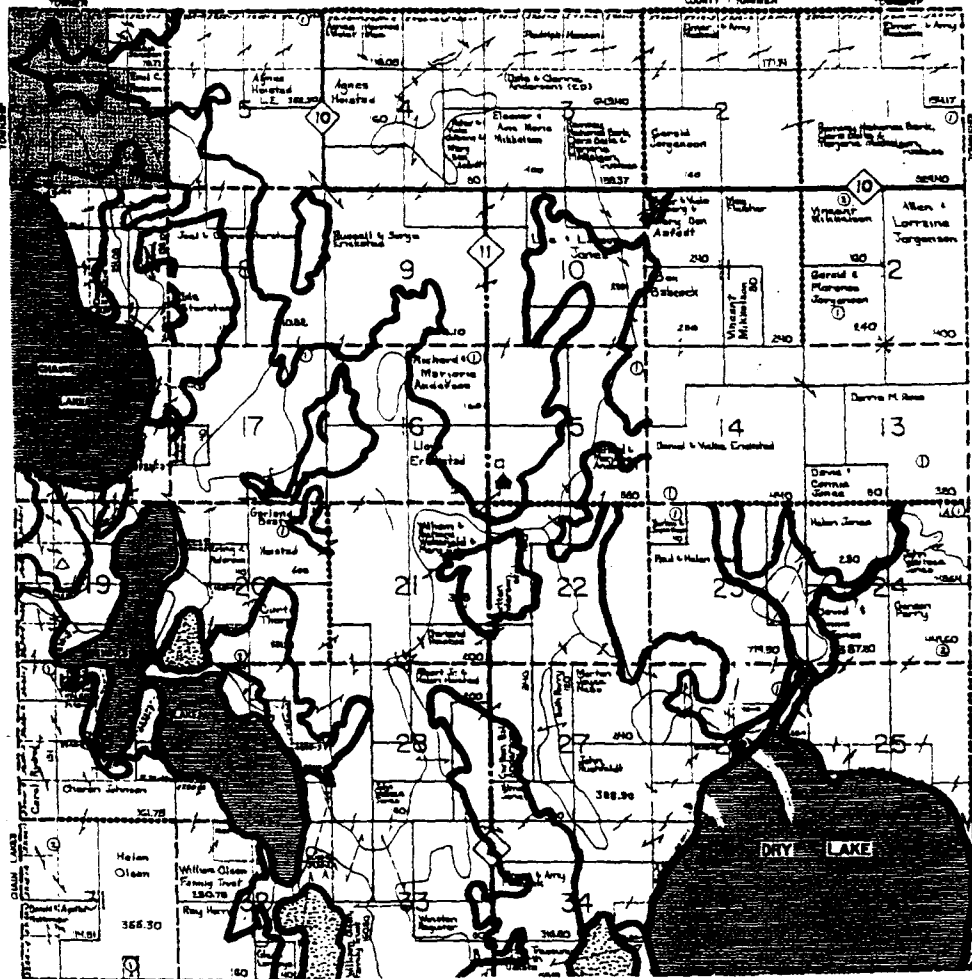
TOWNSHIP: 156 N

RANGE: 65 W

CODE: DE

COUNTY: HANCOCK

TOWNSHIP



DE GROAT

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 5	115.2						115.2
Section 6	262.4	145.6					408.0
Section 7	206.4						206.4
Section 8	212.8						212.8
Section 9	70.4						70.4
Section 10	291.2						291.2
Section 11	33.6						33.6
Section 15	259.2						259.2
Section 16	347.2						347.2
Section 17	460.8	36.8		27.2		3.2	528.0
Section 18	118.4						118.4
Section 19	203.2	36.8		4.8			244.8
Section 20	454.4			12.8			467.2
Section 21	568.0						568.0
Section 22	328.0					28.8	356.8
Section 23	184.0						184.0
Section 24	43.2					48.0	91.2
Section 25	4.8						4.8
Section 26	217.6	33.6		9.6			260.8
Section 27	561.6						561.6
Section 28	494.4						494.4
Section 29	139.2						139.2
Section 30	107.2						107.2
Section 32	155.2	24.0					179.2
Section 33		585.6					585.6
Section 34	188.8					54.4	243.2
Section 35	27.2					27.2	54.4
Section 36		11.2					11.2
TOTALS	6054.4	873.6	0.0	54.4	0.0	161.6	7144.0

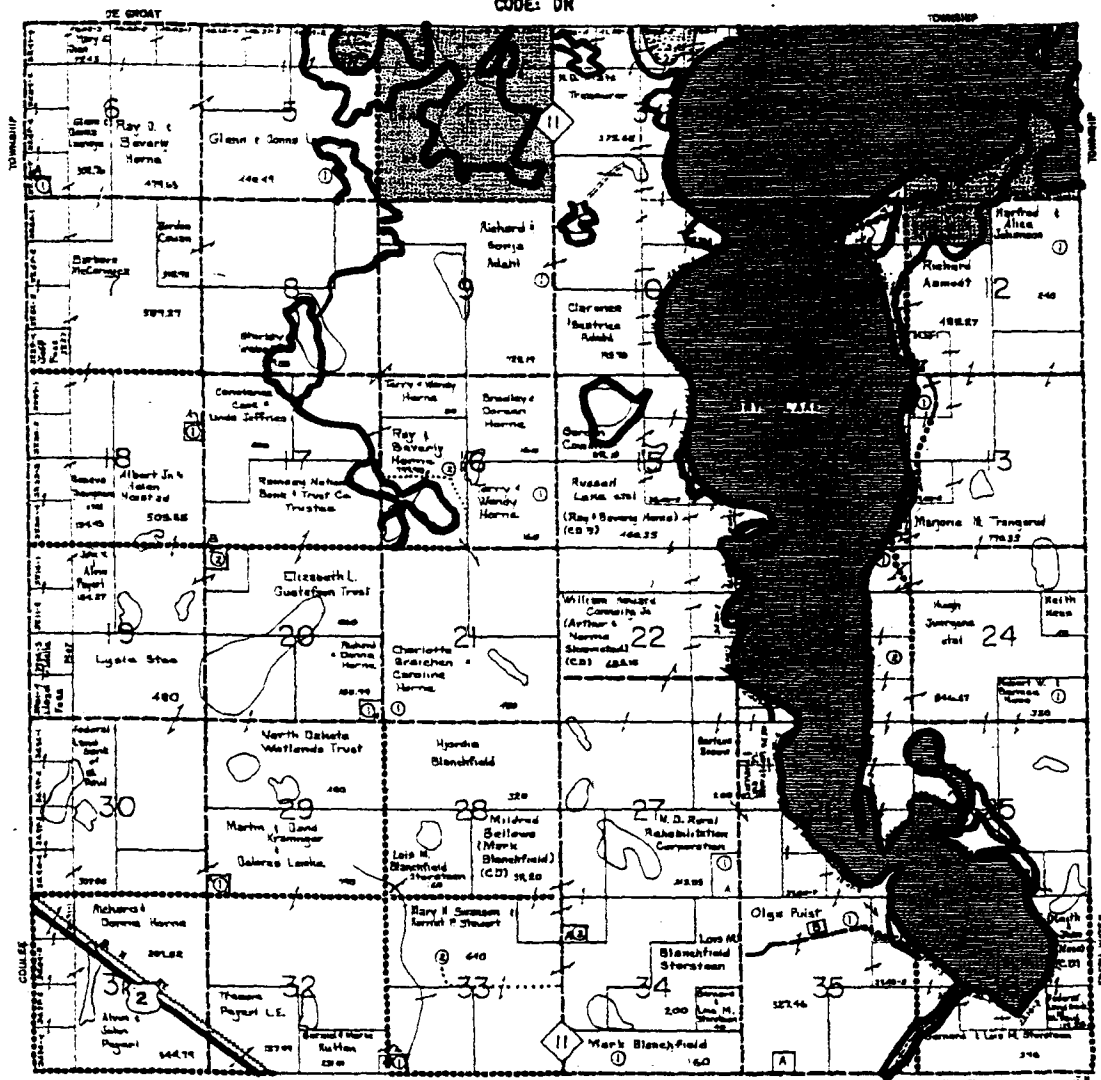


MAP OF DRY LAKE

TOWNSHIP: 155 N.

CODE: DR

RANGE: 65 W.



DRY LAKE

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 1						76.8	76.8
Section 2	3.2					9.6	12.8
Section 3	81.6						81.6
Section 4		244.8				32.0	276.8
Section 5	104.0						104.0
Section 8	59.2					11.2	70.4
Section 9	14.4						14.4
Section 10	16.0	14.4					30.4
Section 11	59.2	30.4					89.6
Section 12	14.4	67.2					81.6
Section 14		20.8					20.8
Section 15	62.4	11.2					73.6
Section 16	62.4						62.4
Section 17	40.0					14.4	54.4
Section 22	8.0						8.0
Section 23		4.8					4.8
Section 25		49.6					49.6
Section 26		12.8					12.8
Section 35		8.0				9.6	17.6
Section 36						14.4	14.4
TOTALS	524.8	464.0	0.0	0.0	0.0	168.0	1156.8



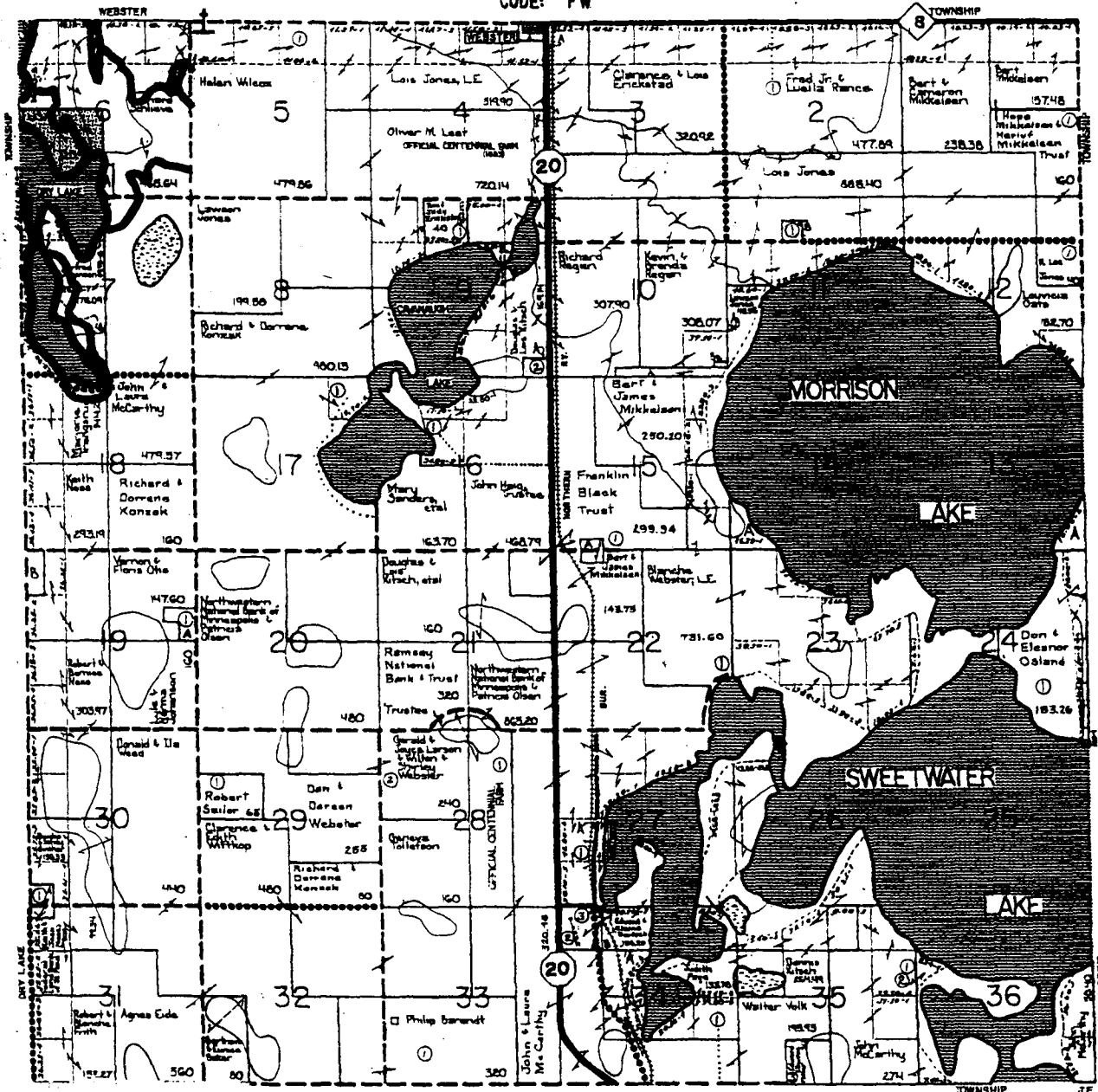
MAP OF FRESH WATER



TOWNSHIP: 155 N

RANGE: 64 W

CODE: FW



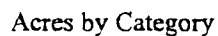
FRESHWATER

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 6	299.2					9.6	308.8
Section 7	44.8					19.2	64.0
Section 18		6.4					6.4
TOTALS	344.0	6.4	0.0	0.0	0.0	28.8	379.2



RANGE: 65 W.



Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 10	12.8						12.8
Section 11		120.0					120.0
Section 14	166.4	20.8				46.4	233.6
Section 15	12.8						12.8
Section 22	19.2	128.0					147.2
Section 23	75.2	96.0		6.4			177.6
Section 27	17.6	104.0	14.4				136.0
Section 28	20.8	38.4		4.8			64.0
Section 32	20.8	30.4					51.2
Section 33	27.2	80.0	9.6				116.8
Section 34	35.2	28.8				4.8	68.8
TOTALS	408.0	646.4	24.0	11.2	0.0	51.2	1140.8



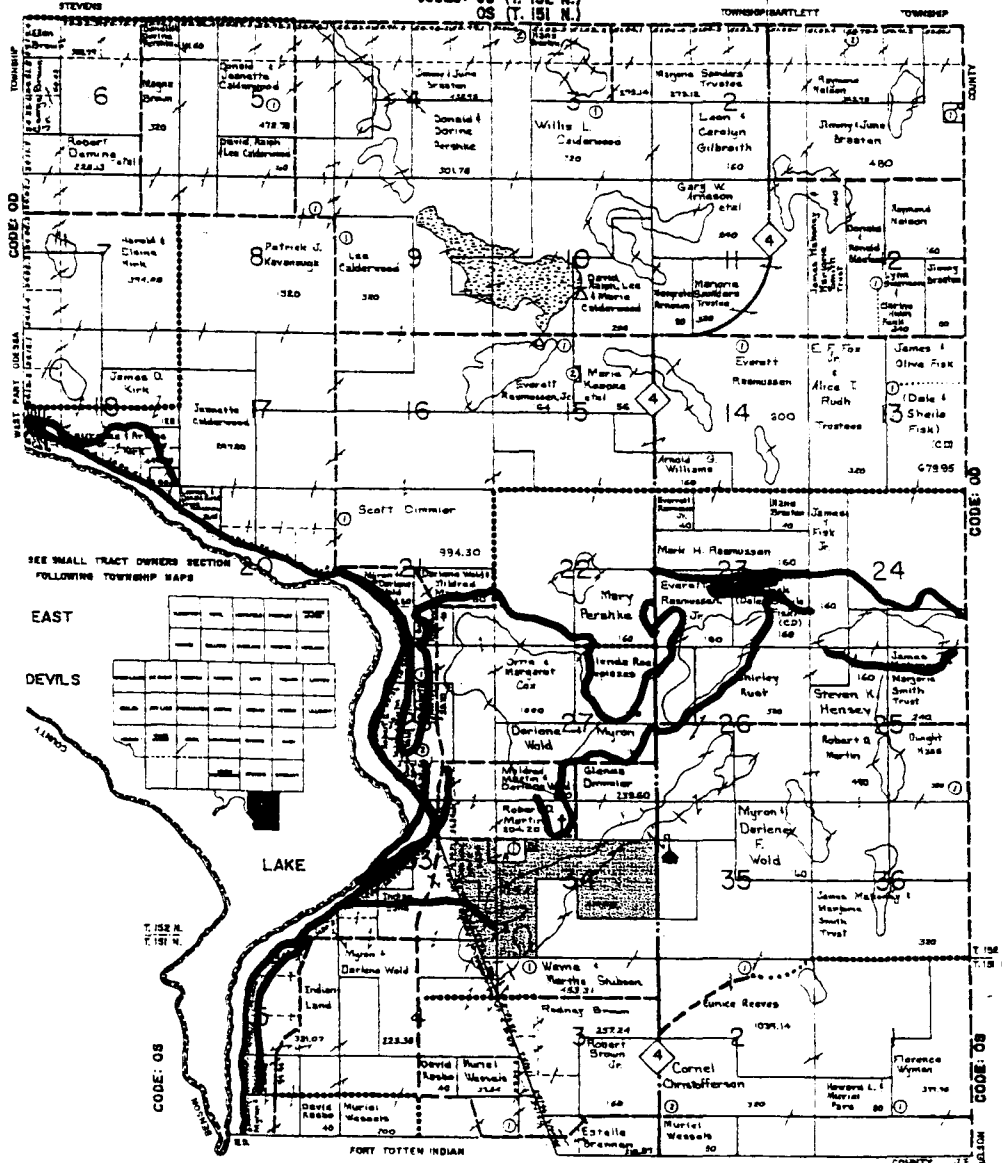
MAP OF ODESSA



TOWNSHIP: 152 & 151 N.

RANGE: 62 W.

CODES: 00 (T. 152 N.)
05 (T. 151 N.)



ODESSA

OA OD OS

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 1-OA	326.4						326.4
Section 2-OA	96.0			12.8			108.8
Section 3-OA	168.0	88.0					256.0
Section 4-OA		44.8					44.8
Section 12-OA		136.0					136.0
Section 13-OA		27.2					27.2
Section 18-OD		99.2					99.2
Section 19-OD		14.4					14.4
Section 21-OD	78.4	28.8					107.2
Section 22-OD	56.0						56.0
Section 23-OD	204.8						204.8
Section 24-OD	264.0						264.0
Section 25-OD	83.2						83.2
Section 26-OD	32.0					102.4	134.4
Section 27-OD	427.2						427.2
Section 28-OD	275.2	83.2		14.4			372.8
Section 33-OD		62.4					62.4
Section 34-OD						28.8	28.8
Section 5-OS		46.4					46.4
TOTALS	2011.2	630.4	0.0	27.2	0.0	131.2	2800.0

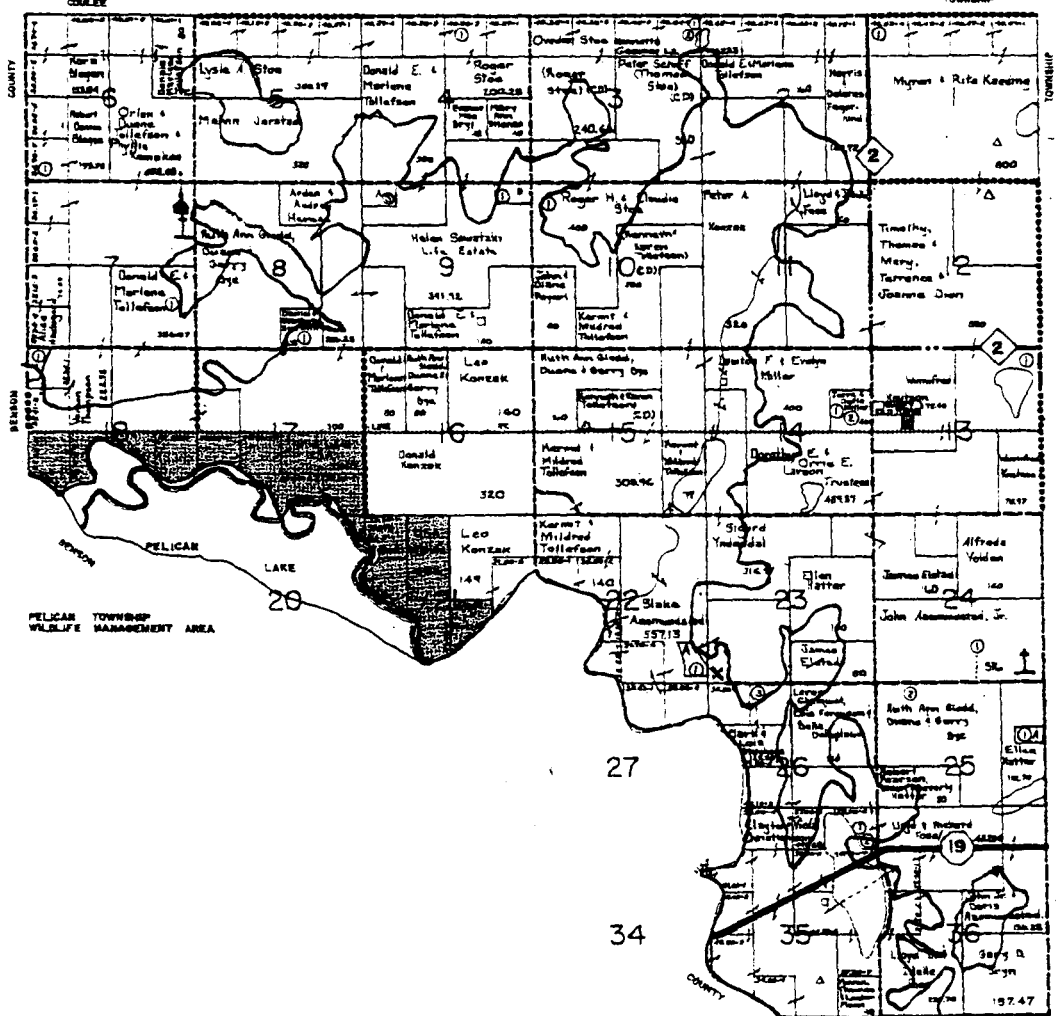


MAP OF PELICAN

TOWNSHIP: 154 N.

CODE: PE

RANGE: 66 W.



PELICAN

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 2	67.2	246.4					313.6
Section 3	97.6	88.0		6.4			192.0
Section 4	113.6						113.6
Section 5		185.6					185.6
Section 6	41.6						41.6
Section 7	108.8						108.8
Section 8	312.0	78.4					390.4
Section 9	80.0	526.4		9.6			616.0
Section 10	11.2	571.2					582.4
Section 11	70.4	380.8					451.2
Section 14	62.4	169.6		9.6			241.6
Section 15	428.8	203.2		8.0			640.0
Section 16	115.2	524.8					640.0
Section 17	94.4	364.8					459.2
Section 18	16.0	214.4					230.4
Section 19						110.4	110.4
Section 20		12.8					12.8
Section 21		384.0					384.0
Section 22		452.8					452.8
Section 23	78.4	59.2					137.6
Section 25	32.0	33.6				17.6	83.2
Section 26	67.2	206.4					273.6
Section 27		73.6					73.6
Section 35	76.8	324.8		12.8			414.4
Section 36	241.6	16.0					257.6
TOTALS	2115.2	5116.8	0.0	1346.4	0.0	128.0	7406.4

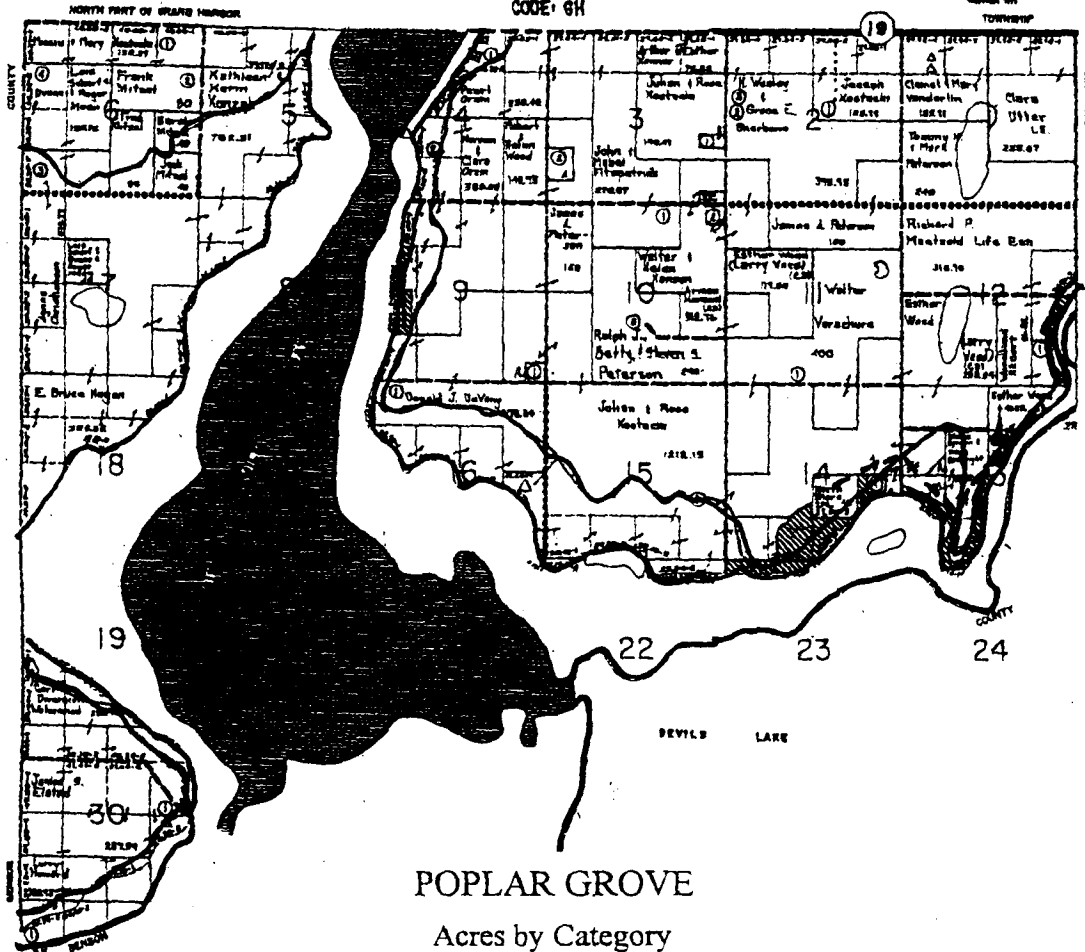


POPLAR GROVE

TOWNSHIP: 153 N.

CODE: 6H

RANGE: 68 W.



Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 4	11.2	142.2		4.8			158.2
Section 5	124.0	151.2					275.2
Section 6	147.2			9.6			156.8
Section 7	233.6	385.6					619.2
Section 8	54.4	60.8					115.2
Section 9	48.0		19.2			32.0	99.2
Section 12			30.4				30.4
Section 13	57.6		52.8			22.4	132.8
Section 14						54.4	54.4
Section 15	12.8	188.8					201.6
Section 16		206.4					206.4
Section 17		19.2					19.2
Section 18		283.2					283.2
Section 19					78.7		78.7
Section 22		57.6					57.6
Section 23			41.6				41.6
Section 24			14.4				14.4
Section 30					25.6		25.6
Section 31					51.2		51.2
TOTALS	688.8	1495.0	158.4	14.4	155.5	108.8	2620.9



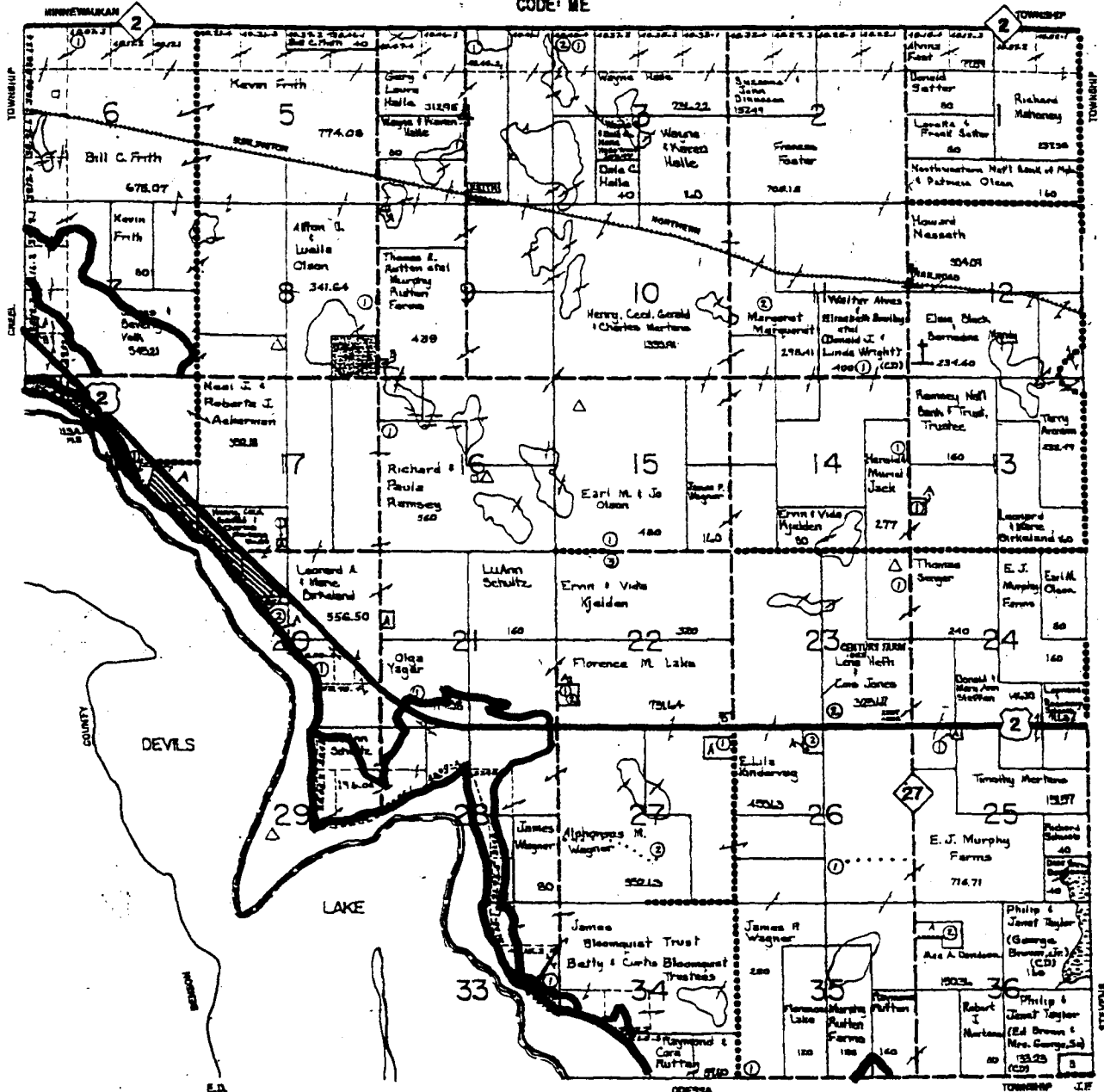
MAP OF MINNEWAUKAN

TOWNSHIP 153 N.

SOUTH

RANGE 63 W.

CODE: ME



MINNEWAUKAN SOUTH

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 7	233.6	25.6					259.2
Section 18			33.6				33.6
Section 21	9.6	24.0				28.8	62.4
Section 28	176.0	49.6					225.6
Section 29	44.8	65.6					110.4
Section 33		44.8		3.2			48.0
Section 34		14.4					14.4
TOTALS	464.0	224.0	33.6	3.2	0.0	28.8	753.6



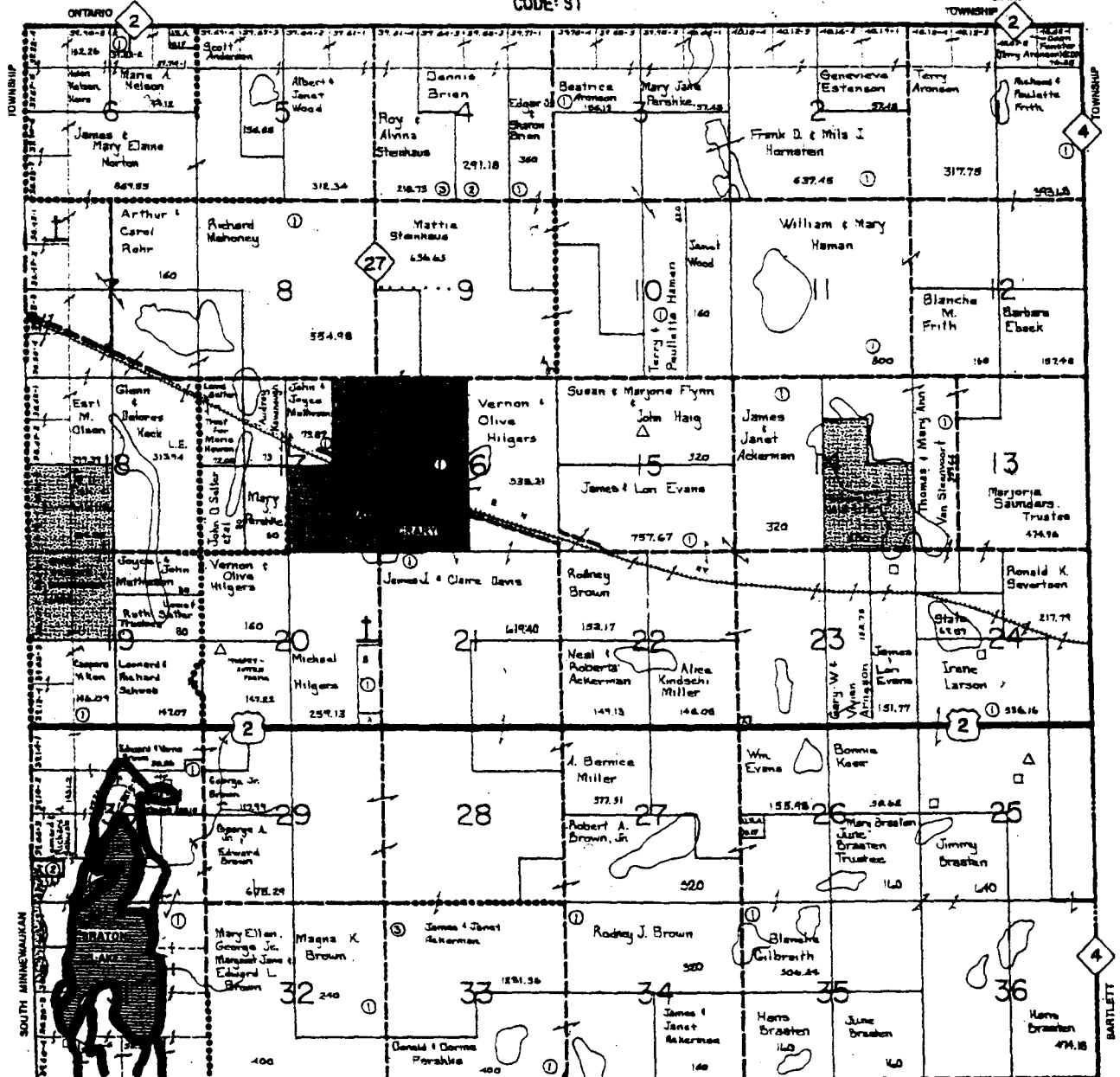
MAP OF STEVENS



TOWNSHIP: 153 N.

CODE: ST

RANGE: 62 W.



STEVENS

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 30	17.6	108.8					126.4
Section 31		57.6					57.6
							0.0
TOTALS	17.6	166.4	0.0	0.0	0.0	0.0	184.0



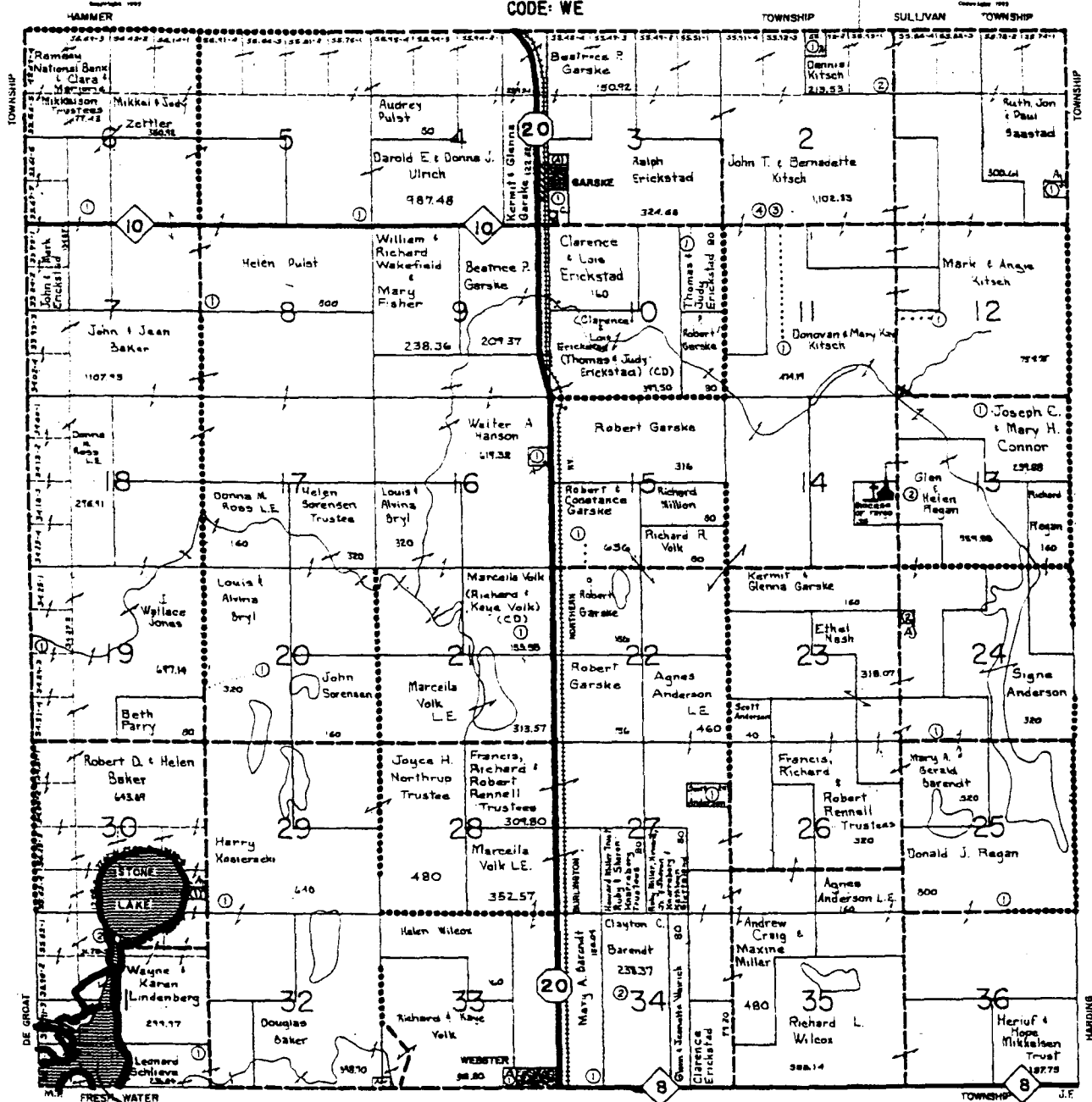
MAP OF WEBSTER



TOWNSHIP: 156 N.

CODE: WE

RANGE: 64 W.



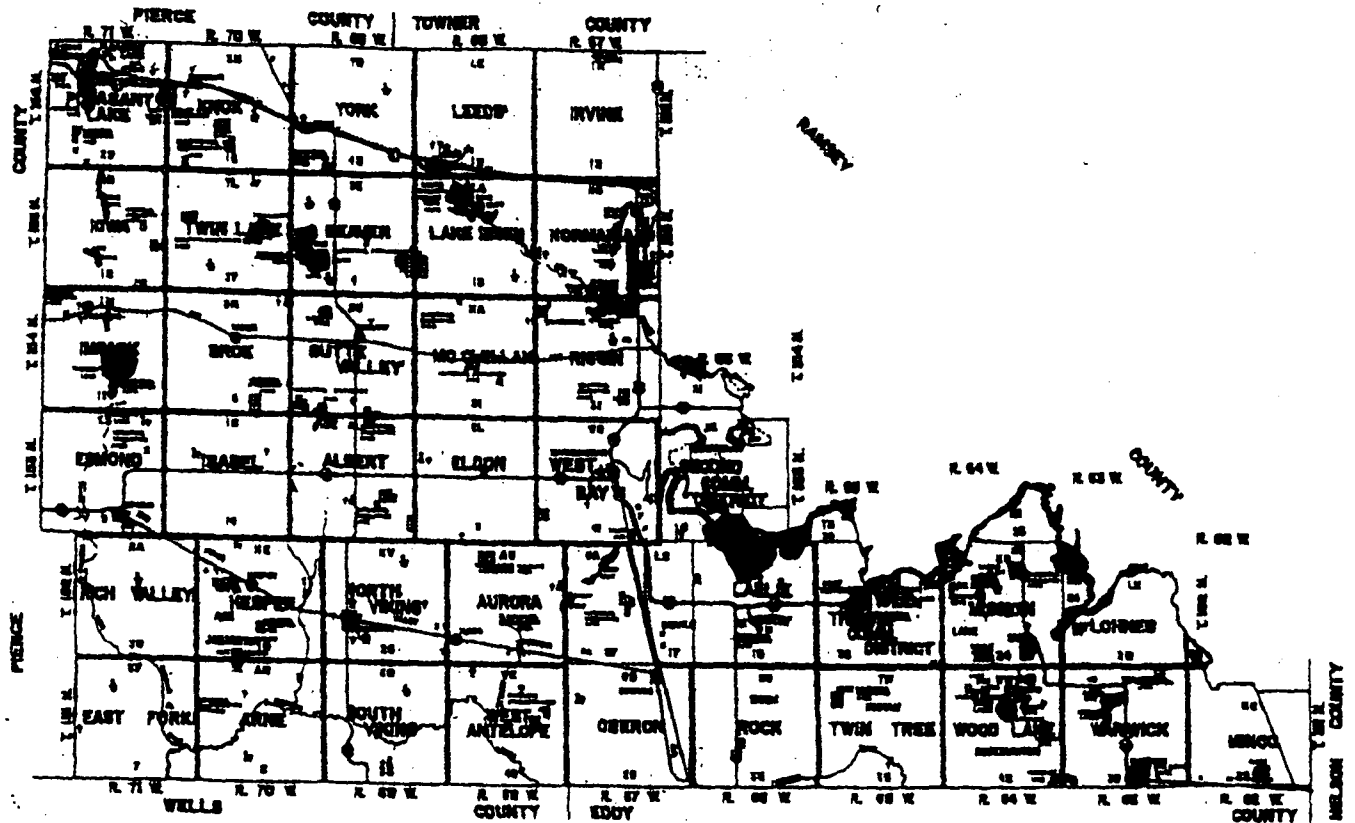
WEBSTER

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 31	28.8						28.8
TOTALS	28.8	0.0	0.0	0.0	0.0	0.0	28.8

BENSON COUNTY

NORTH DAKOTA



BENSON COUNTY INUNDATED LAND

	Developed						
	Cropland/CRP	Pasture/Hay	Residential	Farmstead	Parks/Refuge	Other	TOTAL
Irvine	27.2	0.0	0.0	0.0	0.0	0.0	27.2
Lallie	1,385.6	1,587.2	0.0	16.0	0.0	0.0	2,988.8
Lohnes	289.8	1,459.8	8.0	4.8	0.0	180.0	1,942.4
Minco	0.0	180.8	0.0	0.0	0.0	0.0	180.8
Mission	795.2	4,746.8	139.2	40.0	0.0	2,527.8	8,249.0
Normania	1,515.2	163.2	0.0	9.6	0.0	128.0	1,816.0
Riffin	3,673.6	4,128.0	0.0	33.6	0.0	140.8	7,976.0
Second Commission	944.0	2,147.2	0.0	22.4	84.8	0.0	3,198.4
Third Commission	384.0	1,553.6	56.0	11.2	0.0	393.6	2,398.4
West Bay	1,571.2	1,460.8	33.6	32.0	0.0	49.6	3,147.2
TOTAL BENSON	10,585.8	17,427.4	236.8	169.6	84.8	3,419.8	31,924.2



CODE: 1R

IRVINE

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 25	27.2						27.2
TOTALS	27.2	0.0	0.0	0.0	0.0	0.0	27.2

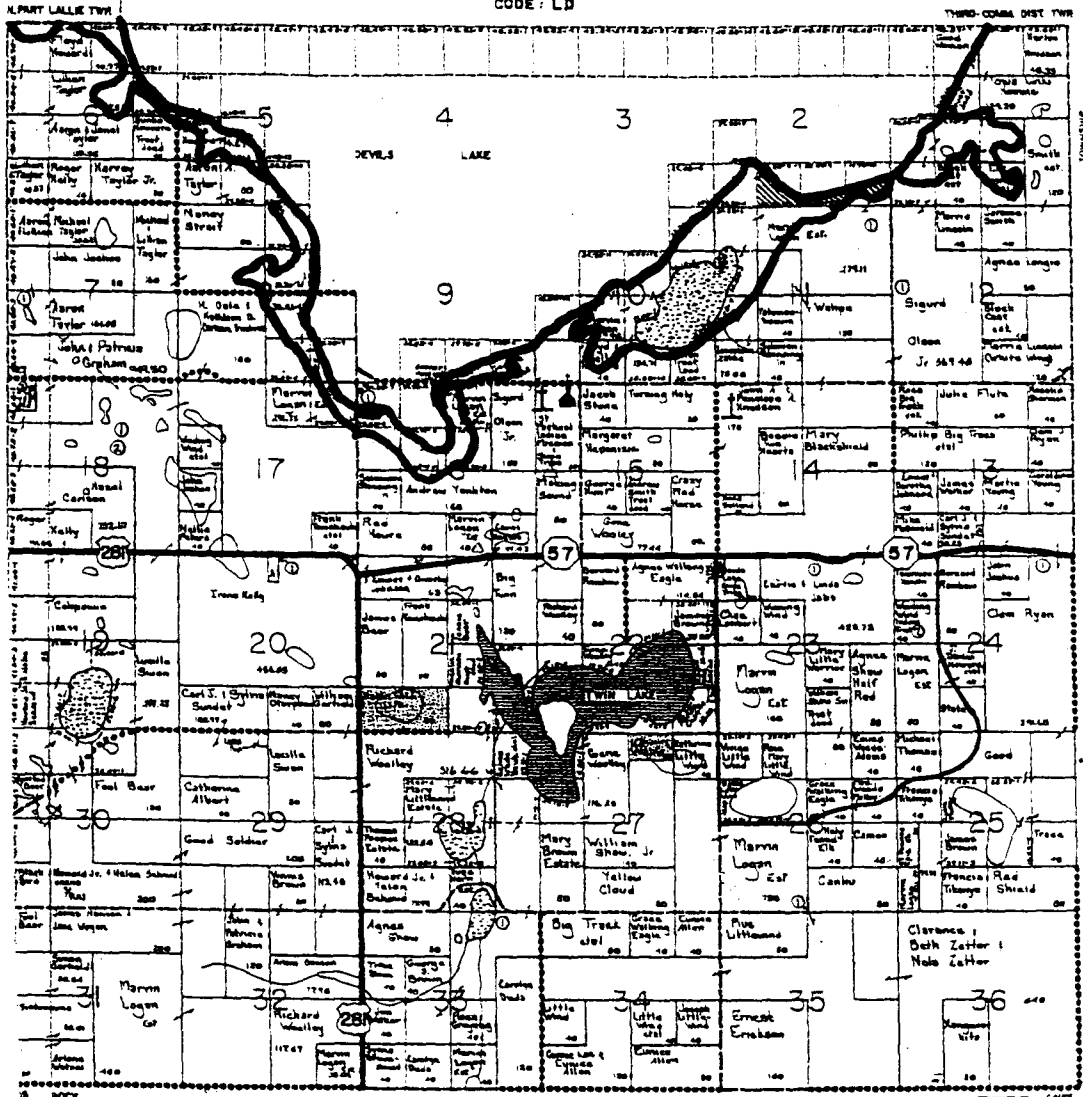


MAP OF LALLIE

TOWNSHIP: 152 N.

RANGE: 66 W.

CODE: LD



LALLIE

LC LB LD

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 18-LC		24.0					24.0
Section 19-LC		249.6					249.6
Section 29-LC		187.2					187.2
Section 30-LC	59.2	152.0		6.4			217.6
Section 31-LC	568.0	33.6		9.6			611.2
Section 32-LC	472.0	100.8					572.8
Section 1-LB	46.4	11.2					57.6
Section 2-LB	25.6						25.6
Section 1-LD		139.2					139.2
Section 2-LD	27.2	40.0					67.2
Section 5-LD	14.4	35.2					49.6
Section 6-LD	59.2	12.8					72.0
Section 8-LD	9.6	107.2					116.8
Section 9-LD		16.0					16.0
Section 10-LD	49.6	257.6					307.2
Section 11-LD	54.4	56.0					110.4
Section 16-LD		136.0					136.0
Section 17-LD		28.8					28.8
TOTALS	1385.6	1587.2	0.0	16.0	0.0	0.0	2988.8

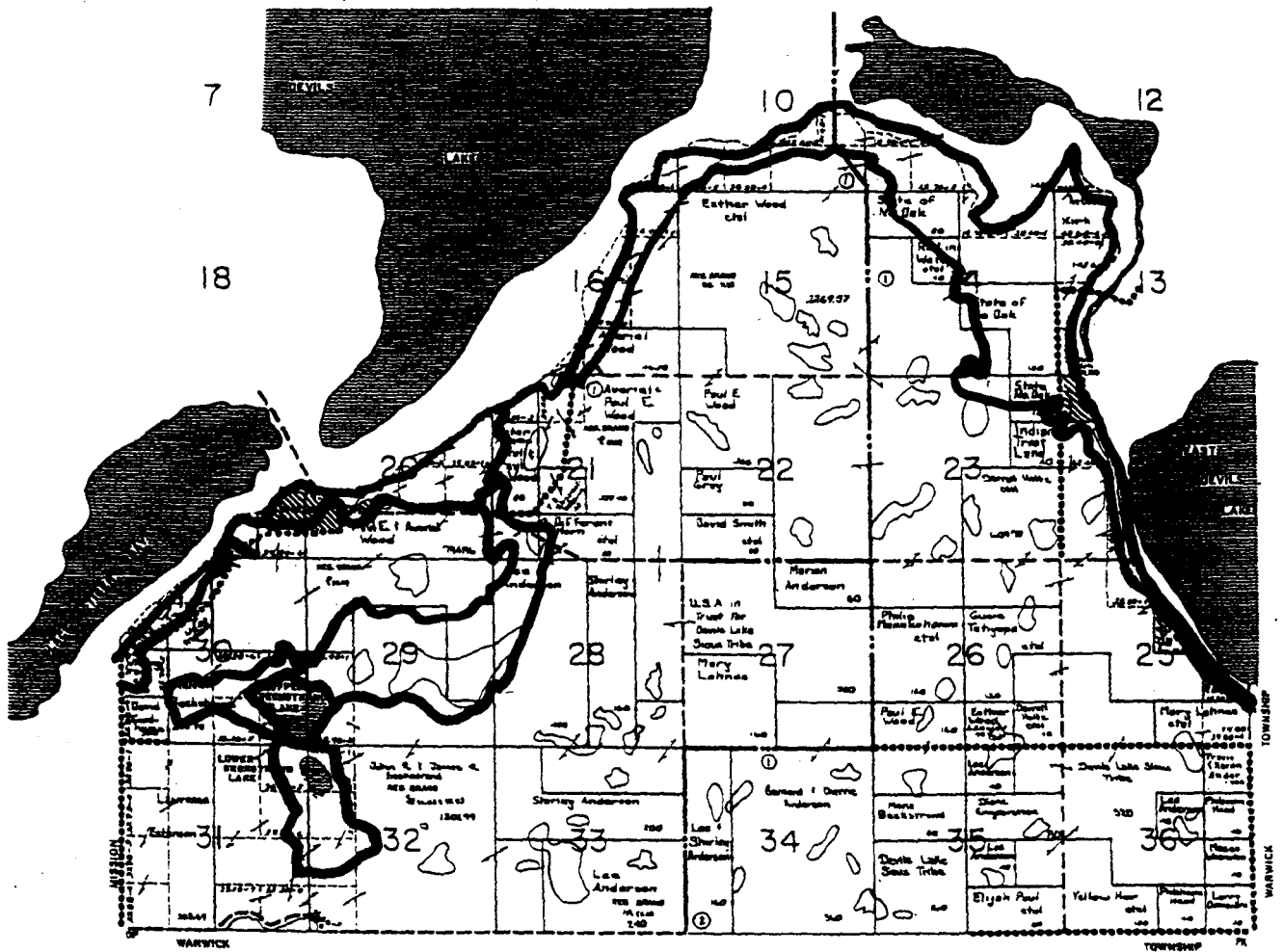


LOHNES

TOWNSHIP: 152 N.

CODE: LN

RANGE: 63 W.



LOHNES

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 9		25.6					25.6
Section 10		105.6					105.6
Section 11		113.6					113.6
Section 12		22.4					22.4
Section 13		147.2					147.2
Section 14		352.0					352.0
Section 16		83.2					83.2
Section 19		44.8					44.8
Section 20	8.0	147.2		4.8			160.0
Section 21	46.4	9.6				17.6	73.6
Section 23		67.2					67.2
Section 24	6.4	43.2	8.0				57.6
Section 25		27.2					27.2
Section 28	35.0					41.8	76.8
Section 29	194.0					95.6	289.6
Section 30		114.2				25.0	139.2
Section 31		54.4					54.4
Section 32		102.4					102.4
TOTALS	289.8	1459.8	8.0	4.8	0.0	180.0	1942.4



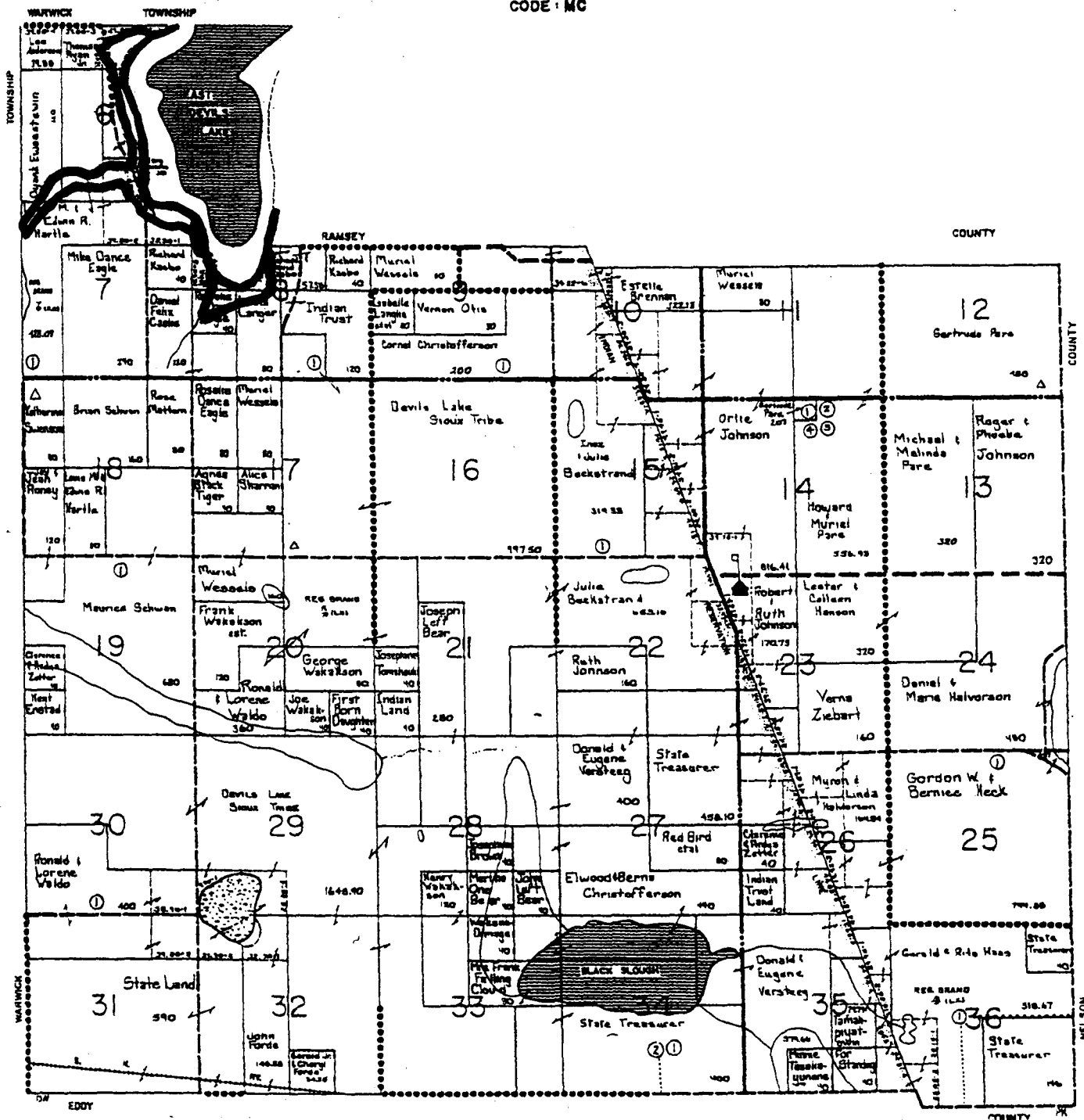
MAP OF MINCO



TOWNSHIP 161 N.

RANGE 62 W.

CODE: MC



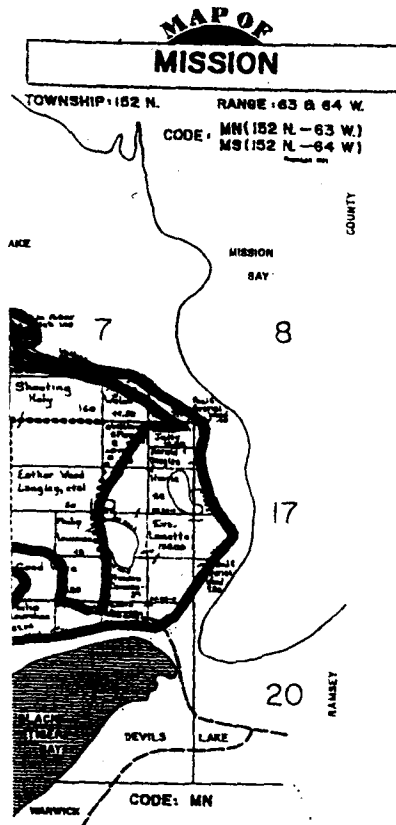
MINCO

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 6		91.2					91.2
Section 7		43.2					43.2
Section 8		46.4					46.4
TOTALS	0.0	180.8	0.0	0.0	0.0	0.0	180.8

MISSION
Total MI MS MN
Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section MN	22.4	540.8	0.0	0.0	0.0	0.0	563.2
Section MI	371.2	1872.0	124.8	27.2	0.0	518.4	2913.6
Section MS	401.6	2334.0	14.4	12.8	0.0	2009.4	4772.2
TOTALS	795.2	4746.8	139.2	40.0	0.0	2527.8	8249.0



MISSION

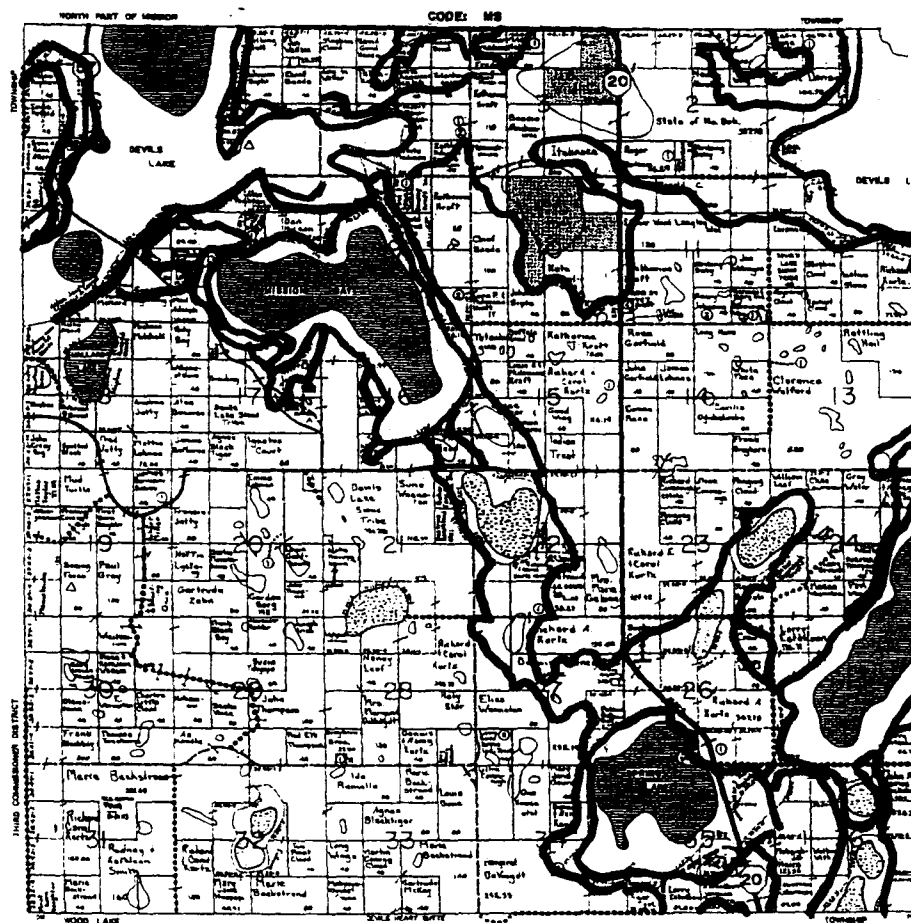
MI MS MN

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 7-MN		56.0					56.0
Section 17-MN		65.6					65.6
Section 18-MN		342.4					342.4
Section 19-M	22.4	76.8					99.2
TOTALS	22.4	540.8	0.0	0.0	0.0	0.0	563.2

**MAP OF
MISSION**

TOWNSHIP: 152 N. RANGE: 63 E. 64 W.
CODE: MN(152 N-63 W)
MS(152 N-64 W)



MISSION
MI MS MN
Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 1-MS		131.2					131.2
Section 2-MS		580.8					580.8
Section 3-MS	80.0	238.4				211.2	529.6
Section 4-MS		174.4		6.4			180.8
Section 5-MS						76.8	76.8
Section 6-MS			6.4			65.6	72.0
Section 7-MS						150.4	150.4
Section 8-MS		208.0	8.0				216.0
Section 9-MS	9.6					78.4	88.0
Section 10-MS	5.4	227.2				105.6	339.2
Section 11-MS	49.6	123.2					172.8
Section 12-MS		116.8					116.8
Section 13-MS	14.4					6.4	20.8
Section 15-MS	25.6	65.6				32.0	123.2
Section 16-MS		20.8				68.6	89.4
Section 17-MS						59.2	59.2
Section 21-MS	16.0	28.8					44.8
Section 22-MS	32.0	275.2		6.4			313.6
Section 23-MS		89.2				41.6	130.8
Section 24-MS		54.4					54.4
Section 25-MS						38.4	38.4
Section 26-MS	168.0					300.8	468.8
Section 27-MS						248.0	248.0
Section 34-MS						190.4	190.4
Section 35-MS						156.8	156.8
Section 36-MS						179.2	179.2
TOTALS	401.6	2334.0	14.4	12.8	0.0	2009.4	4772.2

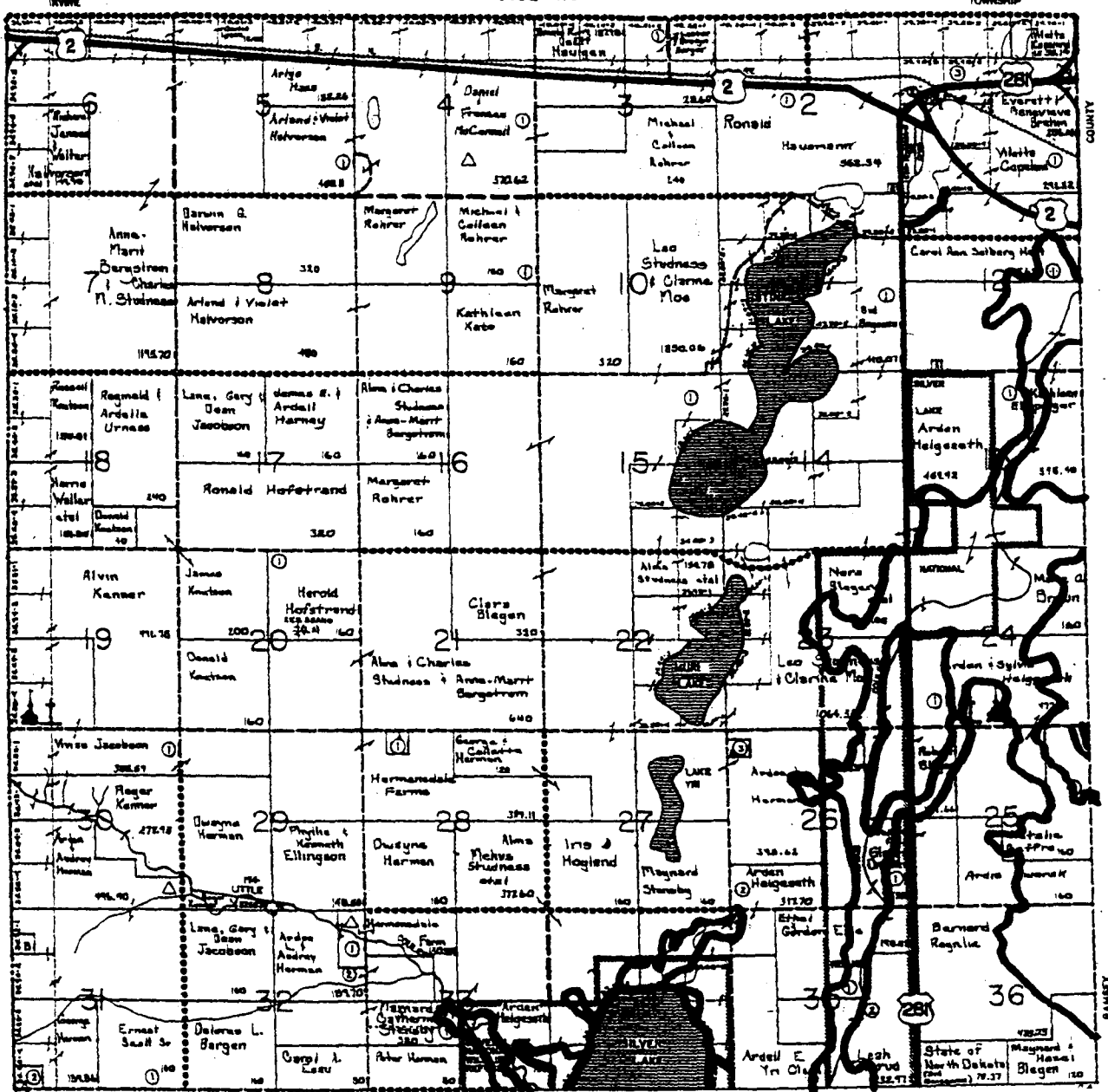


MAP OF NORMANIA

TOWNSHIP 155 N.

RANGE 67 W.

CODE: NO



NORMANIA

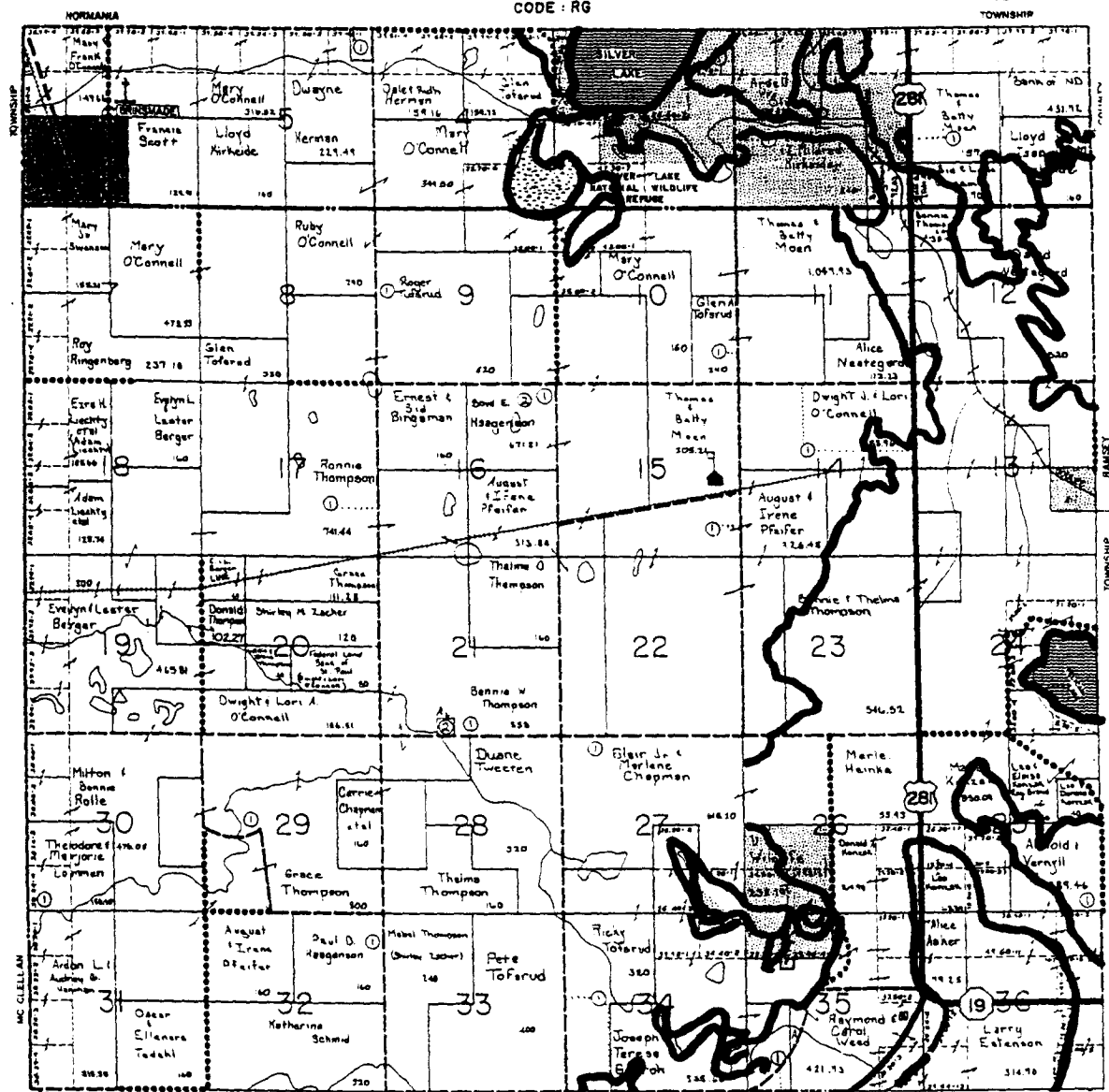
Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 12	121.6					12.8	134.4
Section 13	192.0			4.8		28.8	225.6
Section 23	118.4					17.6	136.0
Section 24	416.0					28.8	444.8
Section 25	249.6						249.6
Section 26	121.6					24.0	145.6
Section 33	17.6	46.4					64.0
Section 34	32.0	81.6					113.6
Section 35	52.8	35.2		4.8		16.0	108.8
Section 36	193.6						193.6
TOTALS	1515.2	163.2	0.0	27	9.6	0.0	1816.0



RANGE : 67 W.

CODE : RG



RIGGIN

RG RI

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 1-RG	75.2					9.6	84.8
Section 2-RG	123.2	64.0				32.0	219.2
Section 3-RG	64.0	158.4					222.4
Section 4-RG		25.6					25.6
Section 11-RG	89.6					35.2	124.8
Section 12-RG	345.6					35.2	380.8
Section 13-RG	472.0	97.6				28.8	598.4
Section 14-RG	142.4						142.4
Section 23-RG	174.4	275.2					449.6
Section 24-RG	72.0	476.8					548.8
Section 25-RG	51.2	334.4					385.6
Section 26-RG	484.8	62.4					547.2
Section 27-RG	6.4	9.6					16.0
Section 34-RG	16.0	60.8					76.8
Section 35-RG	27.2	417.6		6.4			451.2
Section 36-RG	32.0	132.8					164.8
TOTALS	2176.0	2115.2	0.0	28	6.4	0.0	4438.4

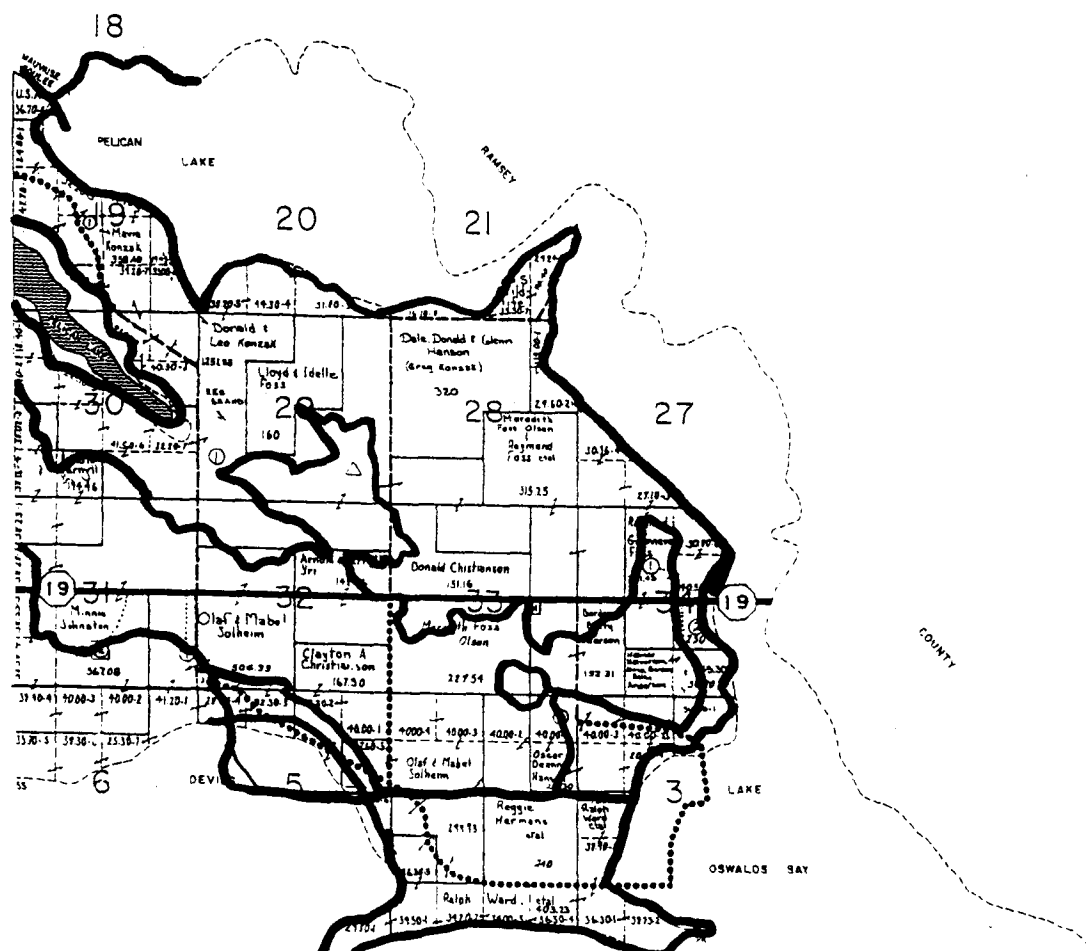


MAP OF RIGGIN

TOWNSHIP : 153 & 154 N.

RANGE : 66 W.

CODE : RI



RIGGIN

RG RI

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 18-RI		22.4					22.4
Section 19-RI	35.2	366.4		6.4			408.0
Section 20-RI		132.8					132.8
Section 21-RI		78.4					78.4
Section 27-RI	38.4	67.2					105.6
Section 28-RI	393.6	208.0					601.6
Section 29-RI	124.8	377.6					502.4
Section 30-RI	24.0	355.2		3.2			382.4
Section 31-RI	120.0	51.2					171.2
Section 32-RI	118.4						118.4
Section 33-RI	441.6	11.2					452.8
Section 34-RI	164.8	76.8		9.6			251.2
Section 3-RI	36.8	145.6					182.4
Section 4-RI		25.6		8.0			33.6
Section 5-RI		94.4					94.4
TOTALS	1497.6	2012.8	0.0	27.2	0.0	0.0	3537.6



MAP OF

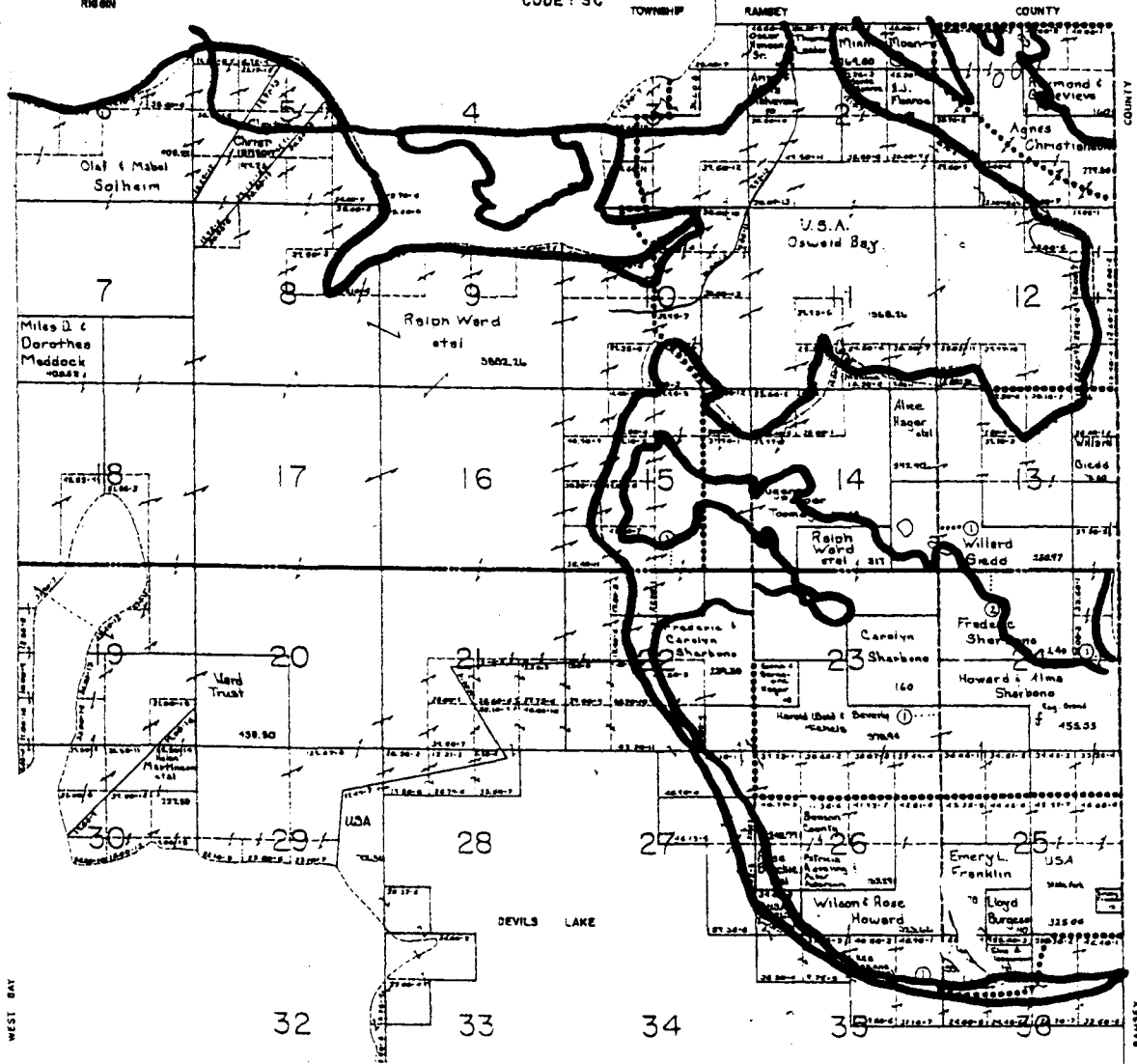
SECOND COMMISSIONER DIST.



TOWNSHIP 153 N.

RANGE 66 W

CODE: 9C



SECOND COMMISSIONER DISTRICT

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 1	291.2	134.4					425.6
Section 2	92.8	46.4		6.4			145.6
Section 3	22.4	32.0					54.4
Section 4		108.8					108.8
Section 5		11.2					11.2
Section 6	27.2	224.0					251.2
Section 8		36.8					36.8
Section 9		147.2					147.2
Section 10		129.6					129.6
Section 11		46.4					46.4
Section 12		88.0					88.0
Section 13	80.0	401.6		6.4			488.0
Section 14	156.8	288.0					444.8
Section 15	35.2	276.8		3.2			315.2
Section 22	20.8	115.2					136.0
Section 23	32.0						32.0
Section 24	185.6	30.4		6.4			222.4
Section 26		30.4					30.4
Section 36					84.8		84.8
TOTALS	944.0	2147.2	0.0	22.4	84.8	0.0	3198.4



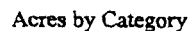
RANGE : 65 W.

20 RABBIT

TRA	LOT	NAME	LOT
11	A	Branch of N.B.	5.00
11	B	Francis O'Leary	5.00
17	A	Murray & O'Leary Johnson	1.25
17	B	Devil Lake State Manufacturing Corp.	0.13
23	B	Quinn & O'Leary	1.00
23	C	Quinn & O'Leary	1.00
23	D	Quinn & O'Leary	1.00
23	E	Quinn & O'Leary	1.00
23	F	Quinn & O'Leary	1.00
23	G	Quinn & O'Leary	1.00
23	H	Quinn & O'Leary	1.00
23	I	Quinn & O'Leary	1.00
23	J	Quinn & O'Leary	1.00
23	K	Quinn & O'Leary	1.00
23	L	Quinn & O'Leary	1.00
23	M	Quinn & O'Leary	1.00
23	N	Quinn & O'Leary	1.00
23	O	Quinn & O'Leary	1.00
23	P	Quinn & O'Leary	1.00
23	Q	Quinn & O'Leary	1.00
23	R	Quinn & O'Leary	1.00
23	S	Quinn & O'Leary	1.00
23	T	Quinn & O'Leary	1.00
23	U	Quinn & O'Leary	1.00
23	V	Quinn & O'Leary	1.00
23	W	Quinn & O'Leary	1.00
23	X	Quinn & O'Leary	1.00
23	Y	Quinn & O'Leary	1.00
23	Z	Quinn & O'Leary	1.00

CODE: TW

COUNTY



Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 28ta		86.4					86.4
Section 29ta		67.2					67.2
Section 32ta	153.6	88.0					241.6
Section 33ta	86.4	505.6					592.0
Section 34ta			56.0				56.0
Section 1						67.2	67.2
Section 5	17.6	209.6		11.2			238.4
Section 6	44.8	166.4				33.6	244.8
Section 7	81.6	40.0					121.6
Section 8		390.4					390.4
Section 12						158.4	158.4
Section 13						25.6	25.6
Section 16						92.8	92.8
Section 17						16.0	16.0
TOTALS	384.0	1553.6	56.0	11.2	0.0	393.6	2398.4

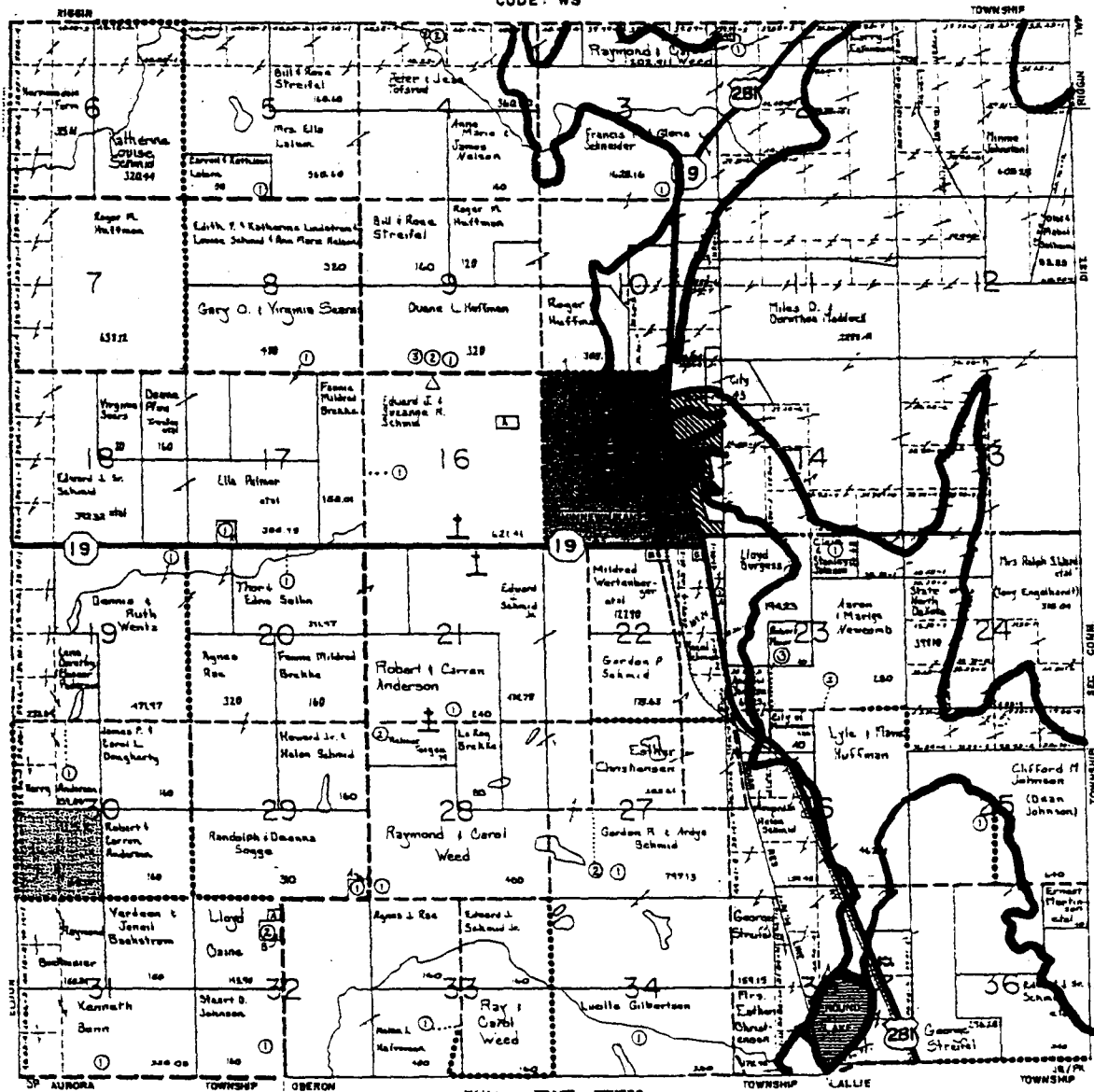


MAP OF WEST BAY

TOWNSHIP: 153N.

CODE: WS

RANGE: 67 W



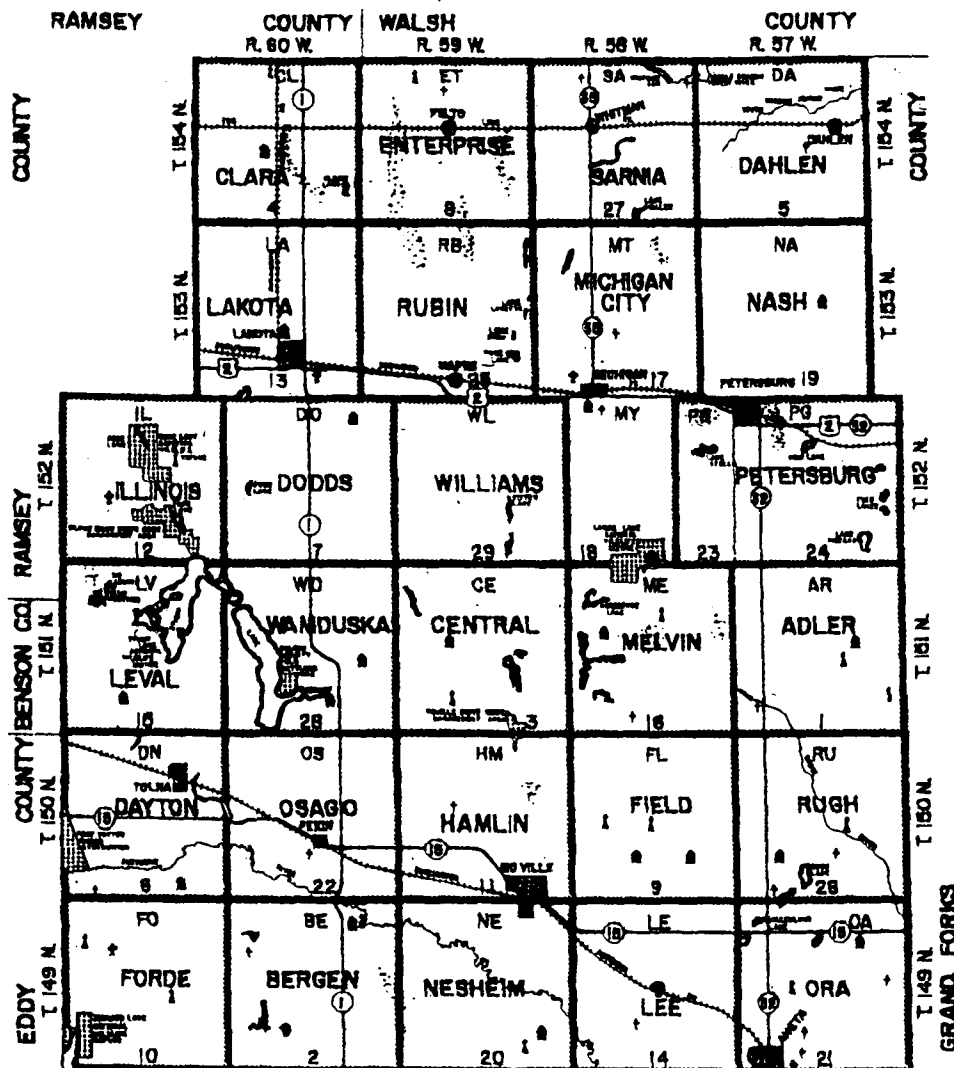
WEST BAY

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 1		100.8					100.8
Section 2		299.2					299.2
Section 3	404.8	9.6					414.4
Section 4	46.4						46.4
Section 10	54.4	166.4		6.4			227.2
Section 13		108.8					108.8
Section 14	65.6	81.6					147.2
Section 15	75.2	35.2	33.6				144.0
Section 23	100.8	412.8		22.4			536.0
Section 24		176.0					176.0
Section 25	392.0			3.2			395.2
Section 26	284.8					36.8	321.6
Section 35		70.4				12.8	83.2
Section 36	147.2						147.2
TOTALS	1571.2	1460.8	33.6	32.0	0.0	49.6	3147.2

NELSON COUNTY

NORTH DAKOTA



NELSON COUNTY
INUNDATED LAND

	Developed						
	Cropland/CRP	Pasture/Hay	Residential	Farmstead	Parks/Refuge	Other	TOTAL
Dodds	41.6	0.0	0.0	0.0	0.0	0.0	41.6
Illinois	2,118.4	470.4	0.0	0.0	0.0	839.6	3,428.4
Leval	1,860.6	801.8	0.0	19.2	0.0	542.4	3,224.0
Osago	0.0	73.6	0.0	0.0	0.0	0.0	73.6
Wamduska	233.6	582.4	0.0	0.0	54.4	91.2	961.6
TOTAL NELSON	4,254.2	1,928.2	0.0	19.2	54.4	1,473.2	7,729.2



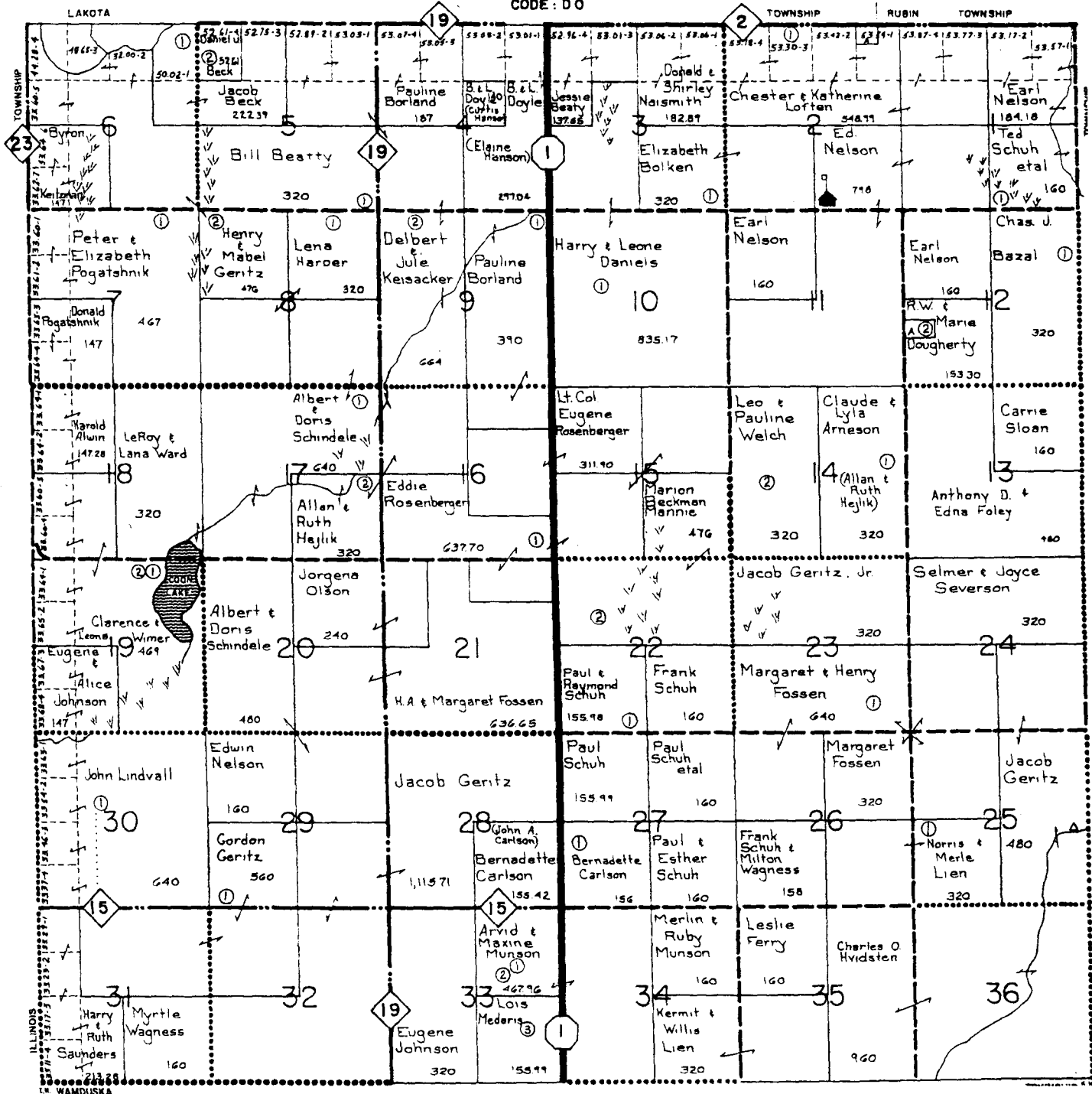
MAP OF DODDS



TOWNSHIP: 152 N

RANGE: 60 W

CODE: D0



DODDS

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 30	41.6						41.6



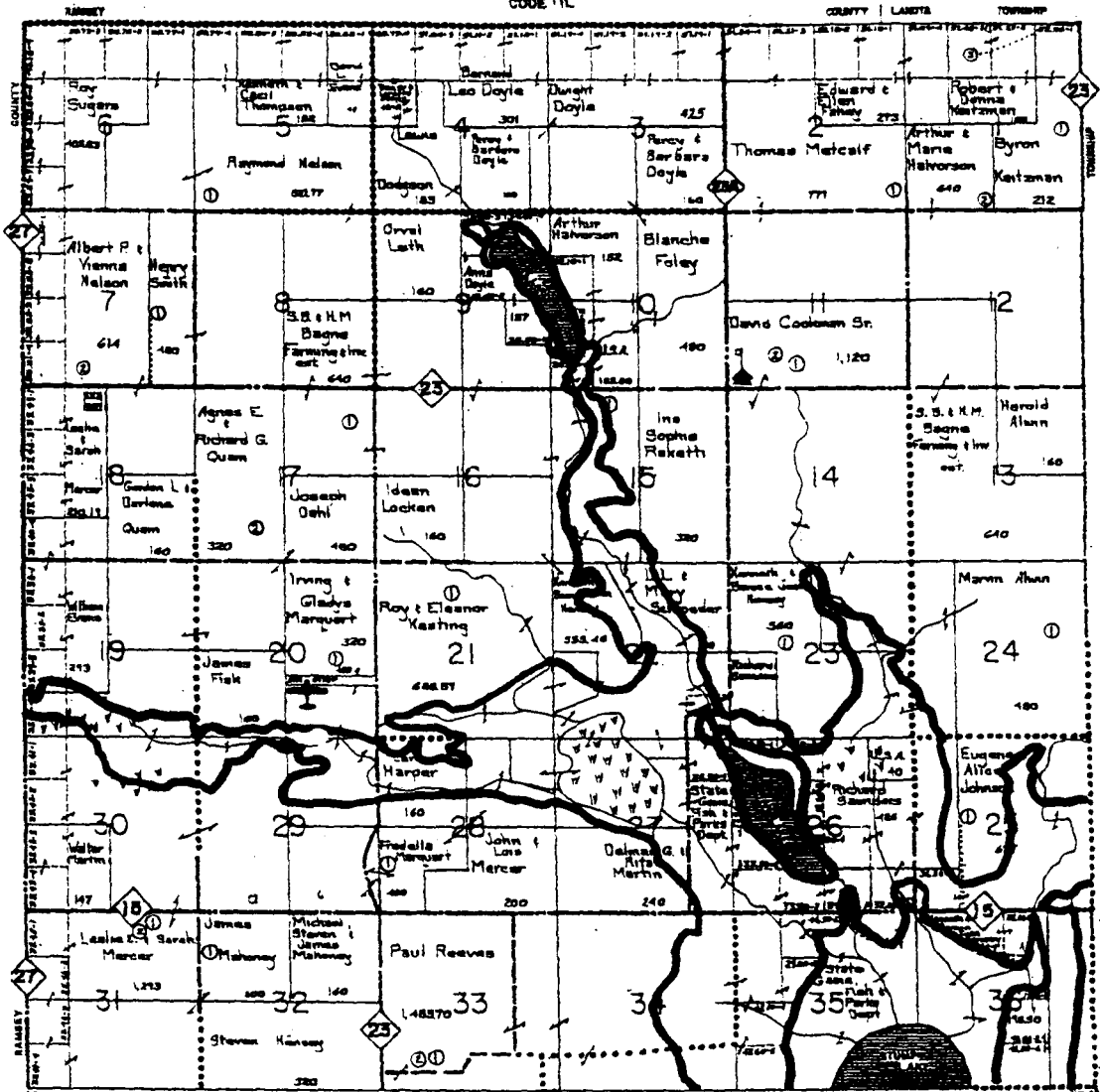
MAP OF ILLINOIS



TOWNSHIP 182 N

RANGE 61 W

CODE 11L



ILLINOIS

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 9						64.0	64.0
Section 10	8.0					9.6	17.6
Section 15	126.4						126.4
Section 19						97.6	97.6
Section 20						17.6	17.6
Section 21	136.0						136.0
Section 22	265.6	57.6				64.0	387.2
Section 23	163.2						163.2
Section 24	11.2						11.2
Section 25	241.6	104.0					345.6
Section 26	332.8					168.0	500.8
Section 27	99.2					310.0	409.2
Section 28	110.4					64.0	174.4
Section 29	97.6					27.2	124.8
Section 30	56.0						56.0
Section 34	214.4						214.4
Section 35	182.4	89.6				11.2	283.2
Section 36	73.6	219.2				6.4	299.2
TOTALS	2118.4	470.4	0.0	0.0	0.0	839.6	3428.4



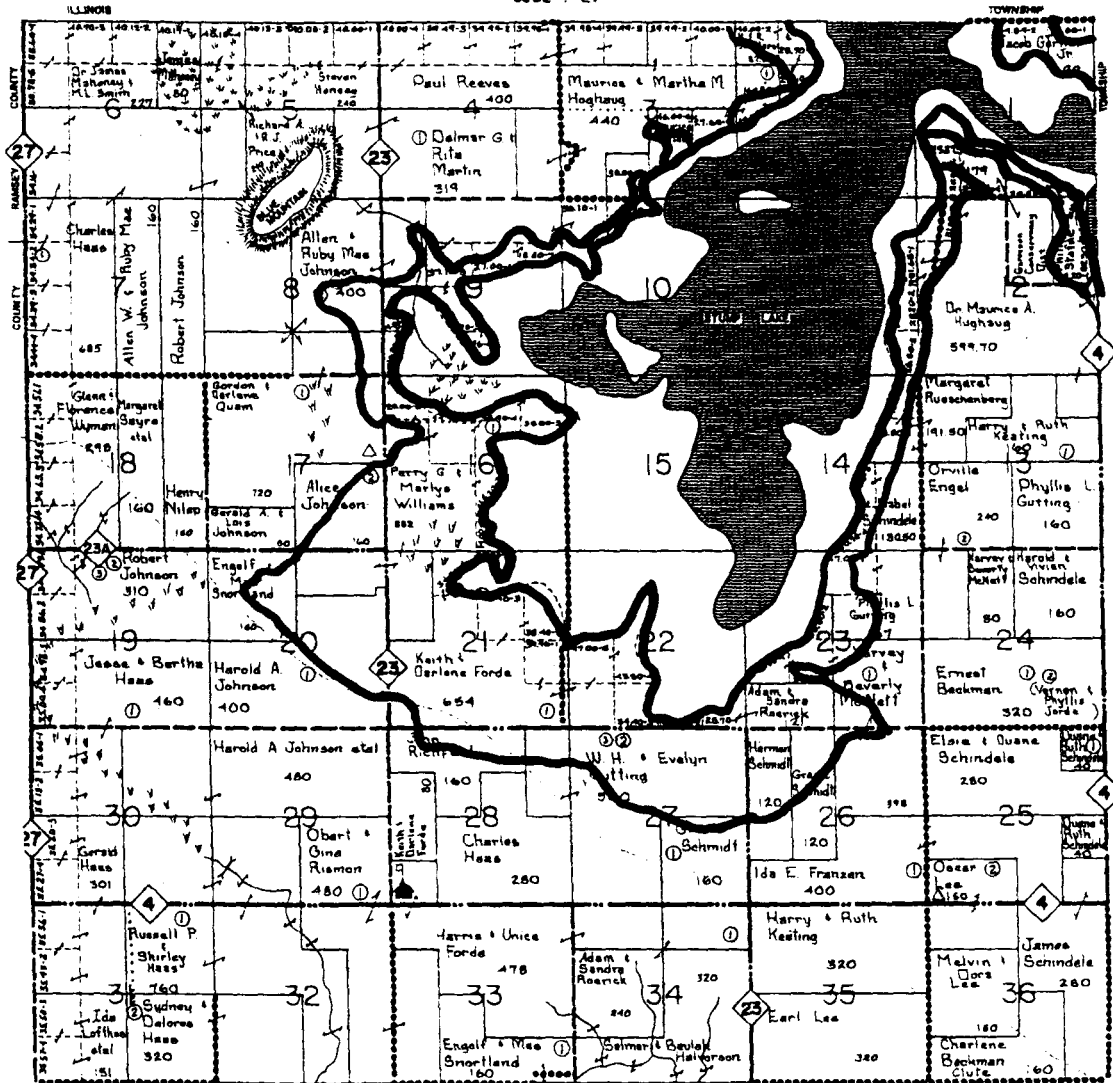
MAP OF LEVAL



TOWNSHIP : 151 N

CODE : LV

RANGE : 81 W



LEVAL

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 1	96.0	174.4					270.4
Section 2	56.0	30.4					86.4
Section 3		16.0					16.0
Section 8	76.8						76.8
Section 9	73.6	76.8					150.4
Section 10	14.4	17.6					32.0
Section 11	9.6					86.4	96.0
Section 12	17.6	60.8					78.4
Section 14		86.4					86.4
Section 16	164.8	110.4		9.6		84.8	369.6
Section 17	94.4						94.4
Section 20	235.2	62.4					297.6
Section 21	452.6	6.6		4.8		89.6	553.6
Section 22	129.6					99.2	228.8
Section 23	100.8	160.0					260.8
Section 26						128.0	128.0
Section 27	244.8			4.8		54.4	304.0
Section 28	94.4						94.4
TOTALS	1860.6	801.8	0.0	19.2	0.0	542.4	3224.0



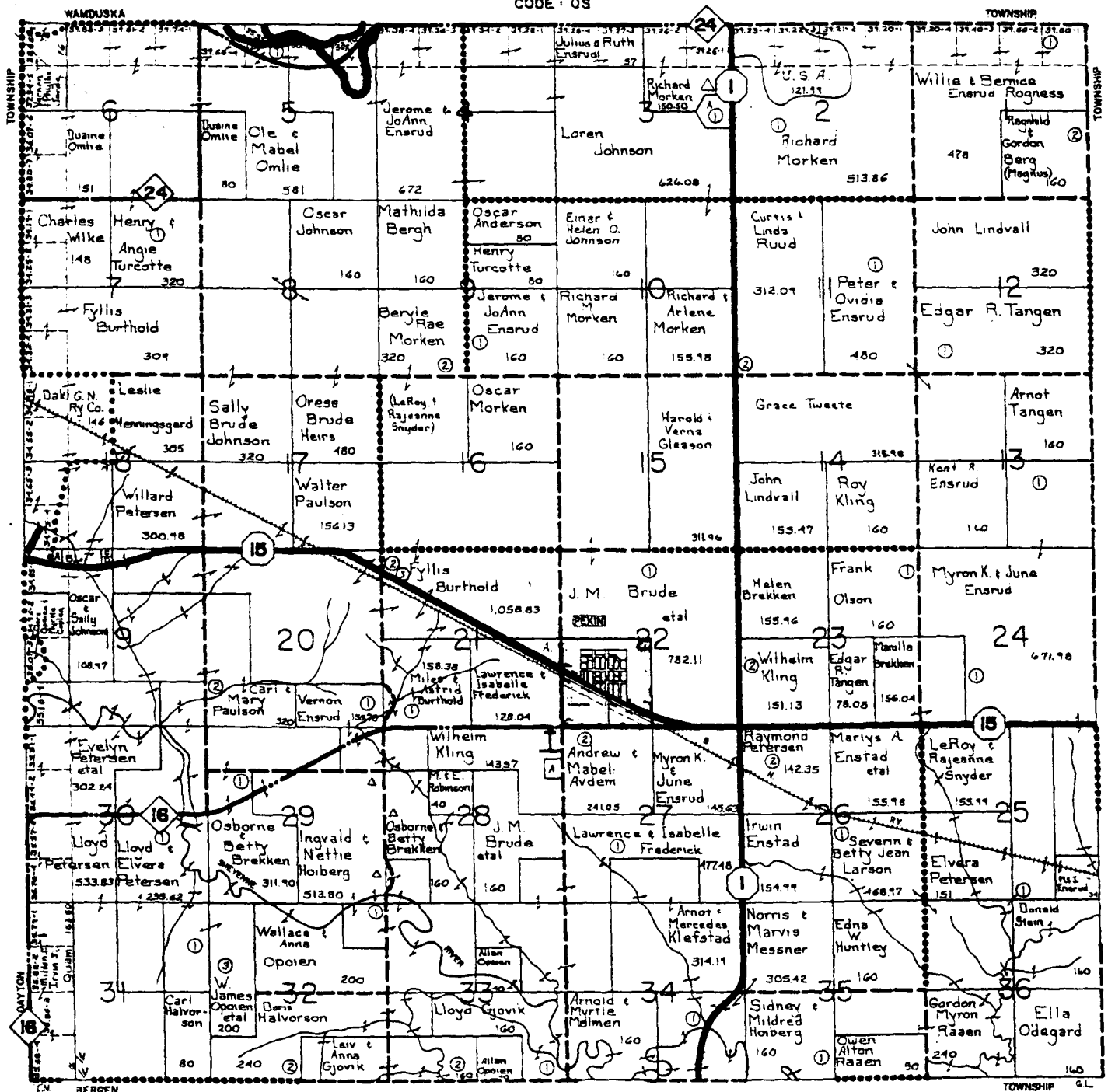
MAP OF OSAGO



TOWNSHIP: 150 N

RANGE: 60 W

CODE: OS



OSAGO

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 5		73.6					73.6

TOTALS	0.0	73.6	0.0	0.0	0.0	0.0	73.6
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MAP OF WAMDUSKA

TOWNSHIP : 151 N

CODE : WD

RANGE : 60 W

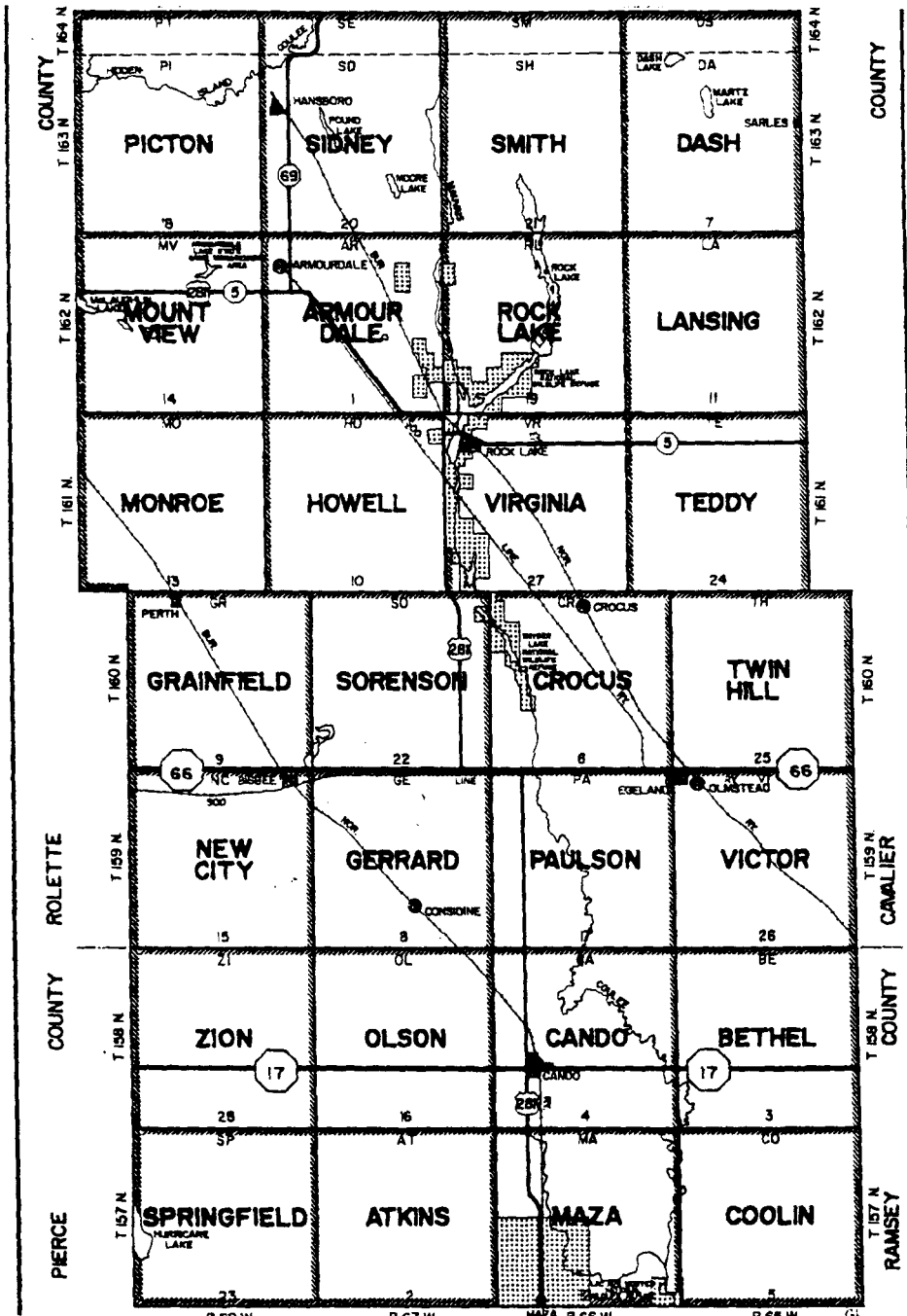


WAMDUSKA

Acres by Category

Affected Section	Cropland/ CRP	Pasture/ Hay	Developed Residential	Farmstead	Parks/ Refuge	Other	Total
Section 6	94.4	30.4					124.8
Section 7		62.4					62.4
Section 8		35.2					35.2
Section 13						22.4	22.4
Section 14	4.8					25.6	30.4
Section 17		20.8					20.8
Section 18		48.0					48.0
Section 19		17.6					17.6
Section 20		20.8					20.8
Section 22						30.4	30.4
Section 23	115.2	25.6					140.8
Section 26		24.0					24.0
Section 27		65.6					65.6
Section 28		33.6			36.8		70.4
Section 29		27.2			17.6		44.8
Section 30	19.2					12.8	32.0
Section 31		65.6					65.6
Section 32		99.2					99.2
Section 33		6.4					6.4
TOTALS	233.6	582.4	0.0	0.0	54.4	91.2	961.6

TOWNER COUNTY



TOWNER COUNTY
INUNDATED LAND

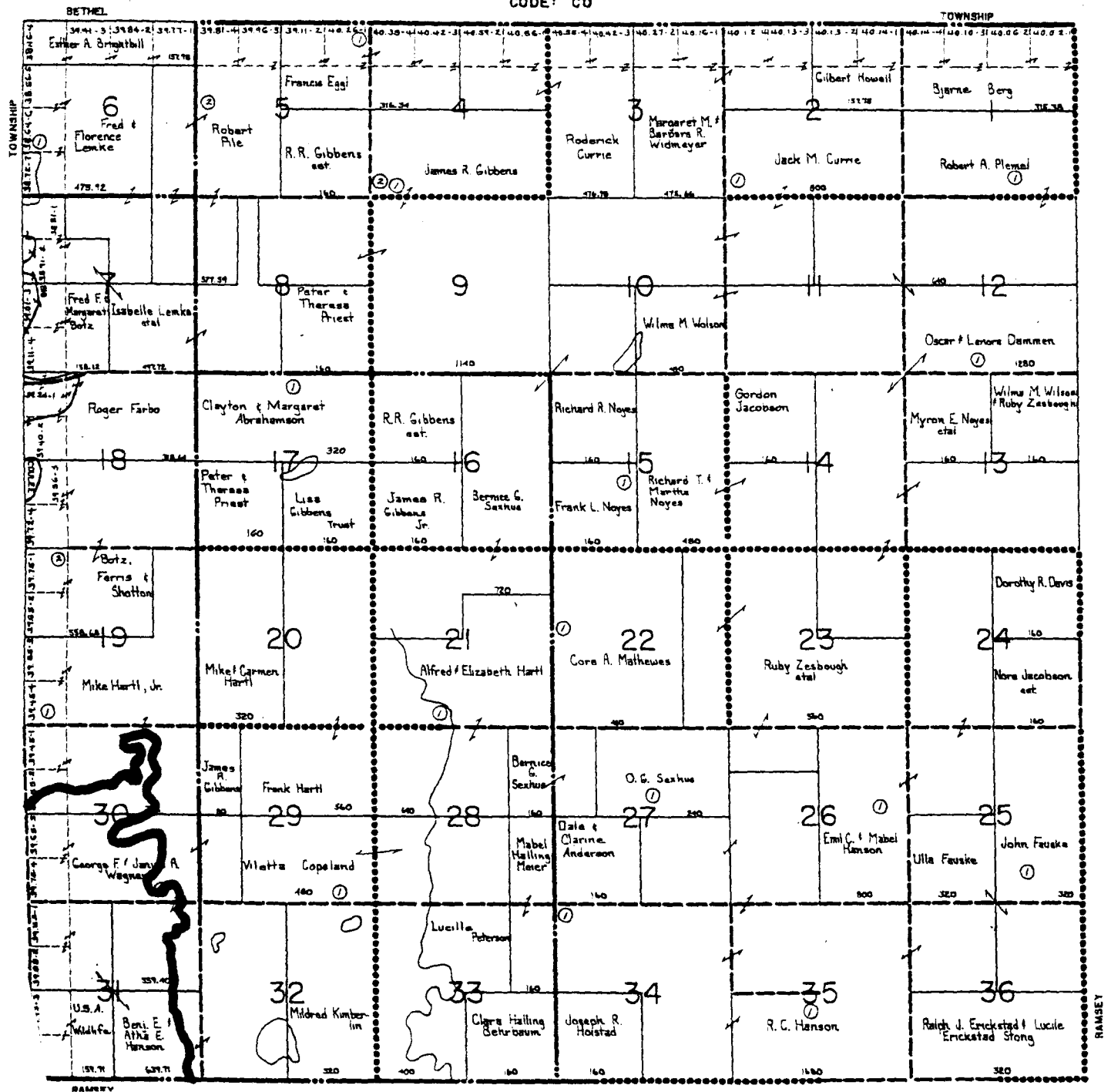
	Cropland/CRP	Developed Pasture/Hay	Residential	Farmstead	Parks/Refuge	Other	TOTAL
Coolin	896.0	6.4	0.0	6.4	0.0	0.0	908.8
Maza	1,235.2	9.6	0.0	3.2	0.0	49.6	1,297.6
TOTAL TOWNER	2,131.2	16.0	0.0	9.6	0.0	49.6	2,206.4

COOLIN

TOWNSHIP: 157 N.

RANGE: 65 W.

CODE: CO



COOLIN

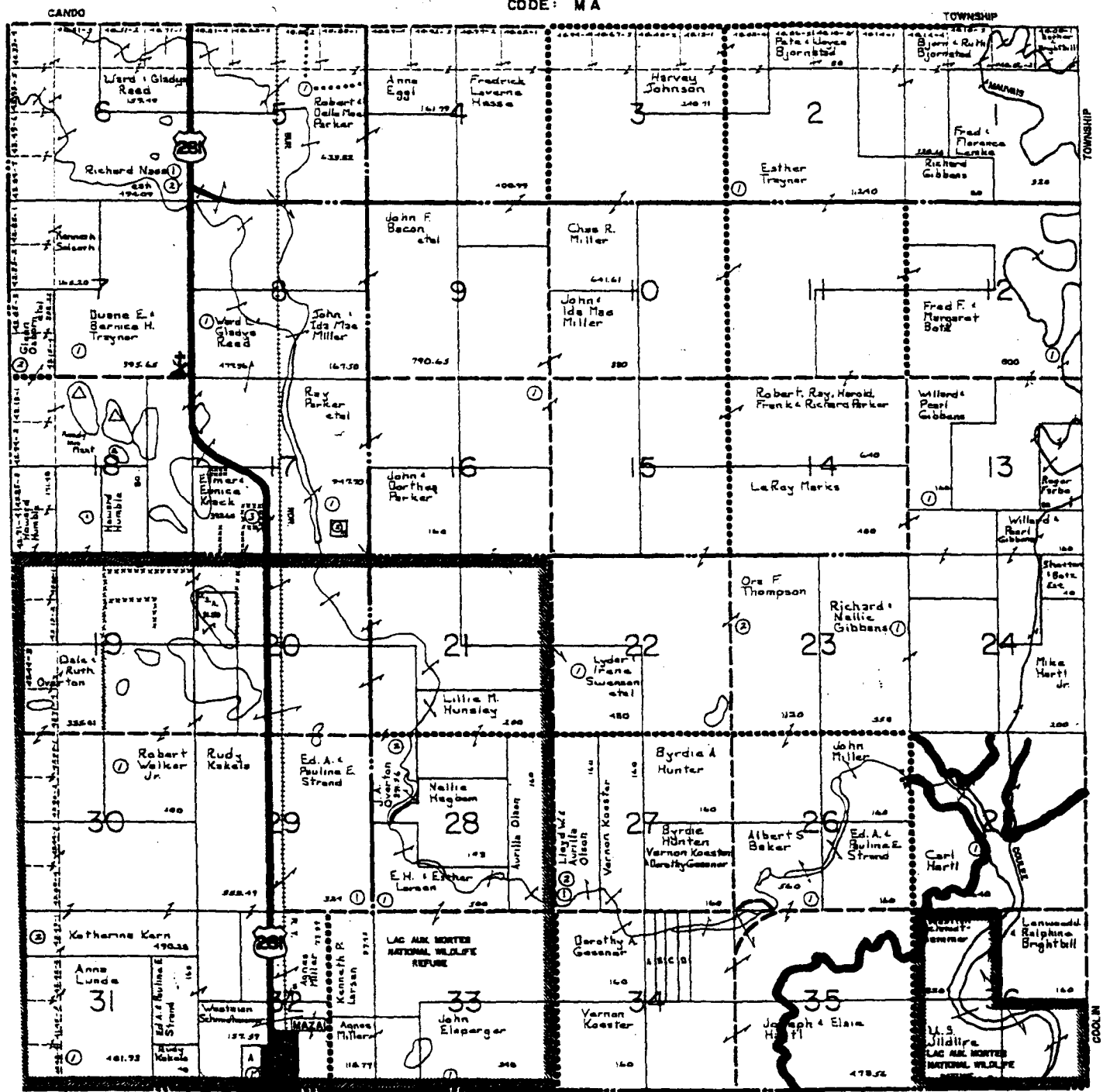
Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 30	329.6	6.4		3.2			339.2
Section 31	566.4			3.2			569.6
TOTALS	896.0	6.4	0.0	6.4	0.0	0.0	908.8

MAZA

TOWNSHIP: 157 N.

RANGE: 66 W.



MAZA

Acres by Category

Affected Section	Cropland/CRP	Pasture/Hay	Developed Residential	Farmstead	Parks/Refuge	Other	Total
Section 25	290.0					28.4	318.4
Section 35	345.6						345.6
Section 36	599.6	9.6		3.2		21.2	633.6
TOTALS	1235.2	9.6	0.0	3.2	0.0	49.6	1297.6