run by

Manager Bradley and Wildlife Aid Capel

with assistance from Merrill Hammond

SCIENTIFIC NAMES OF PLANTS IN REPORT

| | COMMON NAME | S | CIENTIFIC NAME |
|-----|--------------------------------|--------------|--|
| 1. | Sago | 1. | |
| 2. | River bullrush | 2. | |
| 3. | Hardstem bullrush | 3. | |
| 4. | American (common) three-square | 4. | |
| s. | Softstem bullrush | 5. | |
| 6. | Prairie (alkali) bullrush | 6. | |
| 7. | Sow thistle | 7. | Sonchus sp. |
| 8. | Canada thistle | 8. | Cirsium arvense |
| 9. | Buckbrush | 9. | |
| 10. | Rose | 10. | REE Rosa spp. |
| 11. | Cane | 11. | |
| 12. | Duckweed | 12. | |
| | Duckweed (2) incl. 12 and | 13. | Lemna trisulca (star duckweed) |
| | Cattail | 14. | Typha spp. |
| | Sedge | 15. | Carex spp. |
| - | Alisma | 16. | |
| | White-top | 17. | Schloachloa festucacea |
| | Cord grass | 18. | Spartina sp. |
| • | Sweet clover | 19. | * * |
| 20. | Arrowhead | 20. | Sagittaria spp. |
| | Slough grass | 21. | |
| 22. | | 22. | |
| - | Water milfoil | 23. | |
| | Claspingleaf pondweed | 24. | |
| | Spike-rush | 25. | The state of the s |
| - | Dock | 26. | |
| | Blue lettuce | 27. | ?Lactuca |
| | Flixweed | 28. | ? |
| | Peppergrass | 29. | ?Lepidium |
| | Wild barley | 3 0 • | |
| 31. | Wild millet | 31. | Echinochloa sp. |

DENSITY KEY

* is moderately dense

** is medium dense

*** is dense

**** is exceptionally dense

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UNIT 1 Transect North West to East
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gauge reading 12.02

3' Remainder of Transect A B

Segment Vegetation

A River bullrush and softstem bullrush

B Open water

Unit 1 Trnasect South West to East

25' 170' 625' 400' 20' 360' 40' A B C D E F G

Segment Vegetation

A Predominantly river bullrush with some softstem

B Sago, fairly dense (4' water depth to land)

C open water

D Seatterings of sago

E Sago dense (31 of water)

F Occasional sago

G Sago dense (3' of water to land)

| UNIT | 2 Trans | ect | East to | West | | ga u | ge read: | ing 9.0 |)6 | | |
|----------|------------|----------|-----------------|--------------|-----------|-----------|------------|------------------|-----------|----------|--|
| 75' A | 10 ° B | 25' C | 25' D | 65† E | 40 ' F | 50 ° G | 255 ° H | 4 0' I | 30 ¹ J | 45' K | |
| 235' | 140 ' M | 200 ¹ | 245 ' | 2 0 ' | 10 1 | 20 ° | | | | | |

| Segment | Water Repth | Vegetation |
|---------|-----------------|---|
| A | land | sow and canada thistle, buckbrush, rose, & upland weeds |
| В | land | Phraginites |
| C | 0-36* | Phragmites, and duckweed |
| D | 36-48 | Sago*, and duckweed |
| E | 48/ to 40" | Duckweed |
| F | 40-36" | Sago*, duckweed |
| G | 36-24" | Sago*, duckweed, and dead cattail |
| I G | 24 " | Sago, duckweed, cattail (dead),,and softstem |
| IH T | 24 "-40 " | Softstem **, and river bullrushes, sedge, cattail, Alisma |
| IK | 40 ⁿ | Sago (thin) |
| J | open water | Sago (very thin) |
| K | ÉRED | Sago*** |
| L | • | Softstem** and river bullrush, with a little sage |
| M | | Sago*** |
| N | open water | No vegetation |
| 0 | _ | Sago*** |
| P | 25 - 0" | White-top, river bullrush |
| Q | land | White-top |
| R | land | Upland grasses and weeds |

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UNIT 3 Transect - East to West
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gauge reading 9.04

| 5' | 30 ¹ | 15' | 140' | 185' | 1550' |
|----|------|-----|------|------|-------|
| A | В | C | D | E | F |

| Segment | Water Depth | Vegetation |
|---------|-------------------|---|
| A | land | Cord grass |
| В | 0-30 ⁿ | Softstem*** and hardstem bullrushes, and River** bullrush |
| C | 30-36" | Sago*** |
| D | 36"≠ | no vegetation |
| E. | 42* | Sago*** best seeding on refuge |
| F | | Interspersion of softetem and sago mostly with a little river bullrush and Alisma |

No emergents at shoreline

UNIT 4 North Transect West to East gauge reading 9.16

5' --- 385' A B C

| Segment | Water Depth | <u>Vegetation</u> |
|---------|-------------|-------------------------------|
| A | land | Cord grass |
| В | | Open water with no vegetation |
| C | 54"-land | Sago (sparse to medium dense) |

UNIT 4 South Transect West to East gauge reading 9.16

| Segment | Water Depth | Vegetation |
|---------|-------------|-----------------------|
| A | land-32" | Cord grass |
| В | 32-66" | Sagp (dense) *** |
| C | 66"≠ | No vegetation |
| D | 60-land | Sago (thin) |
| | | No emergents on shore |

UNIT 4-A - East to West gauge reading 9.16

| 25' A | 20 ' B | 50 ' C | D | 20 ¹ E | 20 ¹ F | 8 () ' G | 40 † H | | |
|----------|------------------|-----------|---|-----------|-----------|--------------------|------------|----------|--|
| Segemnt | Water | Depth | Vegeta | tion | | | | | |
| A | 0-18" | | River | bullrush | h | | | | |
| B | 18-30 | 1 | River and softstem bullrushes, duckweed | | | | | | |
| C | 30-36 | t | No vegetation | | | | | | |
| D | 36-26 | • | Sago*** (well seeded) | | | | | | |
| E | 26-15" | 1 | River and hardstem bullrushes (sparse) | | | | | | |
| F | 15 -0 " | | | | | | ushes, and | duckweed | |
| G | land | | cord | | | | • | | |
| H | land | | Upland | weeds | | | | | |

| UNIT 6 | Transec | t 33540 | to 3354 | 1 | gat | age readin | ng 5.72 | | | |
|---------|-------------------|---------|--|---|---------|---------------|-------------|----------------------|--|--|
| 901 | 351 | 25' | 60 ¹ | | 4.4 | 210' | 60 ' | 30 ' | | |
| A | B | C | D | E | R | G | Ħ | T | | |
| 11 | D | O | D | Б | 124 | u | ** | 1 | | |
| 45' | 50 ¹ | 125' | 135' | ditch | | | | | | |
| J | K | L | M | | | | | | | |
| Segemnt | Water | Depth | Vegeta | tion | | | | | | |
| A | land | | Sweet | clover, | annuals | and peren | nnials | | | |
| В | 0-14" | | Sagitt | aria, so | ftstem, | slough gr | cass, due | ckweed(2), | | |
| | | | white- | - | _ | - | - | | | |
| C | 14-20" | | Softst | em**. ca | ttail** | white-to | op, ducky | reed(2), cane **, | | |
| | | | smatrw | - | | | | | | |
| D | 20-28 | | Softst | Softstem*, river* bullrushes, duckweed (2), & | | | | | | |
| | | | | onal cat | | - | | | | |
| E | 28-46" | | Water milfoil**, claspingleaf*and sago pondweeds*, | | | | | | | |
| | | | | attered | - | _ | • | • | | |
| G | 36-30 " | 1 | | | _ | | lasping | leaf and sago | | |
| H | 30-20 M | | | | | | | ttaria, duckweed(2), | | |
| | | | | ngleaf, | | | | | | |
| I | 20-13" | • | | em**, sa | | | | | | |
| J | 13-9 ⁿ | | | | | | llrushes | , Eleocharis, | | |
| | | | | | | tail, whit | | - | | |
| K | 9-0 ¹¹ | | | | | | | shes, Sagittaria, | | |
| | | | duckwe | | | - | | | | |
| L | land | | White- | top. riv | er bull | rush(at f | irst). de | ock and annual weeds | | |
| M | land | | | weeds | | | | | | |
| • | | | - F | | | | | | | |

| UNIT 6 | Transect | 33522to | 33524 | | gaug | e reading | 5.72 | | | | |
|--------------------|-----------------|-------------------|---|---|-----------|------------|----------|-----------------|--|--|--|
| 15' | 35' | 25' | 135' | 140 ' | 120' | 175' | 100 1 | 100 1 | | | |
| A | В | С | D | E | F | G | H | I | | | |
| *) 40 ' | 30 ° | 275 | 50 ° | 100 ' | 60 ¹ | 1551 | 40 1 | | | | |
| J | K | L | M | N | 0 | P | Q | | | | |
| Segment | Water | Depth | Vegetat | lon | | | | | | | |
| A | land | | | | | | | ush near water | | | |
| В | | | | | | lrush, cat | | | | | |
| C | 14-18" | | | | | lrush, Ele | ocharis, | duckweed(2), | | | |
| _ | - | | - | Sagittaria, sago | | | | | | | |
| D | 18-24" | | River bullrush **, duckweed(2), sago(fades out) | | | | | | | | |
| E | 24-30" | | | **, water milfoil, claspingleaf, duckweed(2), | | | | | | | |
| TD | ¥ | | with some cattail and river bullrush | | | | | | | | |
| Jr F | 30 n | dud i kush | River bullhush*** and duckweed | | | | | | | | |
| G G | 30** | | | | | | ma alaam | d classingles f | | | |
| H | 24 " | | Open water alternating with sago and claspingleaf Sago and Sagittaria | | | | | | | | |
| I | 24 ⁿ | | Sago*** | | | | | | | | |
| Ĵ | 24 " | | River bul'rush*** | | | | | | | | |
| K | 24" | | Sago & water milfoil | | | | | | | | |
| L | 20-18 | • | | | | ush, white | -top**, | duckweed(2), | | | |
| M | 18-15" | 1 | | | | ullrushes | | ris, | | | |
| | | | duckwee | d(2), Sa | gittaria, | prairie t | ullrush | | | | |
| N | 15-10" | ł | | | | stem bullr | ush, Ele | ocharis*, | | | |
| | | | | | d Sagitta | ria | | | | | |
| 0 | 10-5" | | | , duckwe | | | | | | | |
| P | 5 -•• " | | | | | iver, prai | rie and | softstem | | | |
| | _ | | | hes, and | dock | | | | | | |
| Q | land | | upland | weeds | | | | | | | |

| UNIT | 6 Tran | sect 33 | 523 to | 33525 | | | gauge r | eading | 5.72 |
|----------|------------------|------------------|---------------|------------------|-------------------|------------|-----------|--------|----------|
| 10' A | 20 ' B | 25 ' C | 20 † D | 55 ' E | 175 ' F | 180 ° G | 380° H | 110' | 45' J |
| *4% | 295¹ K | 45† L | 12' M | 250 ' N | | | | | |

| Water Depth | Vegetation |
|-------------------|---|
| land | White-top, upland weeds |
| 0-6" | River bullrush |
| 6-8 ¹¹ | White-top, duckweed |
| 8 ¹¹ | Mostly open with some prairie bullrush |
| 8-9" | White-top**, prairie and river bullrush, duckweed |
| 9-15" | River** and softstem bullrush, cattail*, white-top*, cane, duckweed |
| 15-22" | White-top**, softstem* and river bullrush, cattail, duckweed(2) |
| 22-12" | Cattail**, white-top*, softstem*, duckweed(2), river Bullr. |
| 12" | White-top*, softstem*, Cattail*, riverabr., Sagittaria, duckweed |
| 12-10" | Cattail*, sedge*, river, prairie, & softstem bullrushes, sago, white-top, duckweed |
| 10-5* | Eleocharis*, sedge*, white-top*, river br., cattail, smartweed, duckweed |
| 5-2" | River***, duckweed |
| 20x 2-0" | softstem and river br. |
| land to ditch | Sedge, river br., dock, sow thistle, upland grasses |
| | land 0-6" 6-8" 8" 8-9" 9-15" 15-22" 22-12" 12" 12-10" 10-5" 5-2" 22* 2-0" |

Unit 7

Transect 33520 to 33521 (north marsh) (Hammond)

| Segment Number A | Water depth at end. Dry | Length 701 | Plants Brome, 100%. To old marsh margin, Trace of Spartina, dead river bul. |
|------------------------|-------------------------------------|---------------|--|
| В | Dry | 501 | Annual weeds, Rumex mex., blue lettuce, sow thistle, Canada thistle, flixweed, pepper grass. Dead bulrush spp. |
| C | Dry | 36 ¹ | Whitetop, Phragmites, weeds. |
| D | D ry | 1201 | Hordeum dominant, whitetop, alkali and river bulrush traces. |
| E | Dry (water starts) | 81' | Mixed marsh: Eleocharis palustris; river, softstem and alkali bulrushes; Carex; trace of cattails. |
| F (Ch | annel) 15" maxim 30' wide. Total | | · · · · · · · · · · · · · · · · · · · |
| G | l inch | 240 | River bulrush with understory of Eleocharis palustris. |
| H | 1-2 inches | 2401 | Same, but 5 to 6 feet tall and with softstem present. |
| I | ½ inch | 3001 | Solid Eleocharis palustris with scattered river bulrush. |
| J | Wet | 2641 | Eleocharis pal. dominant plus river bulrush. Weak blue lettuce. Saw Virginia rail (flushed). |
| K | Damp | J)†† • | Sow thistle dominant. Eaeocharis pal., whitetop. |

Unit 7

Transect 1. (Hammond, east marsh portion) gauge reading 2.90

Start at point directly under west side of bridge.

| Segment | Water depth Leng | th Plants | | | | |
|---|---------------------------|---|--|--|--|--|
| A | Dr y 50 | Whitetop, river bul., sow thistle. | | | | |
| В | Wet at end 50 | river bulrush (density ''') | | | | |
| C | 12" at end 50 | Same as B_{\bullet} | | | | |
| D | (14" at end of 50' |) – | | | | |
| | 65 | Same as B, but half open. | | | | |
| E | 10" at end 35 | Solid river bulrush and softstem 6 feet tall. | | | | |
| F | 9" at end 50 | Same as E. | | | | |
| G | 9" at end 50 | Same as E, reduced density, patches ofdead weeds. | | | | |
| H | 25 | Same as G. | | | | |
| I | 12" at end 25 | | | | | |
| J | 6 | | | | | |
| K | 2h ⁿ at end hh | River bulrush, softstem, trace of cattails, density 11. | | | | |
| L | 25" 35" end 50 | Softstem and river bul. density ! . | | | | |
| M | 40 ⁿ at end 50 | Softstem, density . Trace sago. (NO seed) | | | | |
| N | 42" at end 50 | Trace of softstem. | | | | |
| Edge of open water O 48" to40" No vegetation | | | | | | |
| P | | No vegetation | | | | |
| • | 20 | Hardstem bullrush | | | | |

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Unit 7

Transect 2. (Hammond, east marsh portion) gauge reading 2.90 Start at Post anchor at south corner of water easement.

| Segmen | | | ; | Plants |
|--------------|----------------------|--------------|-----|---|
| A | Dry | 201 | | 3 square bulrush, Carex, alkali bulrush, Eleocharis palustris, river bulrush. Wet edge at end of Seg- |
| | | | | ment. |
| В | 2"at e | nd 501 | | Softstem. |
| C | | 801 | | Solid river and softstem bulrush 7 feet tall. |
| D | 12 ໄ ປ aາ | t 10' | | Scattered alkali, river, and softstem bulrush with |
| | end | | | openings, moderate density. |
| E F | 24" at | - | | Same as D. |
| F | | _ | 201 | • |
| G | 34" at | | | Open water. |
| H | 37 ۇ 11 | " 501 | | Moderate softstem and river bulrush, thin whitetop. |
| I | 70u | " 501 | | Same as H. |
| J | 42 n | " 501 | | Whitetop and softstem thickens at junction of I & J. |
| | | | | J has sparce whitetop, softstem. |
| K | 41 2 " | " 50° | | Sparce fluminia, trace of softstem, Aphanizomenon |
| | | | | Mairly heavy. |
| (Boundary of | | | | ary of openwater. |
| L | 54 ⁿ | | | Sago** |
| M | 60 ^{tt} | | | Sago*** |
| N | 66" | | | "Kenmare scum" |
| 0 | 42" | | | Sago*** |
| P | 30 " | 80 1 | | White-top, sago |
| Q | 30 " | 1001 | | Sago** |
| R | 30 -0" | 45 | | Millet and river bullrush |

Unit 7

Transect 3 (Hammond, east marsh portion) (Start at lower edge or rocky slope west of underpass)

| | | Water depth | • | • , |
|---|---------|-------------------|-------------|--|
| | Segment | at end | Length | Plants |
| • | A | 11411 | 501 | Scattered wild millet, trace of river bulrush, |
| | | | | Dead weeds dominant. |
| | В | 20 [#] | 50 ! | Softstem, alkali, river bulrush, Lemna. |
| | | | | Density !!. |
| | C | 10 | 10' | Same as B. |
| | D | $50_{\rm n}$ | 401 | Same as B. |
| | E F | 50u | 10' | Dead weeds, whitetop, moderate sago (no seed). |
| | F | 26" | 301 | Same as E. |
| | G | | 201 | Same as E. |
| | H | 36" | 301 | Whitetop, moderate density. Light sago (mo seed). |
| | I J | 37" | 501 | Same as H. |
| | J | 37 ½ " | 50 ' | Same as H. Sago has light seed, some plants |
| | | | | are flowering and in bud stage. Whitetop |
| | | | | becoming thinner. |
| | K | 37 출 " | 50 ' | Same as J. |
| | L | 39 ⁱⁱ | 50' | Same as J with trace of softstem. |
| | M |)†Oμ | 501 | Whitetop and softstem both sparce. Sago in moderate density (no seed). |
| | N | | 301 | Same as M. |
| | 0 | 39" | 201 | Open water. Sago in moderate density (No seed). |
| | P | | | Sago increases in density then runs light |
| | | | | for a while, then turns dense again. |
| | Q | | 100 ' | Thin sago |
| | R | | 200 1 | solid asgo |
| | S | | 100' | Sago** with some hardstem |
| | T | | 50 1 | Sago** |
| | U | | 75† | Sago*, white-top |
| | ٧ | | 400 ' | White-top (very light) |
| | W | | 50 ° | River and prairie bul rush |
| | X | | 20 ' | River bullrush |
| | | | | |

Des Lacs Refuge

August 9, 1963

Unit 8

Gauge reading 21 2.76

Transect 33518 (Bradley & Capel)

Start at steel post on Dam 7.

50' borrow pit 6 feet deep barren
Open water to Island.... 43" deep in middle barren
of this area, 24" deep out from island

55' island, 15' river bulrush, bare, then 5' hardstem andriver bulrus h. Open water area to south shore, water 12" or less. Sago 1 plant per square yard on north portion; increasing to 2 plants per square yard on south portion. No fruit in this area.

90' river bulrush.

30' river bulrush and hardstem mixed.

20' hardstem

Old "Cattail" edge as defined in 1959 transect notes.

Transect 33519 (Hammmond)

Start at steel post, west end of Dam 7.
Mud flats plus tip of small bay at start.

Shallow water, 6-12" deep or less to south shoreline.

Water real cloudy, moderate Aphani, omenon and unid. algae.

Sago present, 1-3 plants per sq. yard---no seed.

Emergents have spread from south shoreline (old, 1959 "cattail" edge, 15 to 50' wide or more; softstem, river bulrush, and trace of cattails. Softstem seedlings 3 inches tall form a solid carpet in places.

Transect 33516 (Capel& Bradely)

170' from post across borrow pit to first sago. Sago runs 20' when it begins to change to hardstem, river br. and smartweed which ends 95' later atxaxxianax after 30' of dry land. Sago, Sagittaria, river bullrush, hardstem, and smartweed run for 90'. Dry land again with river and hardstem bullrushes for 75'. There is 80' of river and hardstem bullrush with smartweed. Then 150' of Sagittaria, smartweed, river and hardstem bullrush. The water depth throughout averaged about 4" except for the borrow pit which had about \$2 42".

Note: above-mentioned hardstem may be softstem in many instances.

Transect 33517 (Bradley & Capel) gauge reading 2.76

Start at steel post East end of Dam7.

- 170' open water over borrow pit.
- 20 ' sago*
- 25' Smartweed, sedge, river br., sago
- 25' Sagittaria, Carex, river br., smartweed
- 105' Hardstem, River, softstem (dry land)
- 40' smartweed, river br., hardstem
 - 25' River br., softstem, smartweed, sago
- 85' Sago***
- 65' Smartweed, river br., sago
- 35' River & softstem br., duckweed
- 130' Sagittaria, River & softstem br., (dry land)



Unit 2



Unit 3



Unit 4 from post 33526 on 8/19/63



Unit 6 from post 33523 on 8/19/63



North Transect Unit # 4



South Transect Unit # 1



Unit 4 from post 33528



Unit 6 from post 33522





Unit 7 from post 33520



Unit 7 transect 1



Unit 7 Transect 2



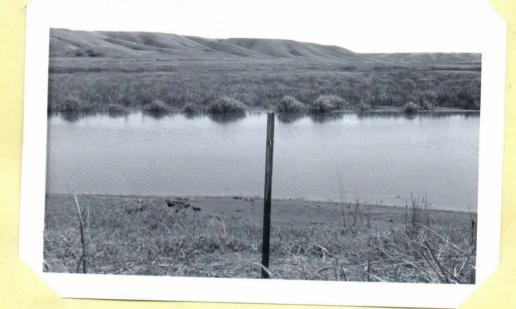
Unit 7 Transect 3



Unit 8 from post 33518 8/19/63



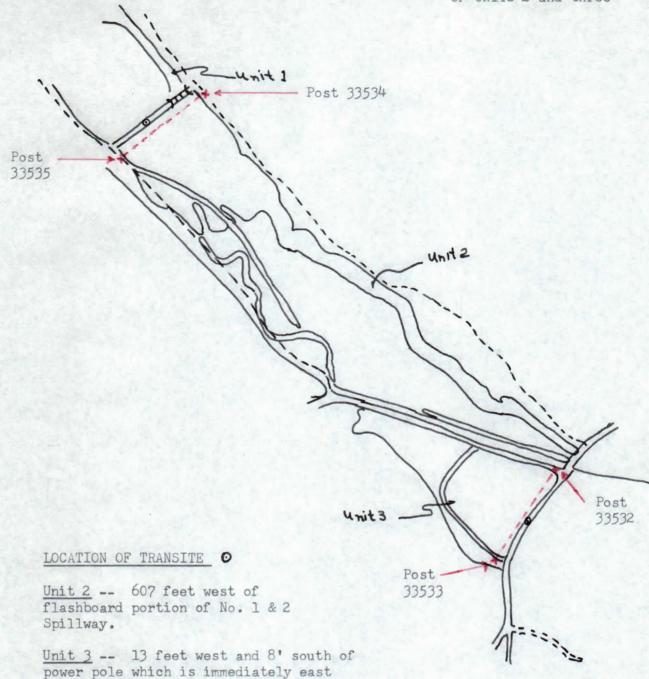
Unit 8 from post 33519 8/19/63



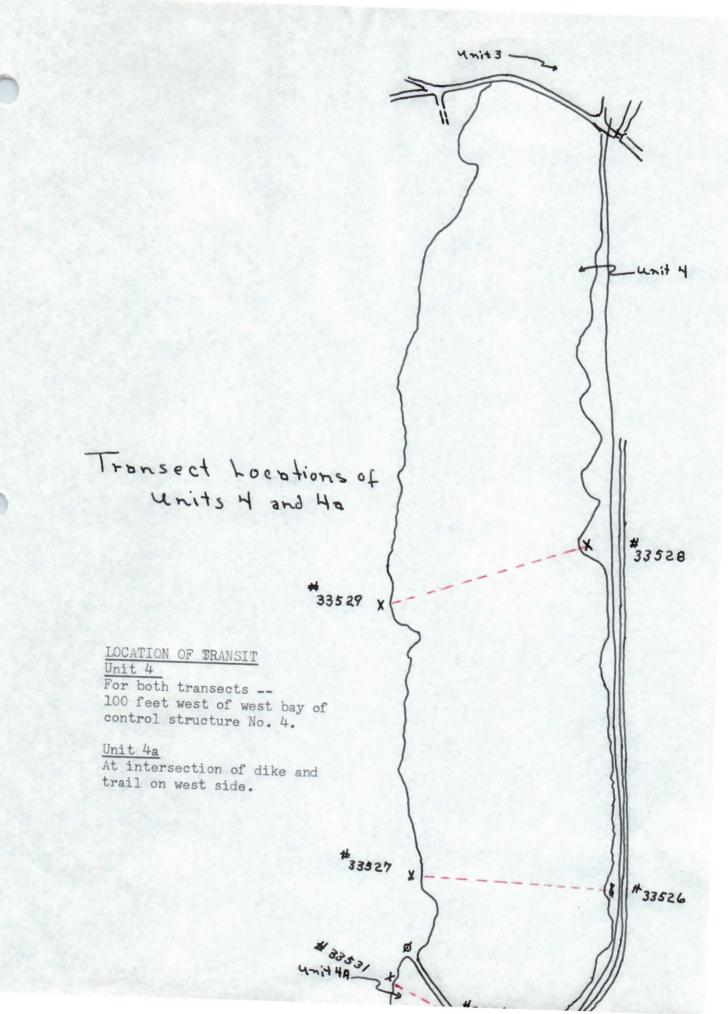
Unit 8 from post 33516

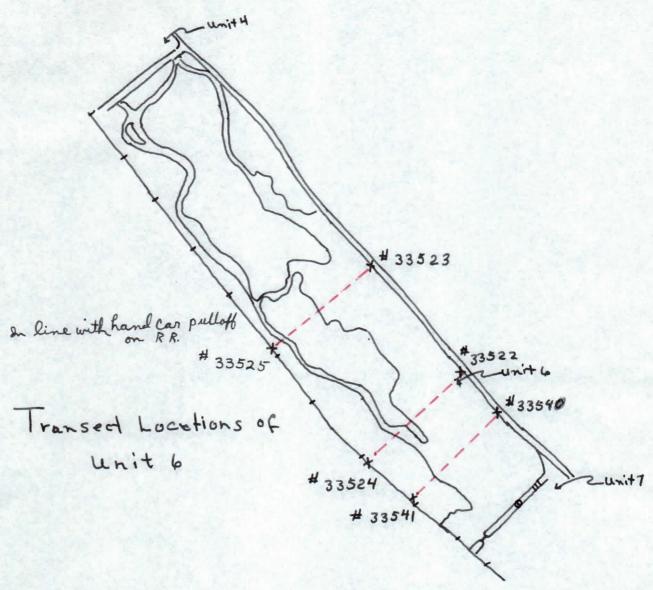


Unit 8 rom post 33517



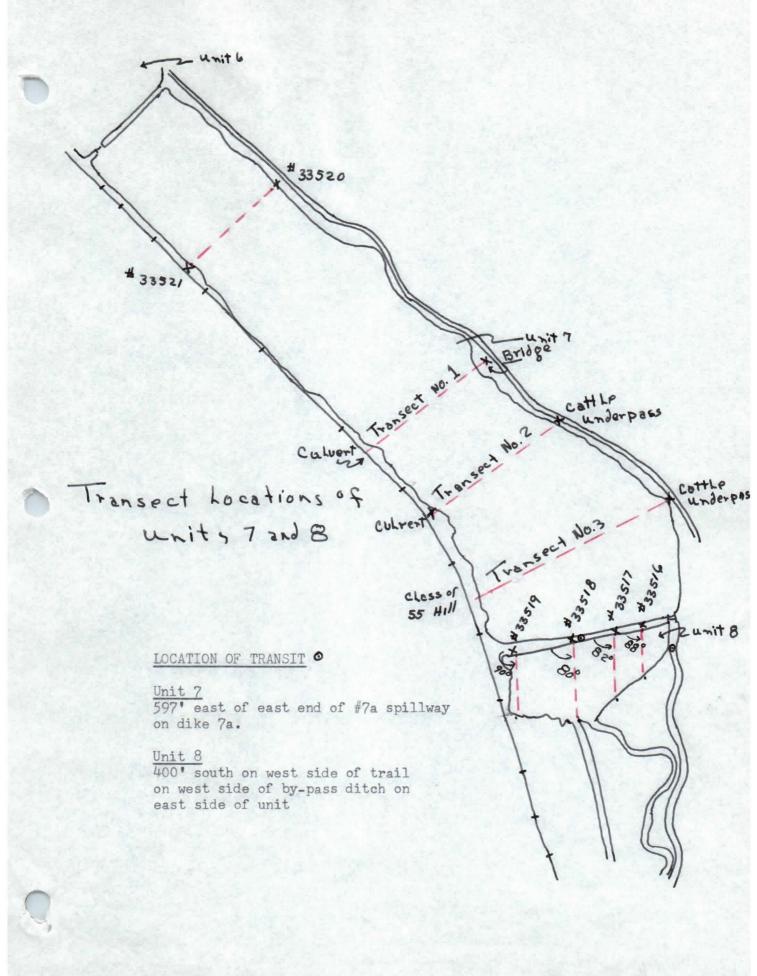
of emergency spillway and/or 40° from center of E-W road and 660 feet from N-S road.





LOCATION OF TRANSIT O

Unit 6 200° west of west bay of control structure no. 6 for all three transects





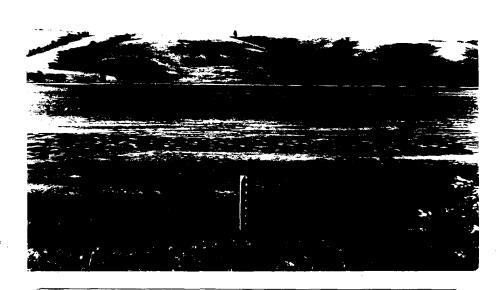
UNIT 1

Transect No. 1 Looking from post 33537 on the west to post 33526 on the east.

Neg. 85-67

Gaugesreading_____

8/22/67



UNIT 1

Transect No. 1 West to East 9/2/66 66-#9 Gage rending -- 11.36

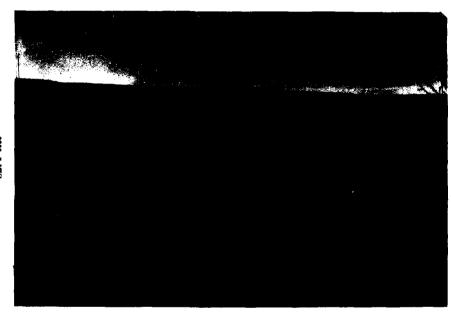




UNIT 1

Transect No. 1 Looking from post 33537 on the west to post 33526 on the east. Photo from 1959 Student Asst. Report.

8/30 Gage Reading---10.88



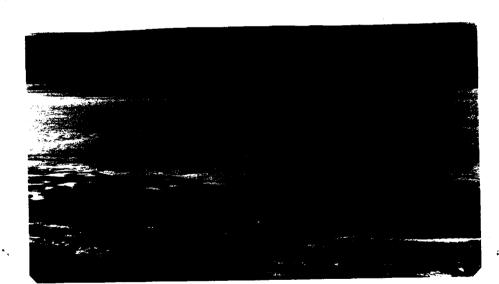
SEPT 195

UNIT 1

Transect No. 1 View from east to west

8/22/67

Gauge Reading _____



UNIT 1

Transect No. 1 View from east to west 9/2/65-66-57

Gage Reading --- 11.36

SEP . 65



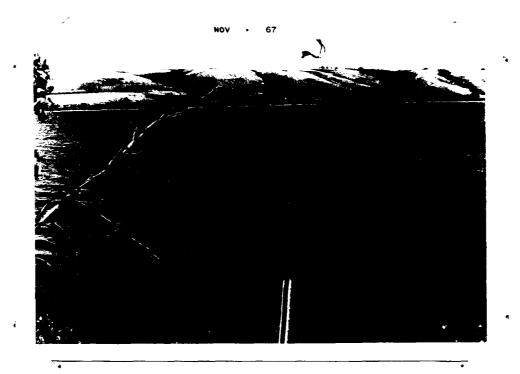
UNIT 1

Transect No. 2 View west to east

8/22/67

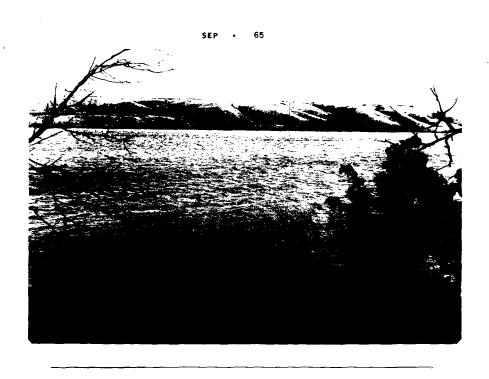
Neg No. 85-67

Gauge Reading____



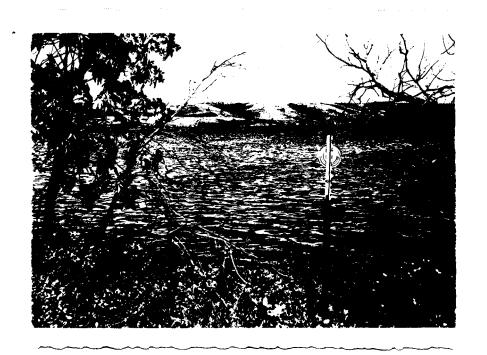
UNIT 1

Transect No. 2 View west to east 9/2/65 66.50 Gage Rending --- 11.36



UNIT 1

Transect No. 2 Looking from post 33539 on the west to post 33538 on the east. Neg. No. 60-35
8/19/60 Gage Reading---13.46



UNIT 1

Transect No. 2 View from west to east
Neg. No. 59-65
8/30/59 Gage Reading---10.88

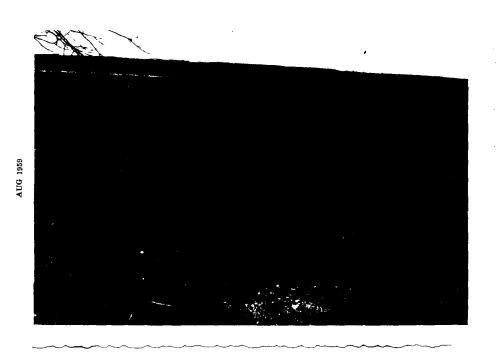


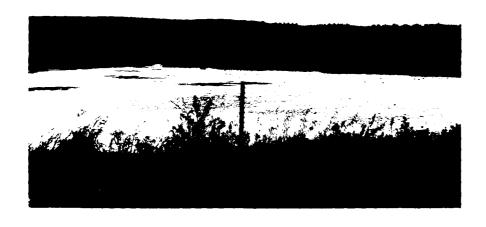
Photo did not **turn** out

Neg. was blank

UNIT 2

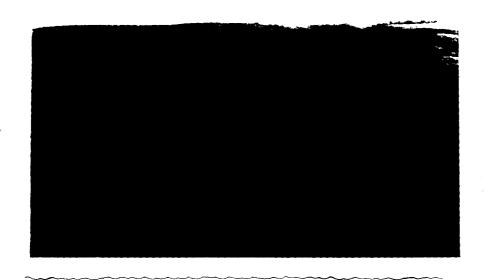
Transect No. 1 View from West to East 9/2/65 66-48 Gage Reading --- 8.06

SEP • 65



UNIT 2

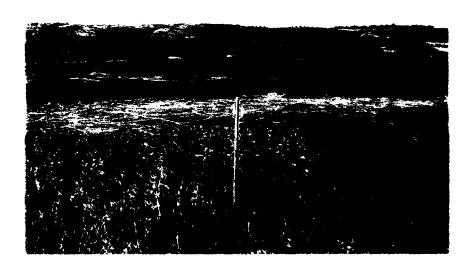
Transect No. 1 View from west to east Neg. No. 62-41
8/20/61 Gage Reading---5.00



UNIT 2

Transect No. 1 Looking from post 33535 on the west to post 33534 on the east. Neg. No. 60-36

8/19/60 Gage Reading---7.94



UNIT 2

Transect No. 1 Looking from post 33535 on the west to post 33534 on the east.
Neg. No. 59-63
8/30/59 Gage Reading---7.36



AUG 1959

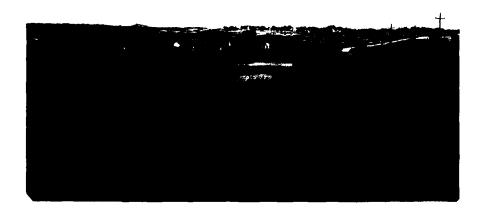
Photo did not durn out Neg. was blank

UNIT 3

Transect No. 1

View from west side looking east toward Welsch place.
9/2/65 66-47
Gage Reading-- 8.26

SEP • 65



UNIT 3

Transect No. 1 From west looking east to
Welsch Place.
Neg. No. 62-42
8/20/61 Gage Reading---Dry



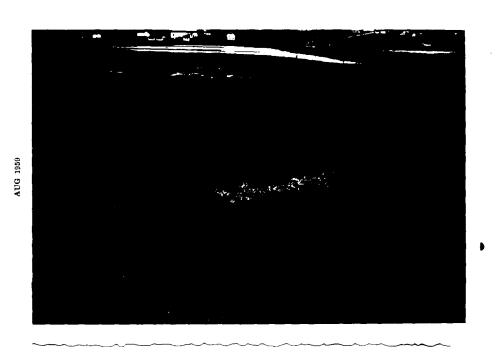
UNIT 3

Transect No. 1 Looking from post 33533 on the west to post 33532 on the east.
Neg. No. 60-34
8/19/60 Gage Reading---8.20



UNIT 3

Transect No. 1 Looking from post 33533 on the west to post 33532 on the east.
Neg. No. 60-34
8/30/59 Gage Reading---7.64



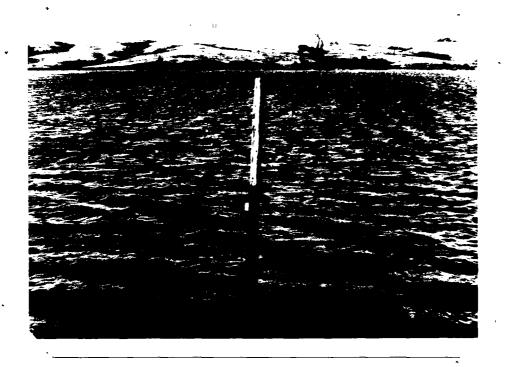
UNIT 4

T_ansect No. 1

From stake no. 33526 on the east to stake 33527 on the west side. 7/28/67

Neg. No. 16 85-67 R4

Gauge Reading_____



UMOUTTO TIMUNDEOT

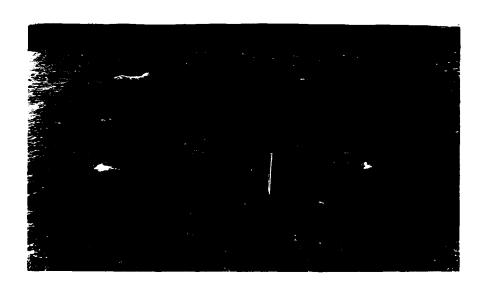
UNIT 4

Transect No. 1 View from Eat to west.

9/2/65 66-45

Gage Reading -- 8.22

SEP • 65



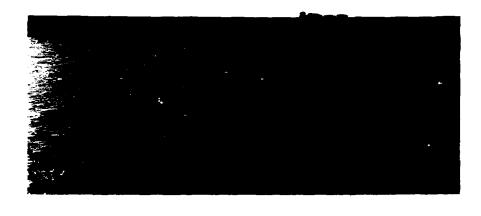
UNIT 4

Transect No. 2 View from east to west.

9/2/65 66-46

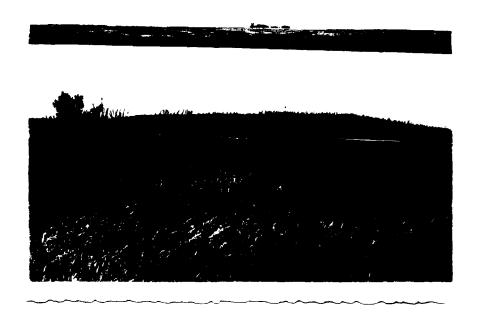
Gage Read/Ng-- 8.22

SEP . 6



UNIT 4

Transect No. 2 Looking from post 33528 on the east to post 33529 on the west. 8/19/60 Gage Reading---8.00



UNIT 4

Transect No. 2 Looking from post 33528 on the east to post 33529 on the west.

Neg. No. 59-27

8/30/59 Gage Reading---7.48



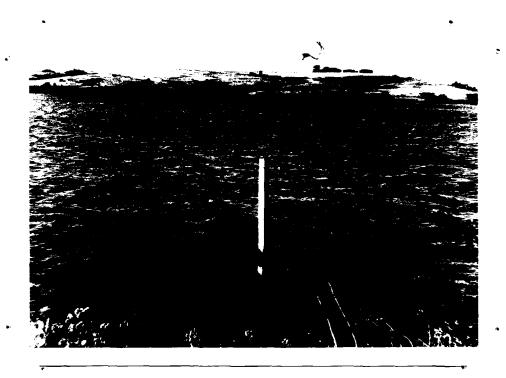
UNIT 4

Transect No. 2

From stake 33528 on the east to stake 33529 on the west side. 7/28/67

Neg. No. 17 85-67 R4

Gauge Reading____



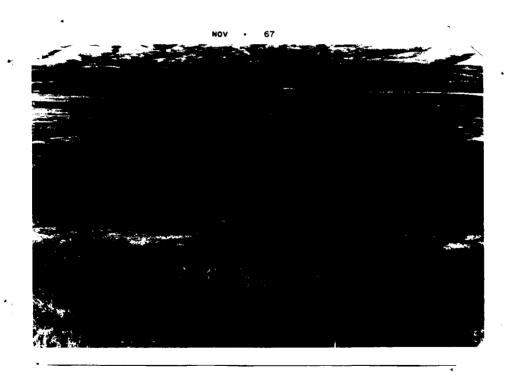
UNIT 4a

Transect l View from west side looking toward the old spillway

8/22/67

Neg. 85-67

Gauge reading ____

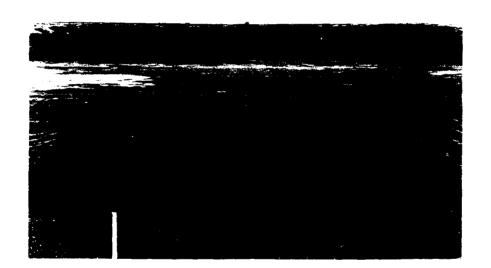


UNIT LA

Transect No. 1

View from west side looking toward the old spillway. 9/3/65 66-44 Gage Reading--- 8,22?

SEP • 65



T = T70

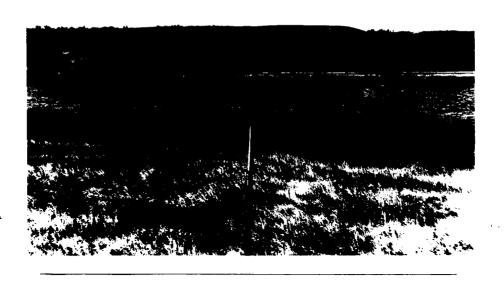
UNIT 6

Transect No. 1

From stake 33540 on the east to stake 33541 on the west. 7/28/67

Neg. No. 13 85-67 R4

Gauge Reading



UNIT 6

Transect No. 1 From stake 3354 on the east to stake 33540 on the west.

9/2/65- 66-4/

Gage Reading -- 6.72

SEP . 65

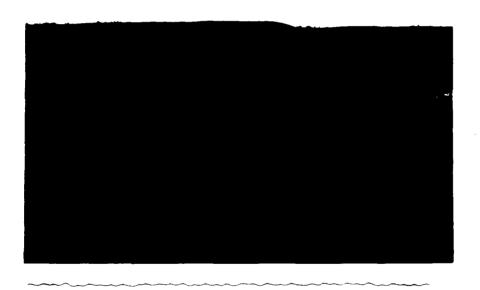


UNIT 6

Transect No. 1 From Stake 3354 on the east to stake 33540 on the west.

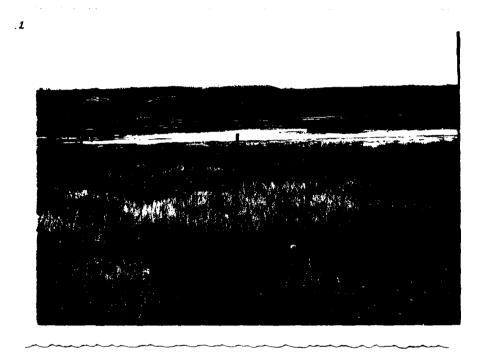
Neg. No. 62-51

8/20/61 Gage Reading---Dry



UNIT 6

Transect No. 1 Looking from post 33540 on the east to post 33541 on the west.
Neg. No. 60-45
8/19/60---4.62 Gage Reading



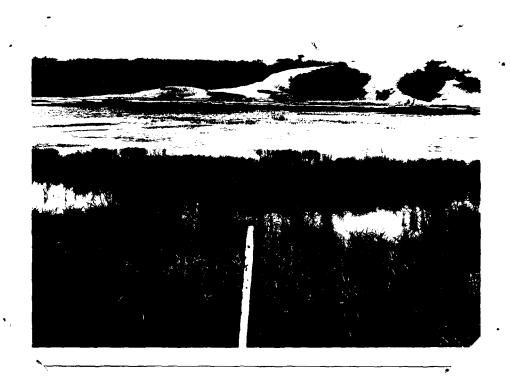
UNIT 6

Transect No. 2

From stake 34 33524 on the east side to stake 33524 on the west side. 7/28/67

Neg. No. 14 85-67 R4

Gauge Reading____



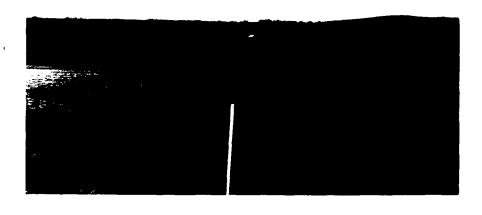
UNIT 6

Transect No. 2 From Stake 34000 on the east to stake 33522 on the west.

9/2/65-66-42

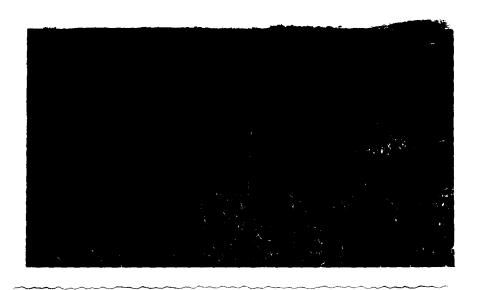
Gage Reading--6.72

SEP • 65



UNIT 6

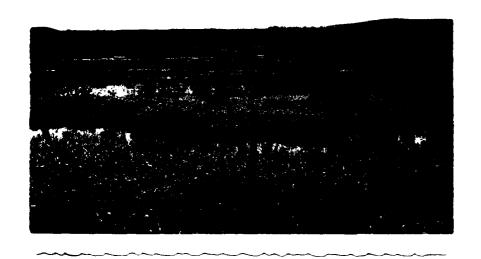
Transect No. 2 From stake 34000 on the east to stake 33522 on the west.
Neg. No. 62-52
8/20/61 Gage Reading---Dry



UNIT 6

Transect No. 2 Looking from post 33522 on the east to post 33524 on the west. Neg. No. 60-44

8/19/60 Gage Reading---4.62



UNIT 6

Transect No. 2 Looking from post 33522 on the east to post 33524 on the west. From 1959 Student Asst. Report 8/30/59 Gage Reading---4.70



From stake 33523 on the east to stake 33525 on the west. 7/28/67

Neg. No. 15 85-67 R4

Gauge Reading



UNIT 6

Transect No. 3 From stake 33523 on the east to stake 33525 on the west 9/2/65 6age Reading -- 6.72

SEP . 65



UNIT 6

Transect No. 3 From stake 33523 on the east to stake 33525 on the west.

May mo. 62-53

8/20/65 Gage Reading---Dry



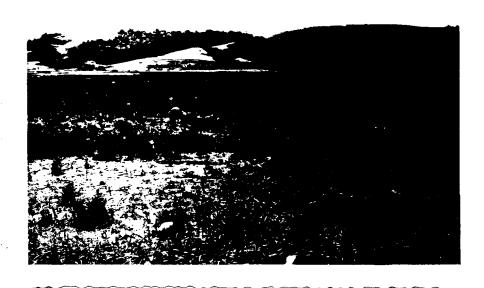
TRANSECT # 3 - 1959

AQUATIC TRANSECT

UNIT 6

Transect No. 3 Looking from post 33523 on the east to post 33525 on the west. Photo from Student Asst. Report of 1959.

8/30/59 Gage Reading---4.70

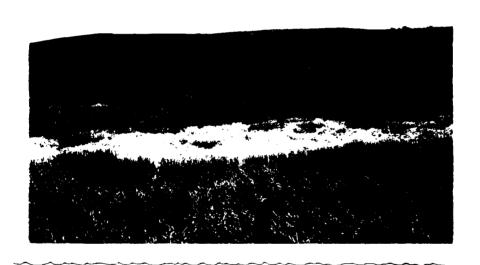


UNIT 6

Transect No. 3 Looking from post 33523 on the east to post 33525 on the west.

Meg Mo. 60-40

8/19/60 Gage Reading---4.62



UNIT 7

Transect No. 1 From Cattle Pass on east side to Hill 55 on west side.
7/28/67

Neg. no. 8 85-67 R4

Gauge Reading_____



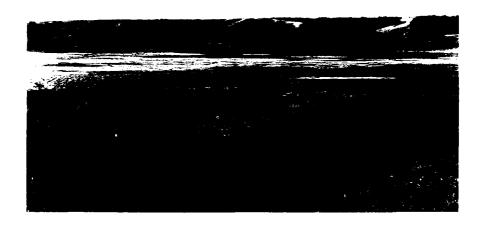
UNIT 7

Transect No. 1 From Cattle Pass on east to Hill 55 on west side.

9/2/65 66-37

Gage Reading -- 3.36

SEP • 65



UNIT 7

Transect No. 1 From Cattle Pass on east to Hill 55 on the west side. Neg. No. 60-57

8/19/60 Gage Reading---2.60



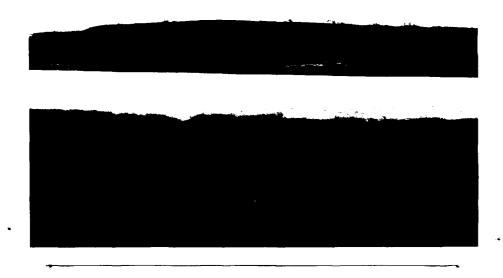
UNIT 7

Transect No. 2

Cattle pass on east side to culvert on the west. 7/28/67

Neg. No 10 85-67 R4

Gauge Reading ____



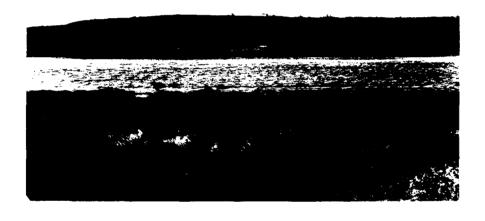
UNIT 7

Transect No. 2 Cattle pass on east to culvert on the west.

9/2/65- 66-38

Gage Reading--3.36

SED . 65

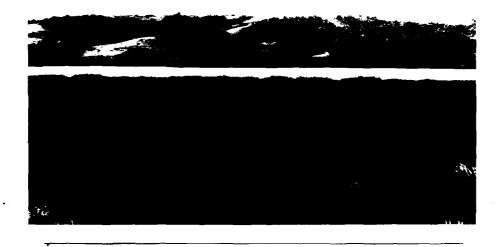


Transect No. 3

From Bridge on the east side to a culvert on the west. 7/28/67

Neg. No. 11 85-67 R4

Gauge Reading____



Transect No. 3 From Bridge on the east side to a culvert on the west.

9/2/65- 66-39

Gage Reading--3.36

SEP • 65



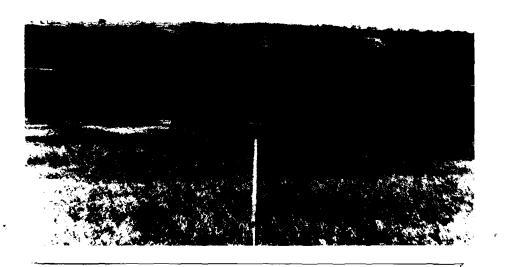
UNIT 7

Transect No. 4

From Stake 33521 on the east side to Stake 33520 on the west side. 7/28/67

Neg. No. 12 85-67 R4

Gauge Reading____



Transect No. 4

From stake 33521 on the east to stake 33520 on the west 9/4/65

Gage Reading --- 3.36

SEP . 65



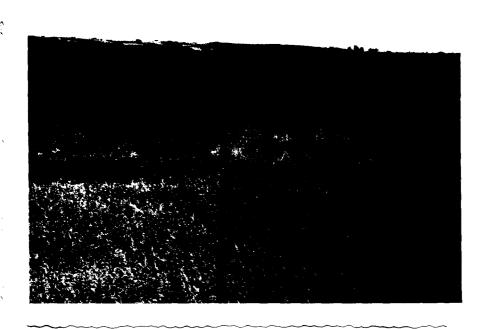
TRANSECT # 4 - 1965

UNIT 7

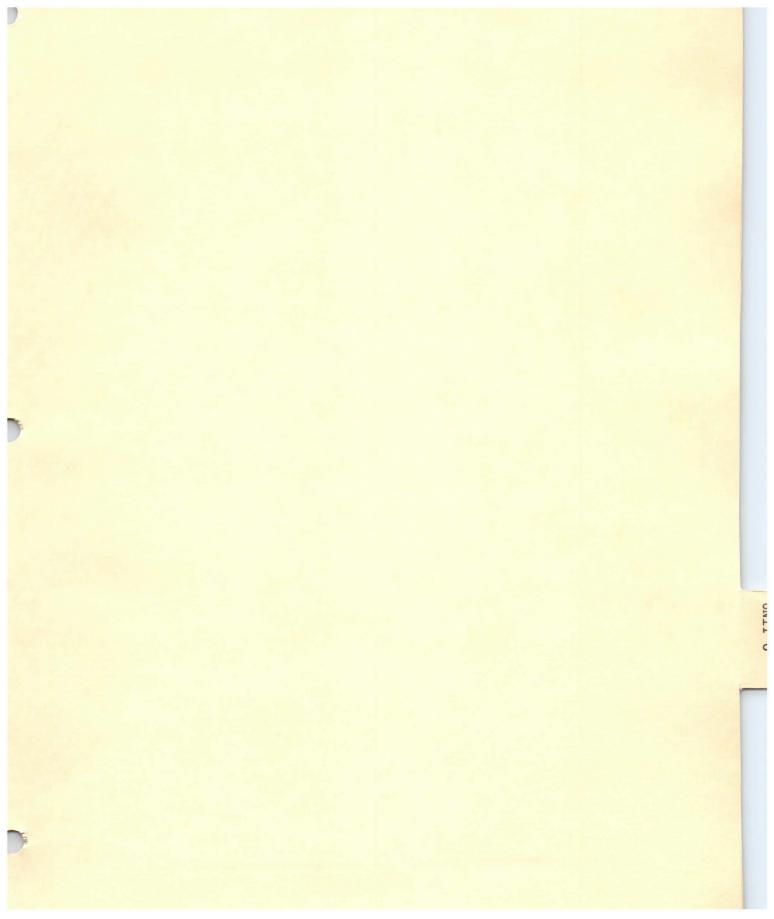
Transect No. 4

From stake 33521 on the east to stake 33520 on the west. From 1959 Student Asst. R port.

8/30/59 Gage Reading---1.78



TRANSECT # 4 - 1959

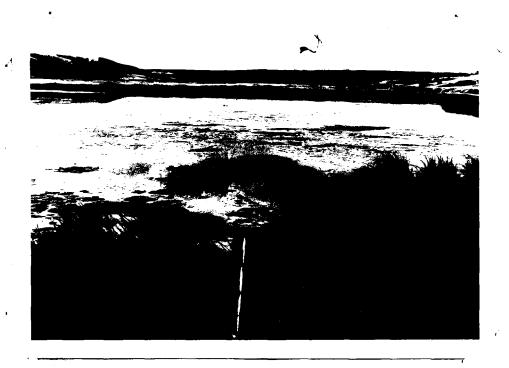


UNIT 8

TRANSECT NO. 1 From west end of dike (post No. 33519) looking towards the south. 7/28/67

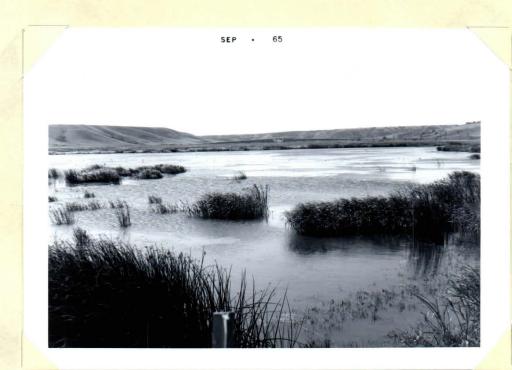
Neg. ref. Neg. #4 -85-67

Gauge Reading____



UNIT 8

Transect No. 1 From west end of dike looking towards the south. 9/2/65
66-33
Gage Reading--5.02

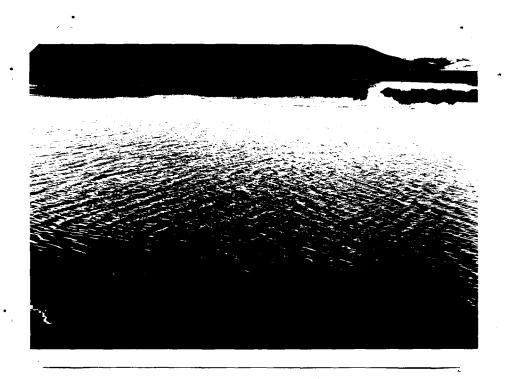


UNIT 8

From dike 7 (post no. 33518) looking south. 7/28/67

Ngg. Ref. Neg #5-85-67 R4

Gauge Reading____



UNIT 8

Fransect No. 2 From dike 7 looking south
9/a/65
66-34

Gage Reading--5.02



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AleUHILU III

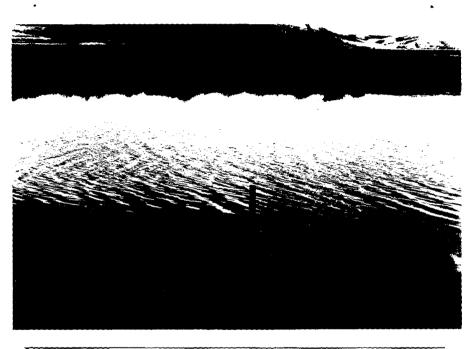
8 TINU

Transect No. 3

From dike 7 (post no. 33517) looking south. 7/28/67

Neg. No. 6 85-67 R4

Gauge Reading

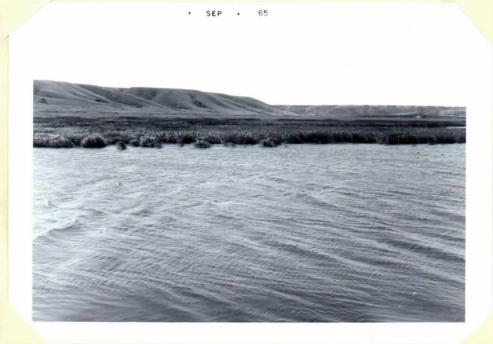


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UNIT 8

Transect No. 3 Dike 7 looking south
9/2/65- 66-35Gage Reading -- 5.02



TURNOBUL NU. 3 - TAOP

ACTITED TIMEMODICE

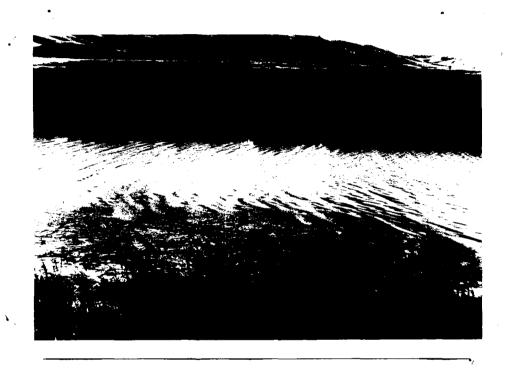
UNIT 8

Transect No. 4

From east end of dike 7 (post no. 33516) looking south. 7/28/67

Neg. No. 7 85-67 R4

Gauge Reading



WMONTTO TIMENDEROT

UNIT 8

Transect No. 4 From east end of dike 7 looking towards the south.

9/3/65 66-36

Gage Reading -- - 5.02

SEP . 65



AQUATIC TRANSPOR

UNIT 8

Transect No. & From east end of dike 7 looking towards the south.

8/30/59 Gage Reading---4.16

