

CONTACT INFORMATION

**CLIENT:**  
DIAMOND PEAK CATTLE COMPANY, LLC  
14761 CO HIGHWAY 318  
MAYBELL, CO 81640

**PRIMARY CONTACT:**  
JOHN RAFTOPOULOS  
JOHNRAFTO@GMAIL.COM

**ATTORNEY:**  
**VRANESH & RAISCH, LLP**  
5303 SPINE ROAD, STE. 202  
BOULDER, CO 80301

**PRIMARY CONTACT:**  
GENE RIORDAN, ESQ.  
EJR@VRLAW.COM  
303-443-6151

**ECOLOGIST:**  
**ECOSYSTEM SERVICES, LLC**  
1455 WASHBURN STREET  
ERIE, CO 80516

**PRIMARY CONTACT:**  
GRANT GURNEE, P.W.S.  
GRANT@ECOLOGICALBENEFITS.COM  
303-746-0091

**ENGINEER/DESIGNER:**  
**STILLWATER SCIENCES**  
4845 PEARL EAST CIRCLE, STE. 101  
BOULDER, CO 80301

**PRIMARY CONTACT:**  
JULIE ASH, P.E.  
JASH@STILLWATERSCI.COM  
720-618-5032

**PROFESSIONAL LAND SURVEYOR:**  
**EPP & ASSOCIATES**  
433 4TH AVENUE WEST  
CRAIG, CO 81626

**PRIMARY CONTACT:**  
MICHAEL FRAHER, P.L.S.  
MIKE@EPPASSOCIATES.COM  
970-824-5227

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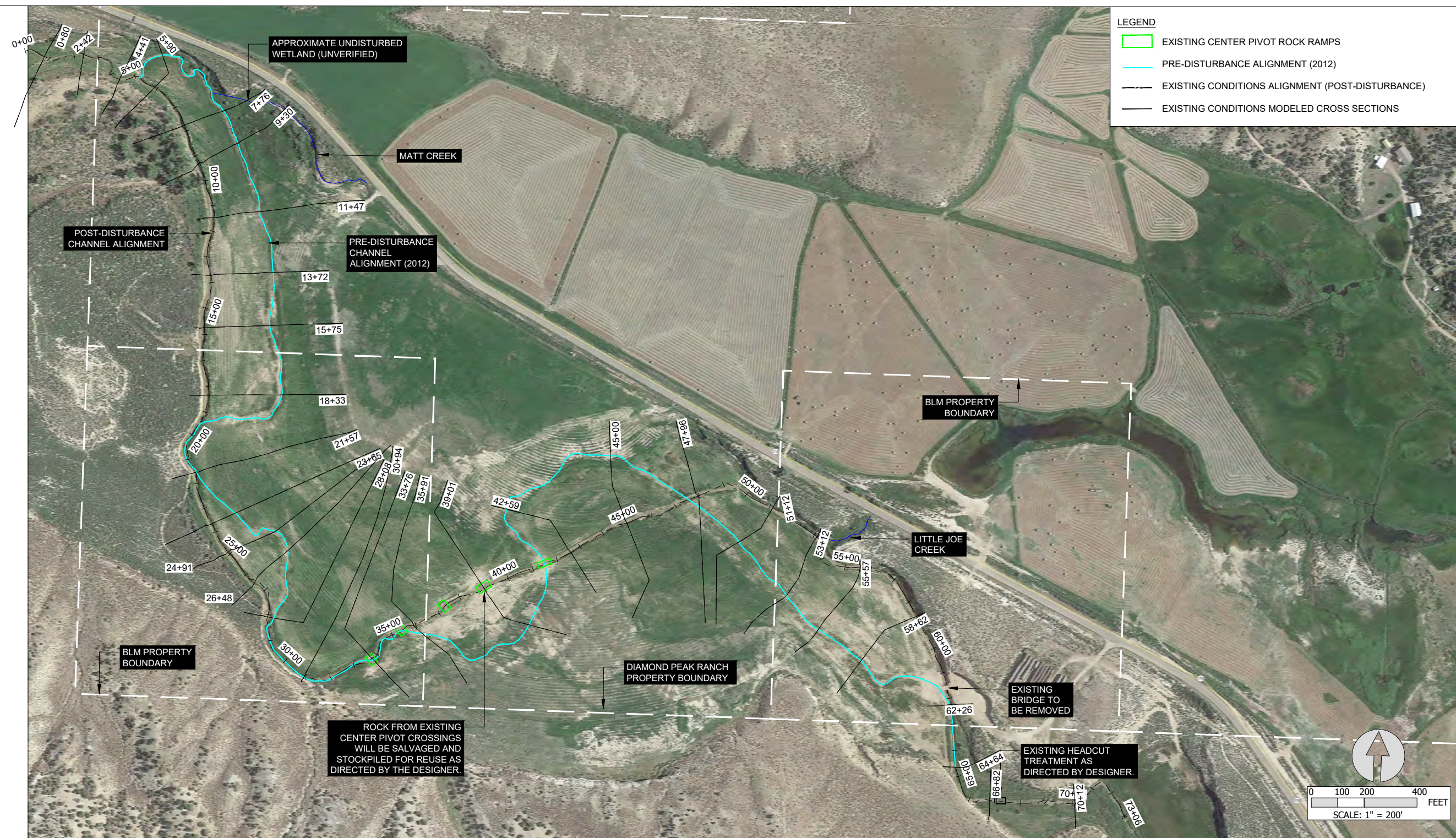
EC = EXISTING CONDITION  
PC = PROPOSED CONDITION

MAPPING NOTES:

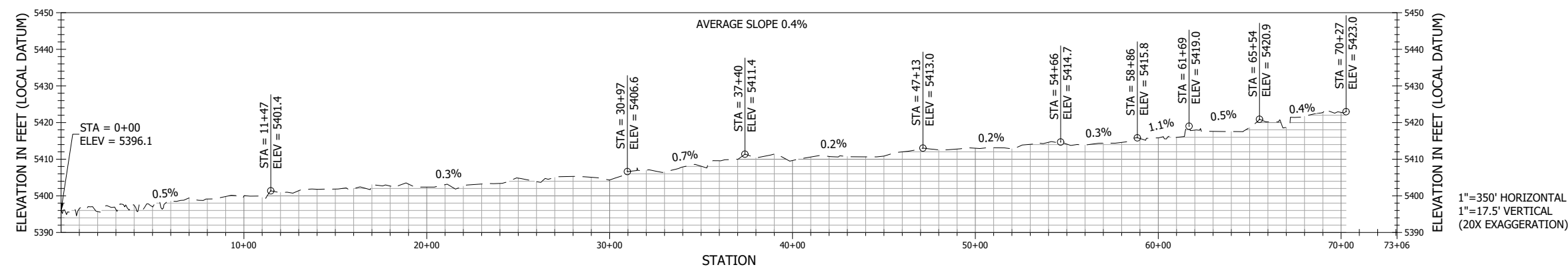
GEOREFERENCED AERIAL IMAGERY BACKGROUND SOURCED FROM GOOGLE EARTH, DATED 6/21/2015

EXISTING CONDITION SURVEY PROVIDED BY EPP & ASSOCIATES, DATED 8/19/2020.



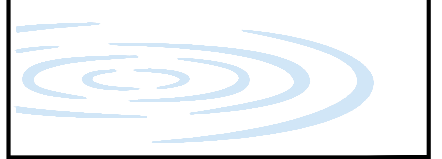


EXISTING PROFILE ON EXISTING ALIGNMENT



VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO



PROJECT NUMBER: 880.00

SCALE: AS NOTED

DATE: 6/10/2022

DESIGN: JB/TS/RB

DRAWN: TS/EP/KE

CHECKED: TS/RB

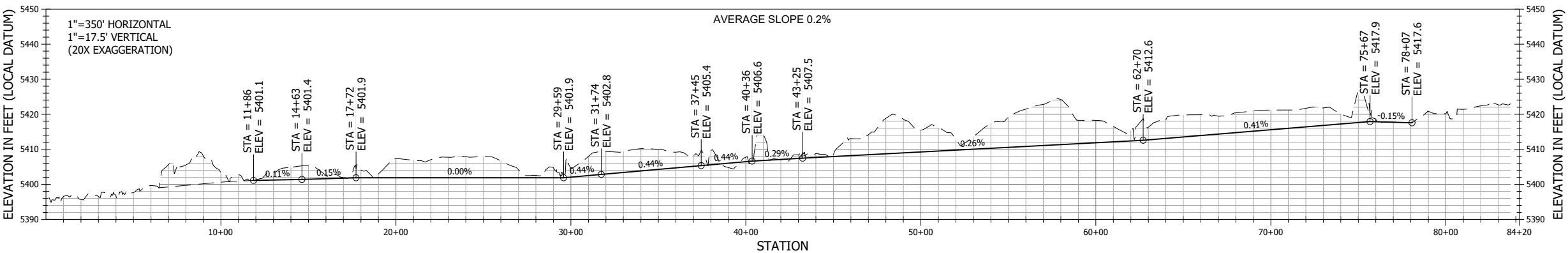
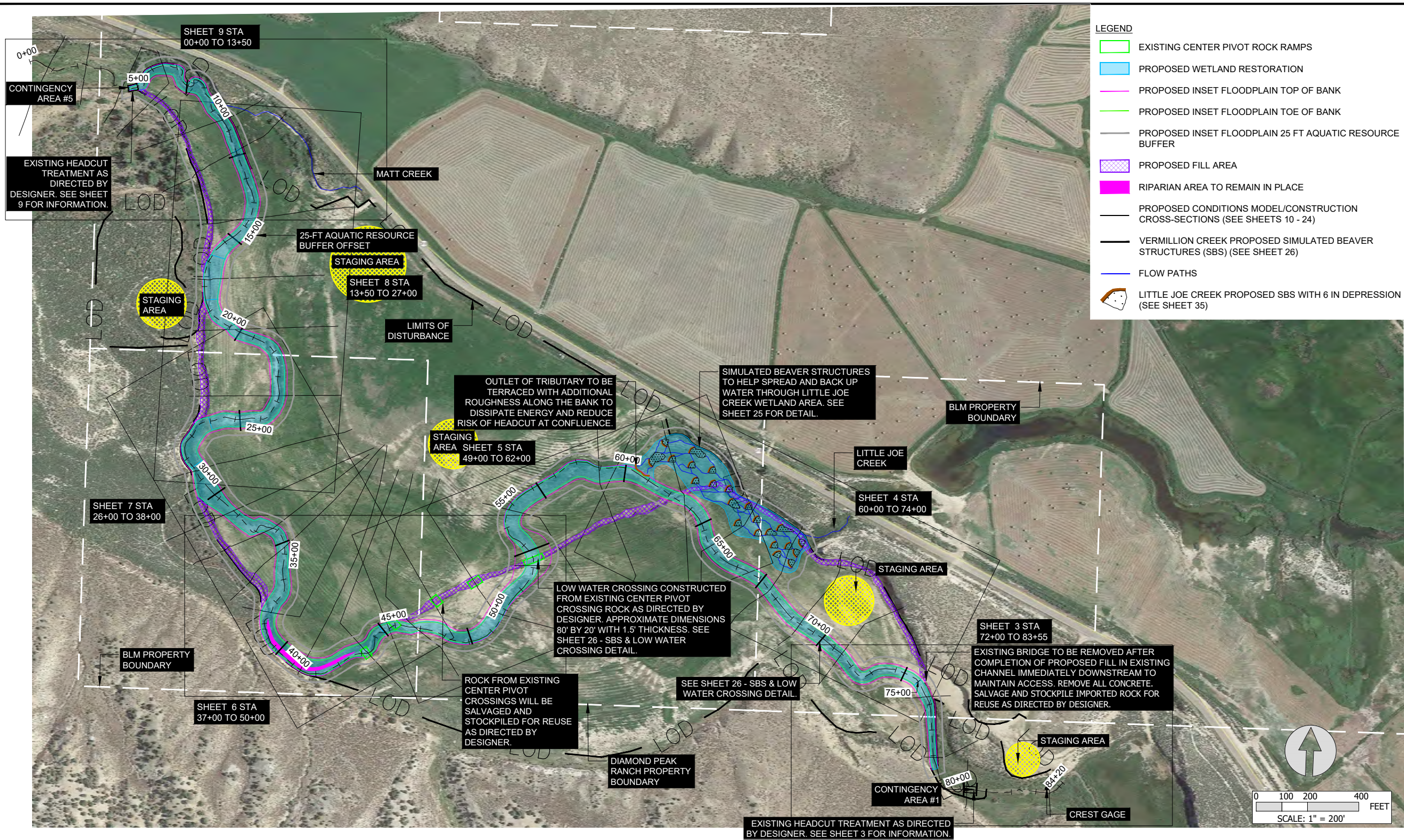
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P&P EC OVERVIEW

SHEET 1

LAST SAVED: 3/30/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-CRASHSCALE-255  
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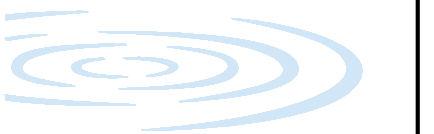


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MOFFAT COUNTY, COLORADO

Stillwater Sciences

ecos  
ecosystem services LLC



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CHECKED: TS/RB  
APPROVED:

P&P PC OVERVIEW

SHEET 2

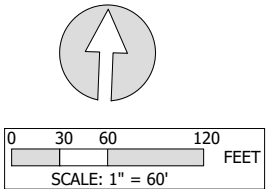
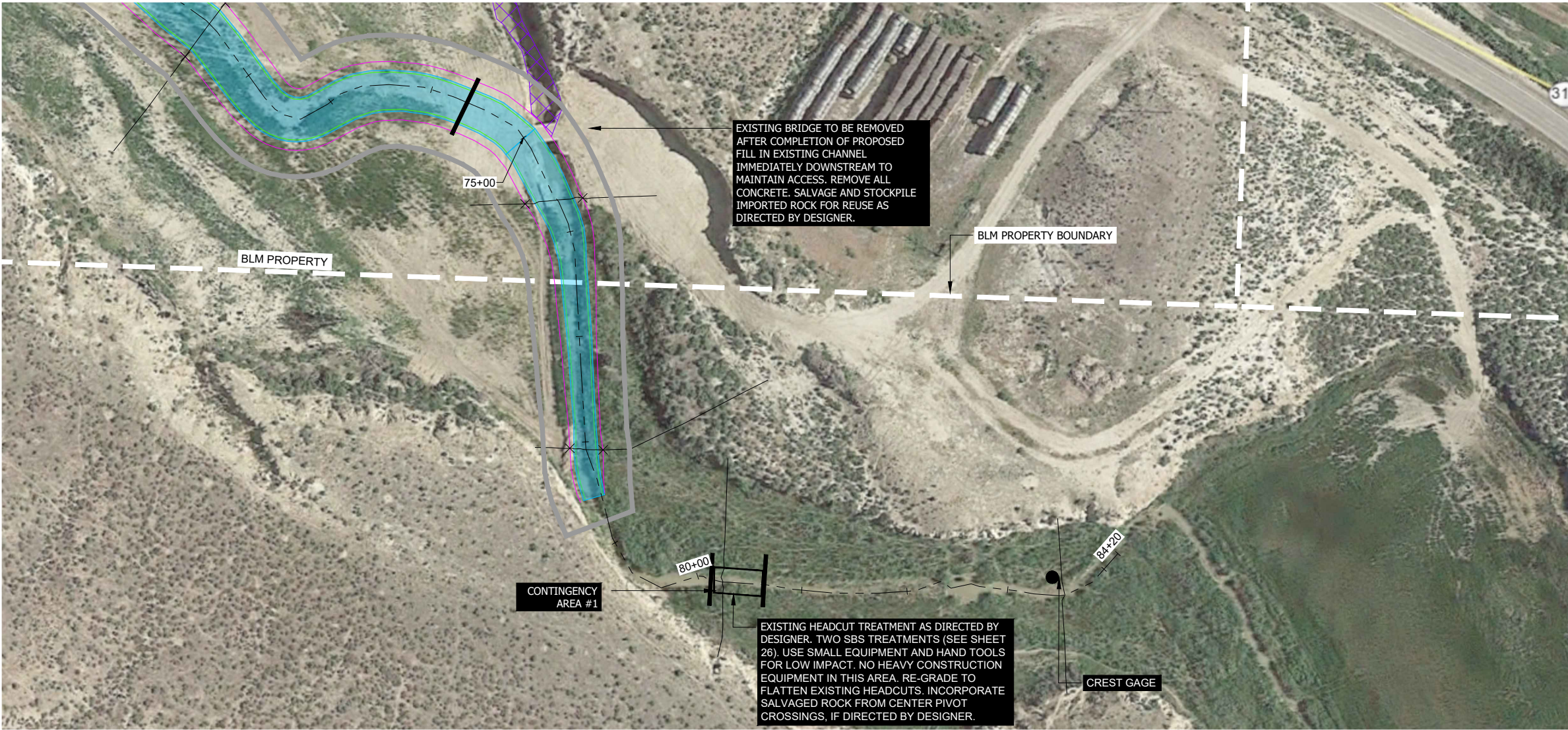
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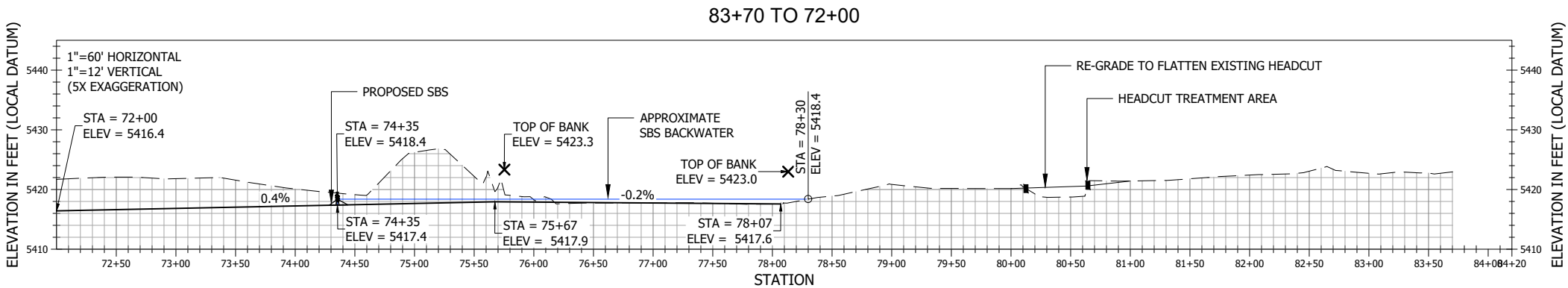
VERMILLION CREEK AT  
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MOFFAT COUNTY, COLORADO

Stillwater Sciences



- LEGEND**
- EXISTING CENTER PIVOT ROCK RAMPS
  - PROPOSED WETLAND RESTORATION
  - PROPOSED INSET FLOODPLAIN TOP OF BANK
  - PROPOSED INSET FLOODPLAIN TOE OF BANK
  - PROPOSED INSET FLOODPLAIN 25 FT AQUATIC RESOURCE BUFFER
  - PROPOSED FILL AREA
  - RIPARIAN AREA TO REMAIN IN PLACE
  - PROPOSED CONDITIONS MODEL/CONSTRUCTION CROSS-SECTIONS (SEE SHEETS 10 - 24)
  - VERMILLION CREEK PROPOSED SIMULATED BEAVER STRUCTURES (SBS) (SEE SHEET 26)
  - FLOW PATHS
  - LITTLE JOE CREEK PROPOSED SBS WITH 6 IN DEPRESSION (SEE SHEET 35)



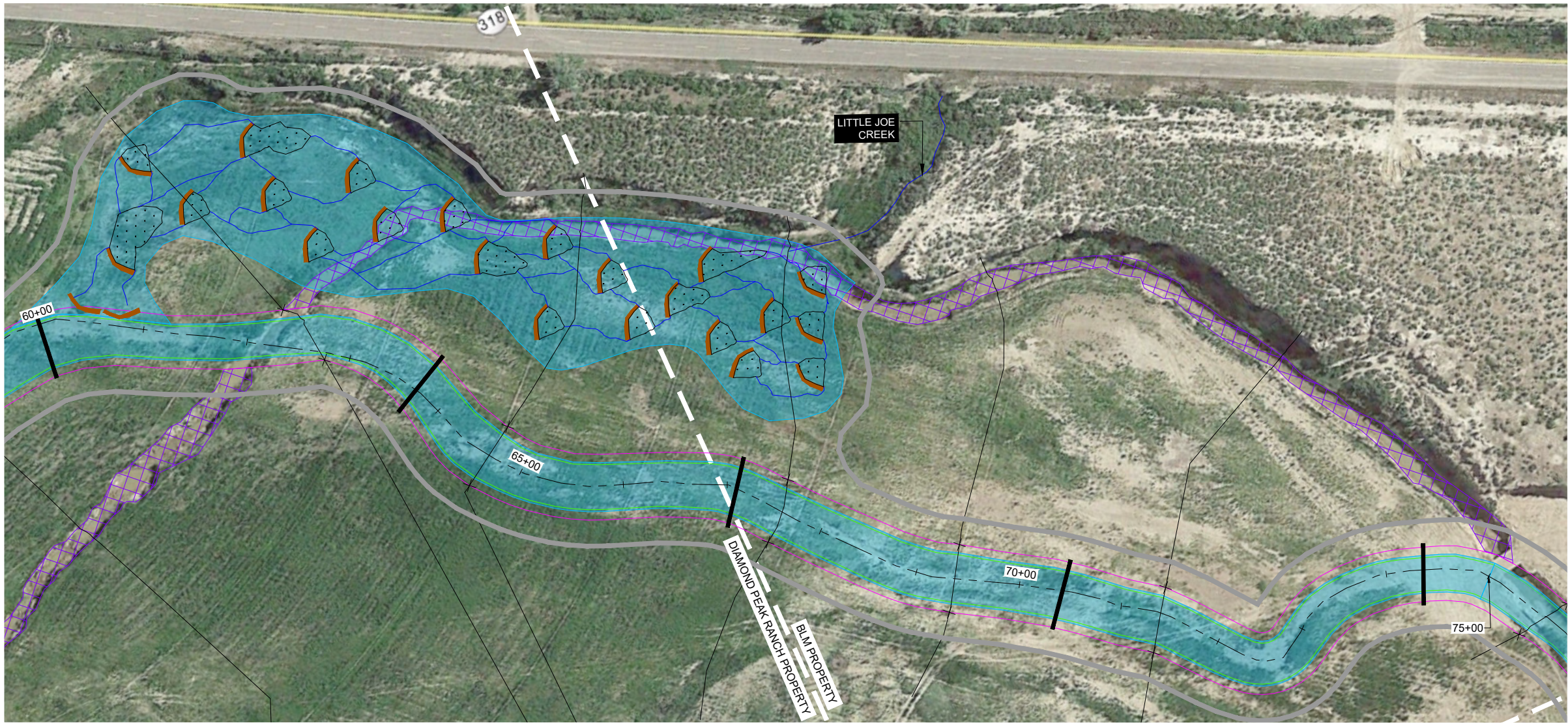
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DESIGN: JB/TS/RB  
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CHECKED: TS/RB  
APPROVED:

P&P 83+55 TO 72+00

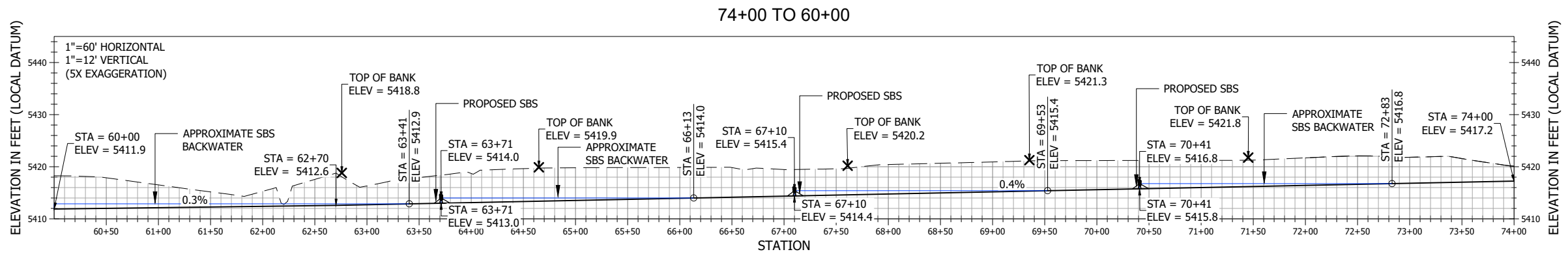
SHEET 3





LEGEND

- |   |  |
|---|--|
| EXISTING CENTER PIVOT ROCK RAMPS                        | PROPOSED CONDITIONS MODEL/CONSTRUCTION CROSS-SECTIONS (SEE SHEETS 10 - 24) |
| PROPOSED WETLAND RESTORATION                            | VERMILLION CREEK PROPOSED SIMULATED BEAVER STRUCTURES (SBS) (SEE SHEET 26) |
| PROPOSED INSET FLOODPLAIN TOP OF BANK                   | FLOW PATHS   |
| PROPOSED INSET FLOODPLAIN TOE OF BANK                   | LITTLE JOE CREEK PROPOSED SBS WITH 6 IN DEPRESSION (SEE SHEET 35)          |
| PROPOSED INSET FLOODPLAIN 25 FT AQUATIC RESOURCE BUFFER |  |
| PROPOSED FILL AREA                                      |  |
| RIPARIAN AREA TO REMAIN IN PLACE                        |  |

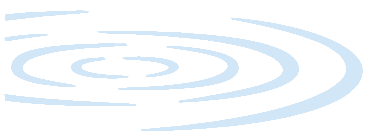
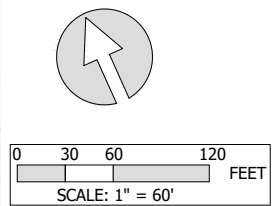


VERMILLION CREEK AT  
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Stillwater Sciences

ecos  
ecosystem services LLC



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DRAWN: TS/EP/KE

CHECKED: TS/RB

APPROVED:

P&P 74+00 TO 60+00

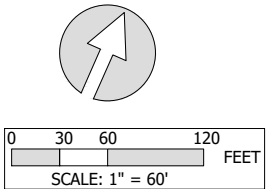
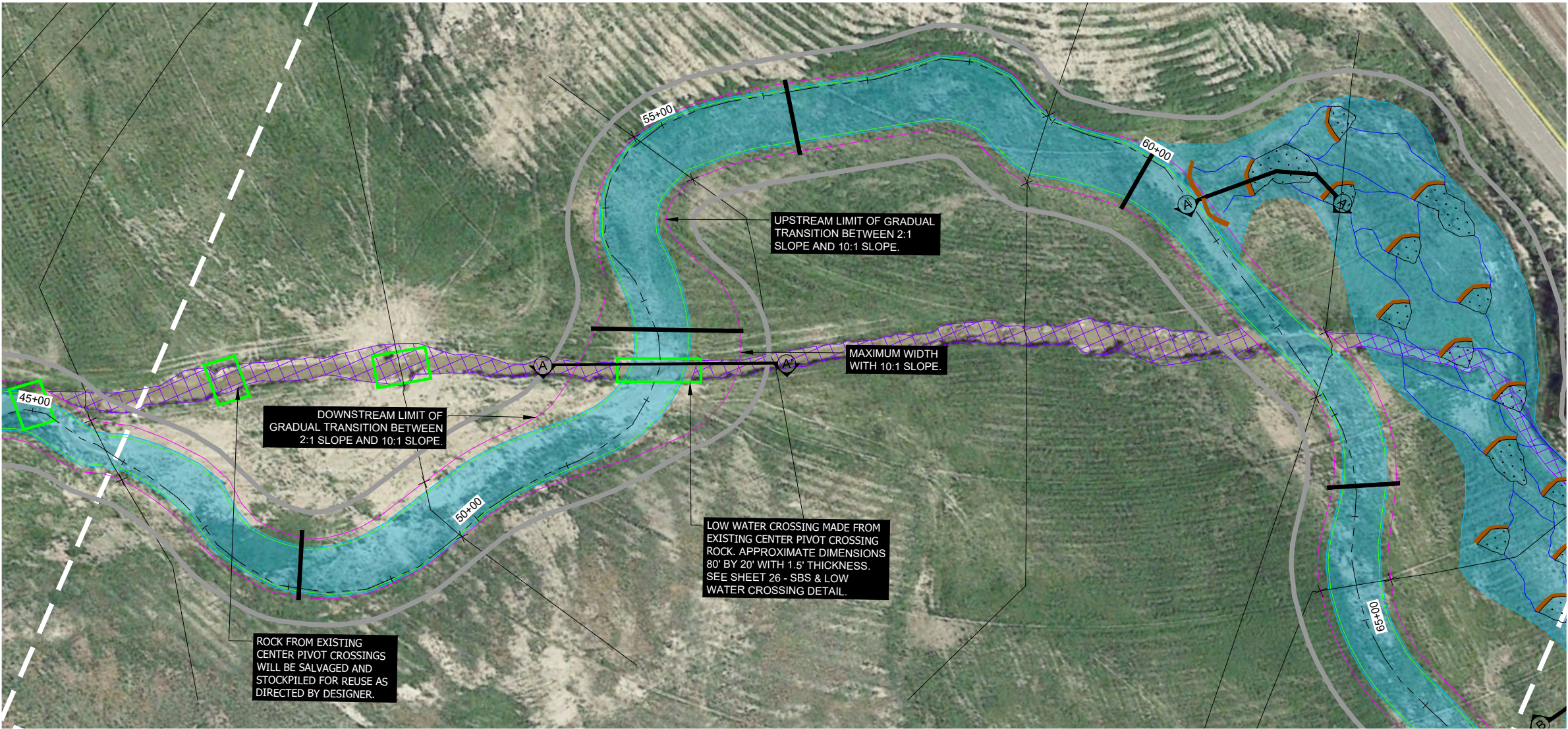
SHEET 4



VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
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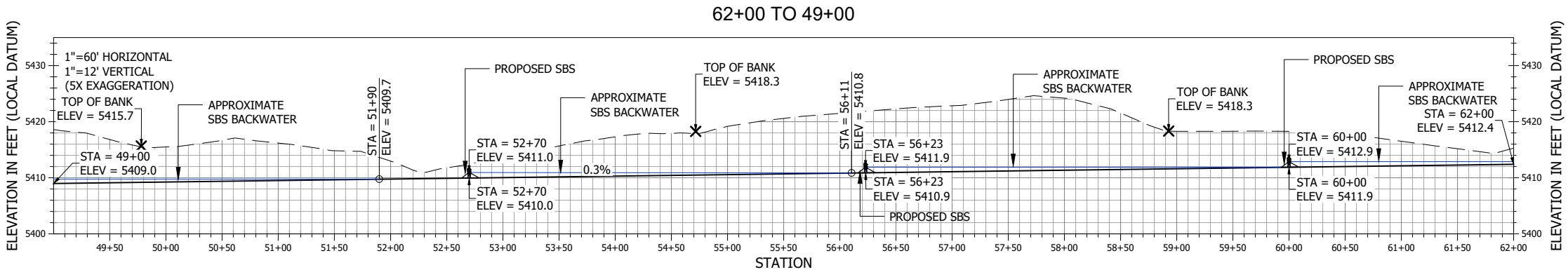
MOFFAT COUNTY, COLORADO

Stillwater Sciences



LEGEND

- |   |  |
|---|--|
| EXISTING CENTER PIVOT ROCK RAMPS                        | PROPOSED CONDITIONS MODEL/CONSTRUCTION CROSS-SECTIONS (SEE SHEETS 10 - 24) |
| PROPOSED WETLAND RESTORATION                            | VERMILLION CREEK PROPOSED SIMULATED BEAVER STRUCTURES (SBS) (SEE SHEET 26) |
| PROPOSED INSET FLOODPLAIN TOP OF BANK                   | FLOW PATHS   |
| PROPOSED INSET FLOODPLAIN TOE OF BANK                   | LITTLE JOE CREEK PROPOSED SBS WITH 6 IN DEPRESSION (SEE SHEET 35)          |
| PROPOSED INSET FLOODPLAIN 25 FT AQUATIC RESOURCE BUFFER |  |
| PROPOSED FILL AREA                                      |  |
| RIPARIAN AREA TO REMAIN IN PLACE                        |  |



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DRAWN: TS/EP/KE

CHECKED: TS/RB

APPROVED:

P&P 62+00 TO 49+00

SHEET 5

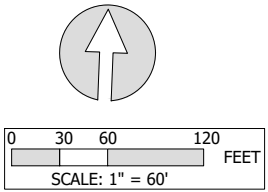
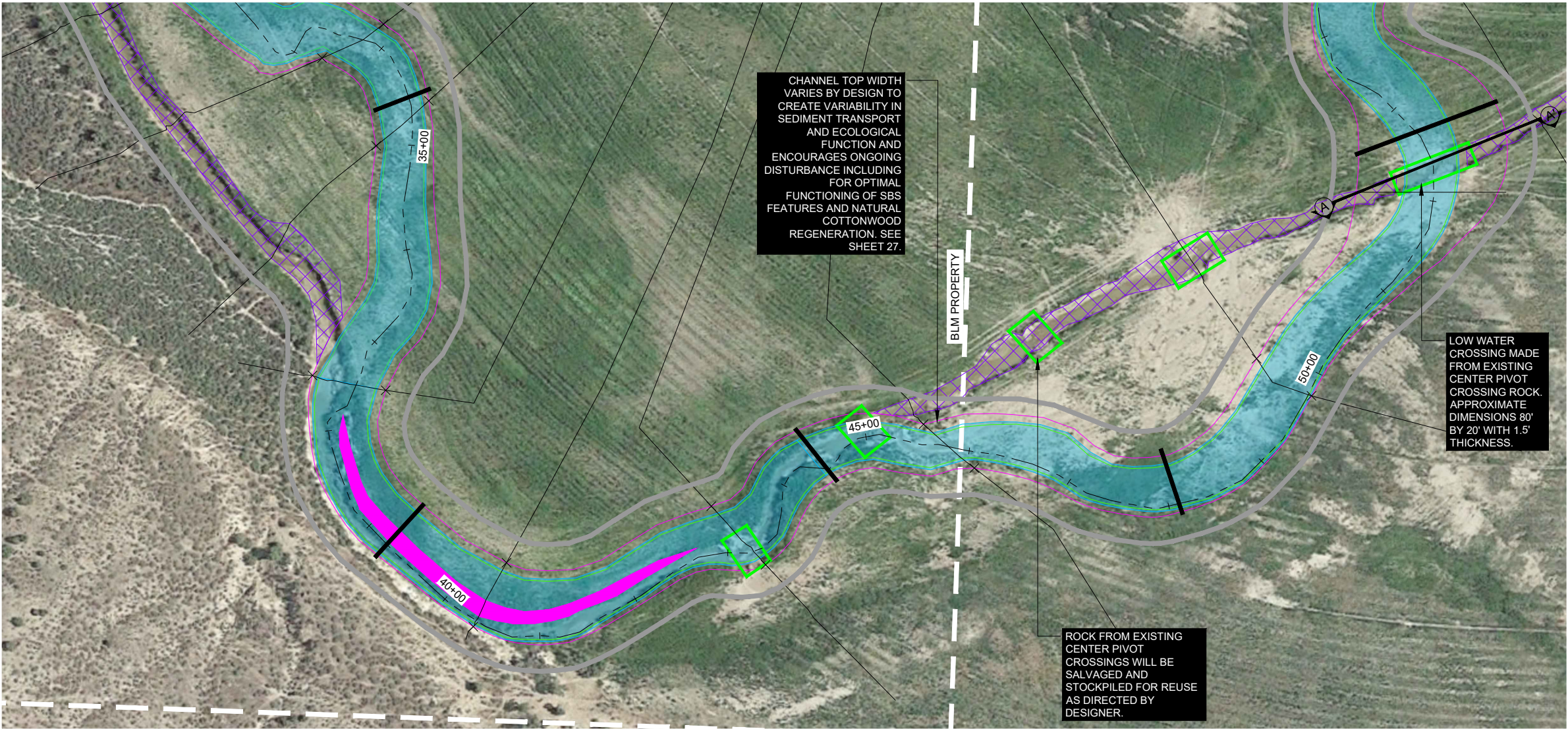


VERMILLION CREEK AT  
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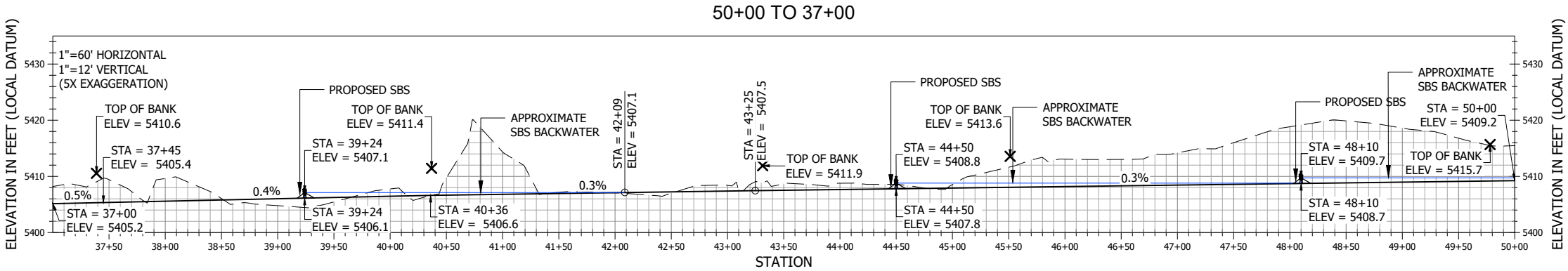
MOFFAT COUNTY, COLORADO

Stillwater Sciences

ecos  
ecosystem services LLC



- LEGEND**
- EXISTING CENTER PIVOT ROCK RAMPS
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  - LITTLE JOE CREEK PROPOSED SBS WITH 6 IN DEPRESSION (SEE SHEET 35)



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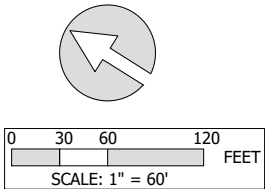
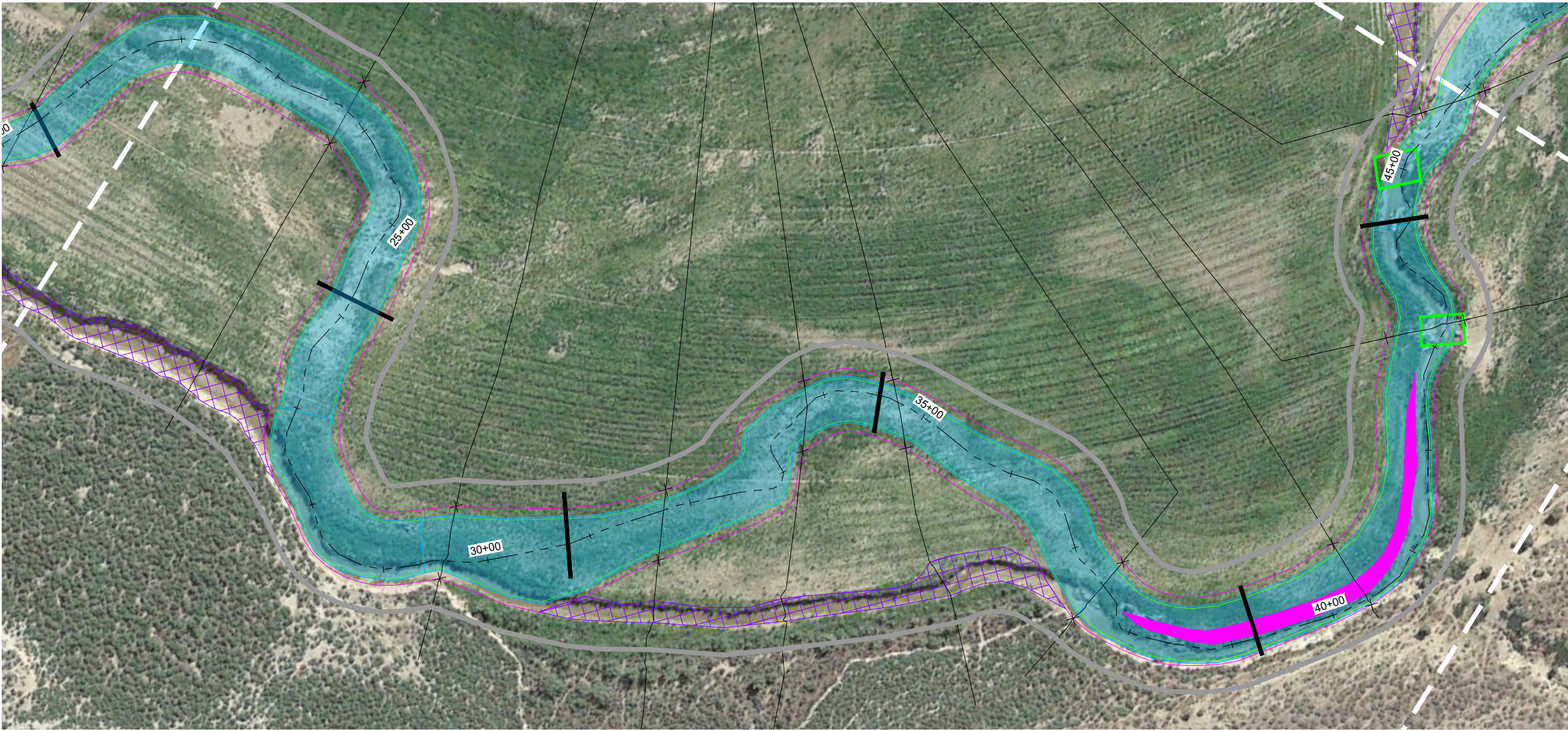
DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

P&P 50+00 TO 37+00

SHEET 6

LAST SAVED: 6/17/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-DRYSCALE-25S IF BAK DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY





- LEGEND
- EXISTING CENTER PIVOT ROCK RAMPS

PROPOSED WETLAND RESTORATION

PROPOSED INSET FLOODPLAIN TOP OF BANK

PROPOSED INSET FLOODPLAIN TOE OF BANK

PROPOSED INSET FLOODPLAIN 25 FT AQUATIC RESOURCE BUFFER

PROPOSED FILL AREA

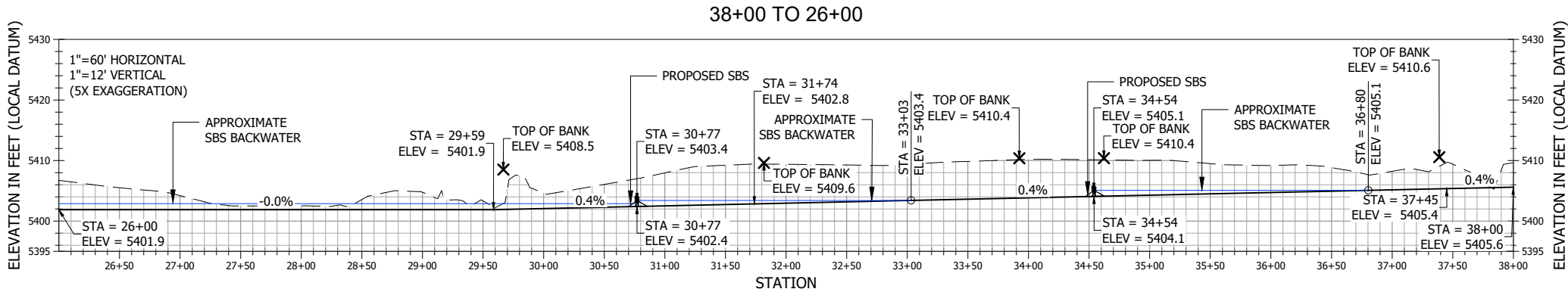
RIPARIAN AREA TO REMAIN IN PLACE

PROPOSED CONDITIONS MODEL/CONSTRUCTION CROSS-SECTIONS (SEE SHEETS 10 - 24)

VERMILLION CREEK PROPOSED SIMULATED BEAVER STRUCTURES (SBS) (SEE SHEET 26)

FLOW PATHS

LITTLE JOE CREEK PROPOSED SBS WITH 6 IN DEPRESSION (SEE SHEET 35)

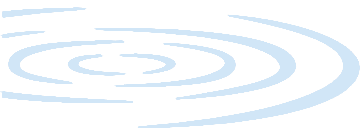


VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences

ecos  
ecosystem services LLC



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SCALE: AS NOTED

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DESIGN: JB/TS/RB

DRAWN: TS/EP/KE

CHECKED: TS/RB

APPROVED:

P&P 38+00 TO 26+00

SHEET 7

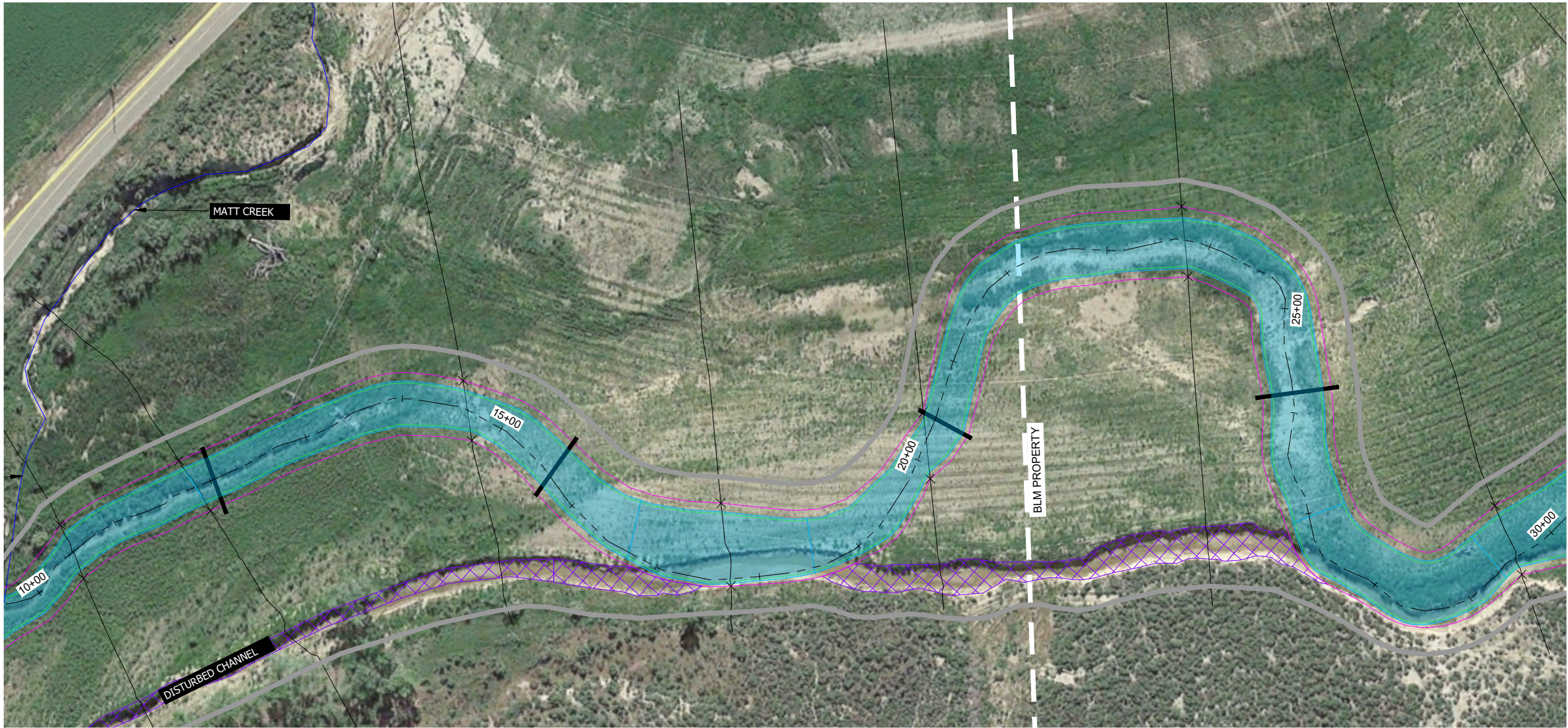
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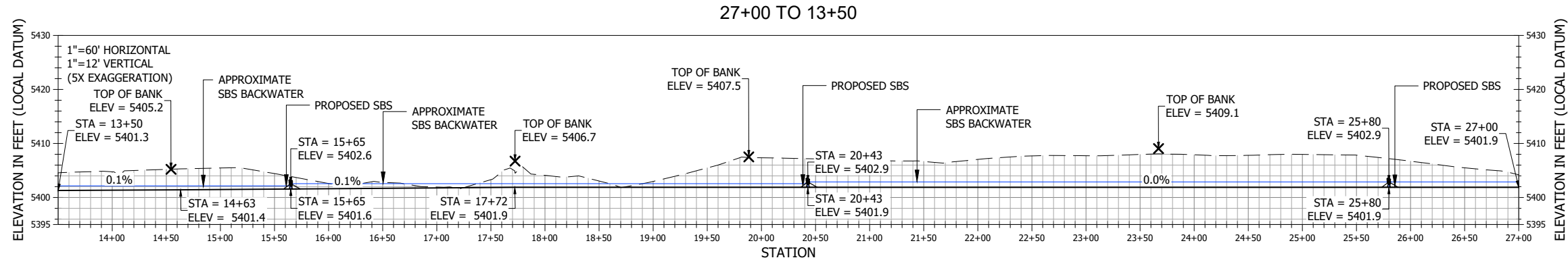
VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



- LEGEND**
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  - FLOW PATHS
  - LITTLE JOE CREEK PROPOSED SBS WITH 6 IN DEPRESSION (SEE SHEET 35)



PROJECT NUMBER: 880.00  
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DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

P&P 27+00 TO 13+50

SHEET 8

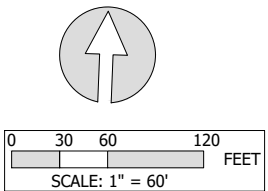


VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

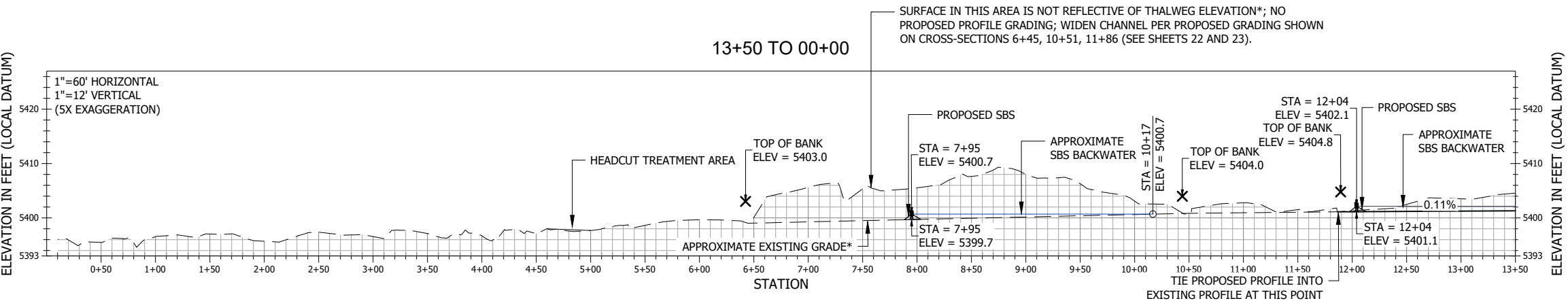
Stillwater Sciences

ecos  
ecosystem services LLC



LEGEND

- |  |   |  |  |
|--|---|--|--|
|  | EXISTING CENTER PIVOT ROCK RAMPS                        |  | PROPOSED CONDITIONS MODEL/CONSTRUCTION CROSS-SECTIONS (SEE SHEETS 10 - 24) |
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|  | PROPOSED FILL AREA                                      |  |  |
|  | RIPARIAN AREA TO REMAIN IN PLACE                        |  |  |



\* APPROXIMATE EXISTING GRADE LINE, BASED ON SITE OBSERVATION AND SURVEY DATA, IS SHOWN ON PROFILE IN THIS AREA DUE TO INACCURACIES IN THE SURFACE ON THALWEG ELEVATIONS IN THIS LOCALIZED AREA.

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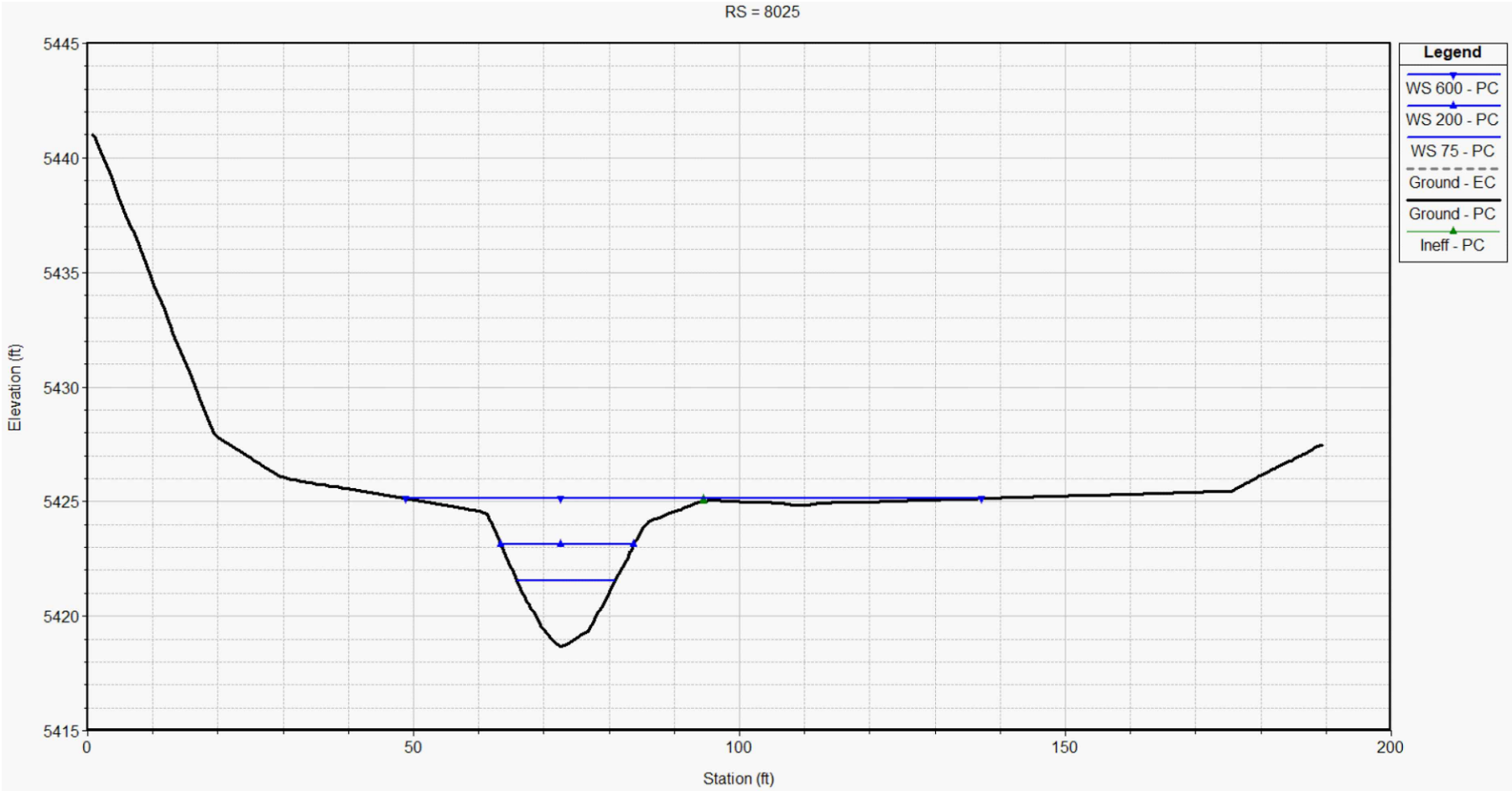
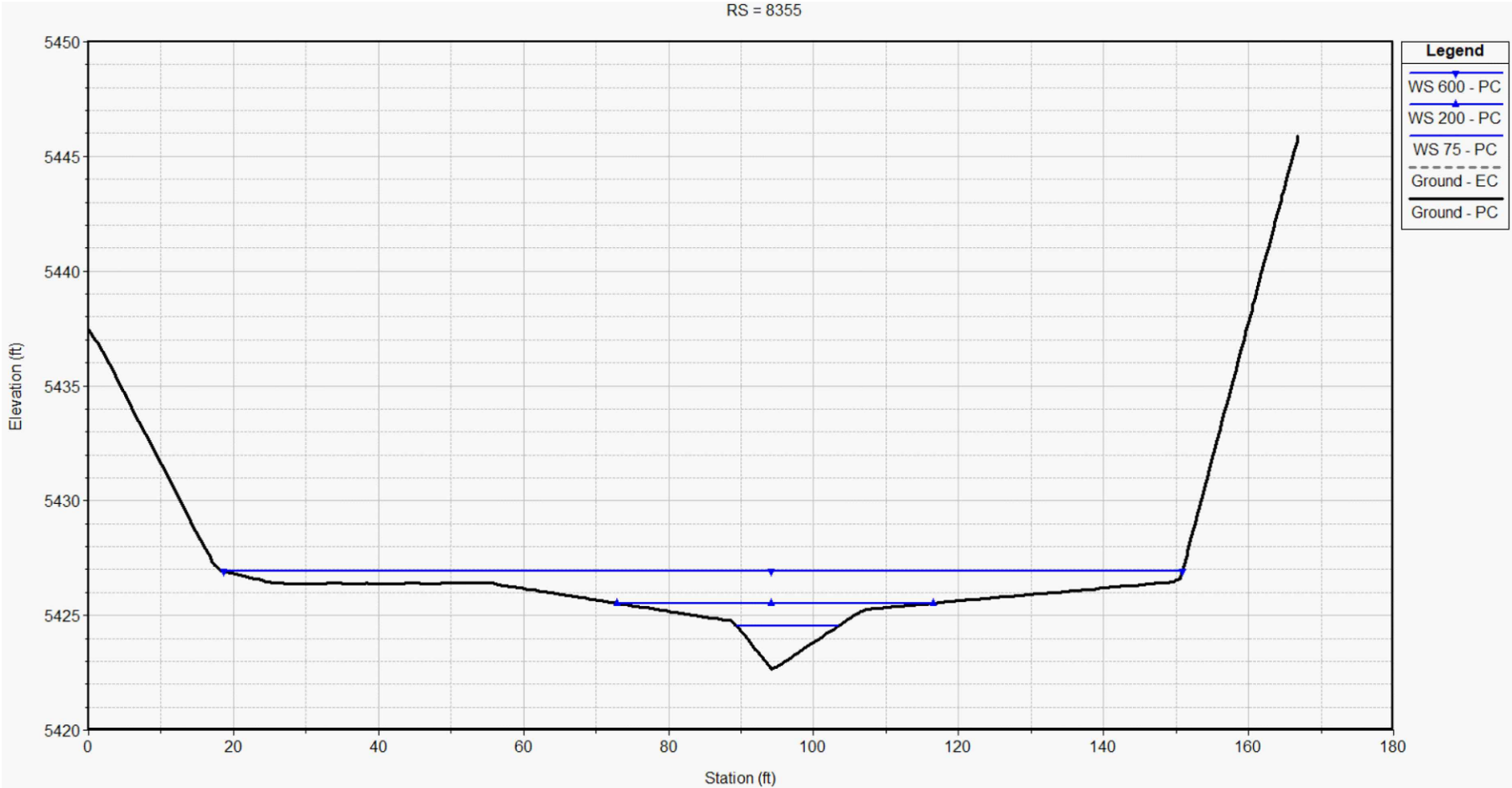
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P&P 13+50 TO 00+00

SHEET 9





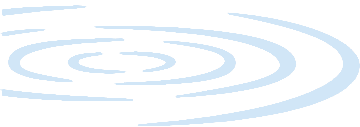
75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
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DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 83+55  
& 80+25

SHEET 10

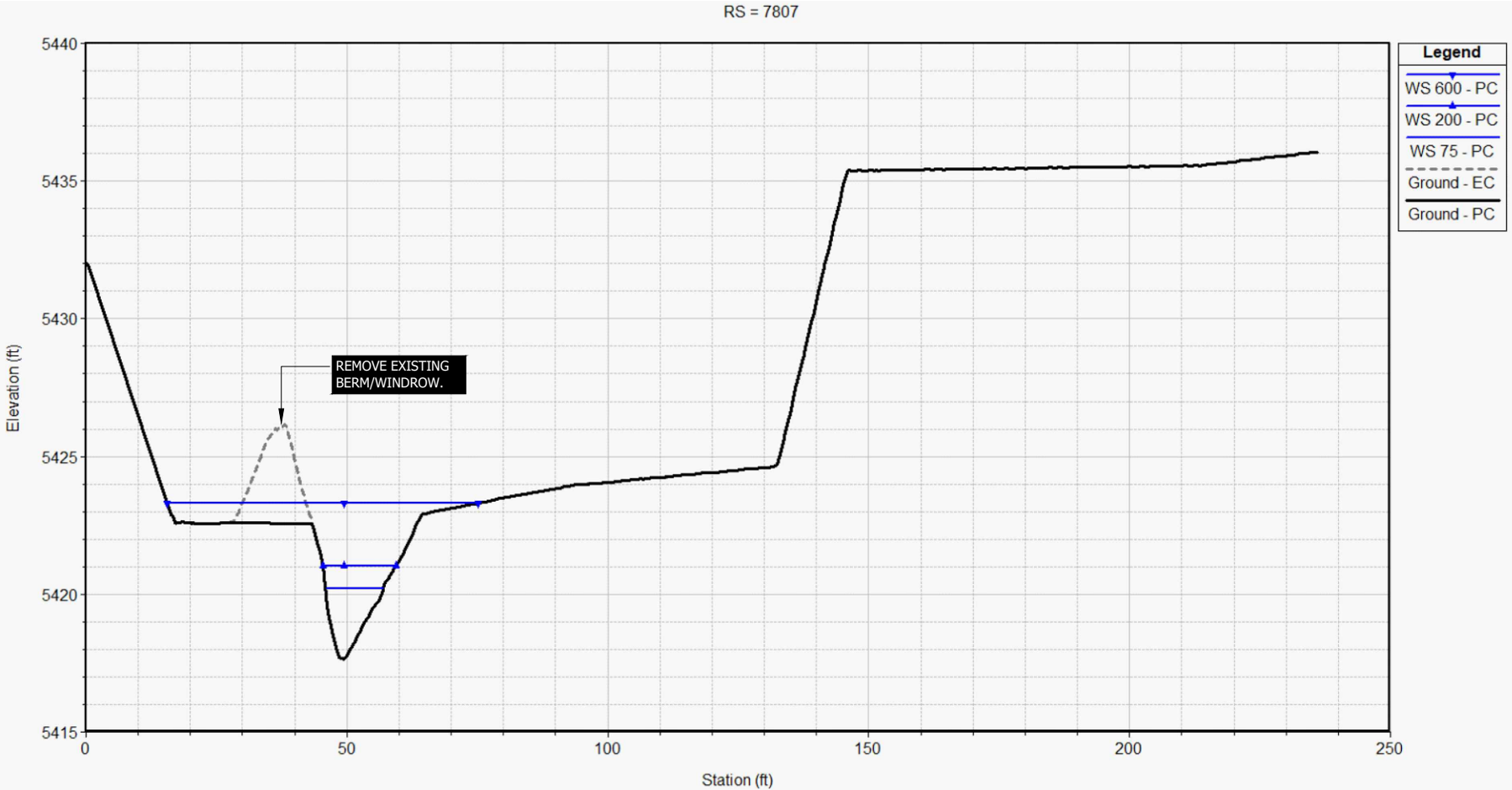
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VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
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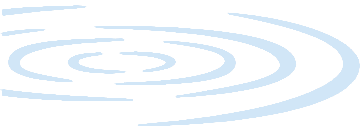
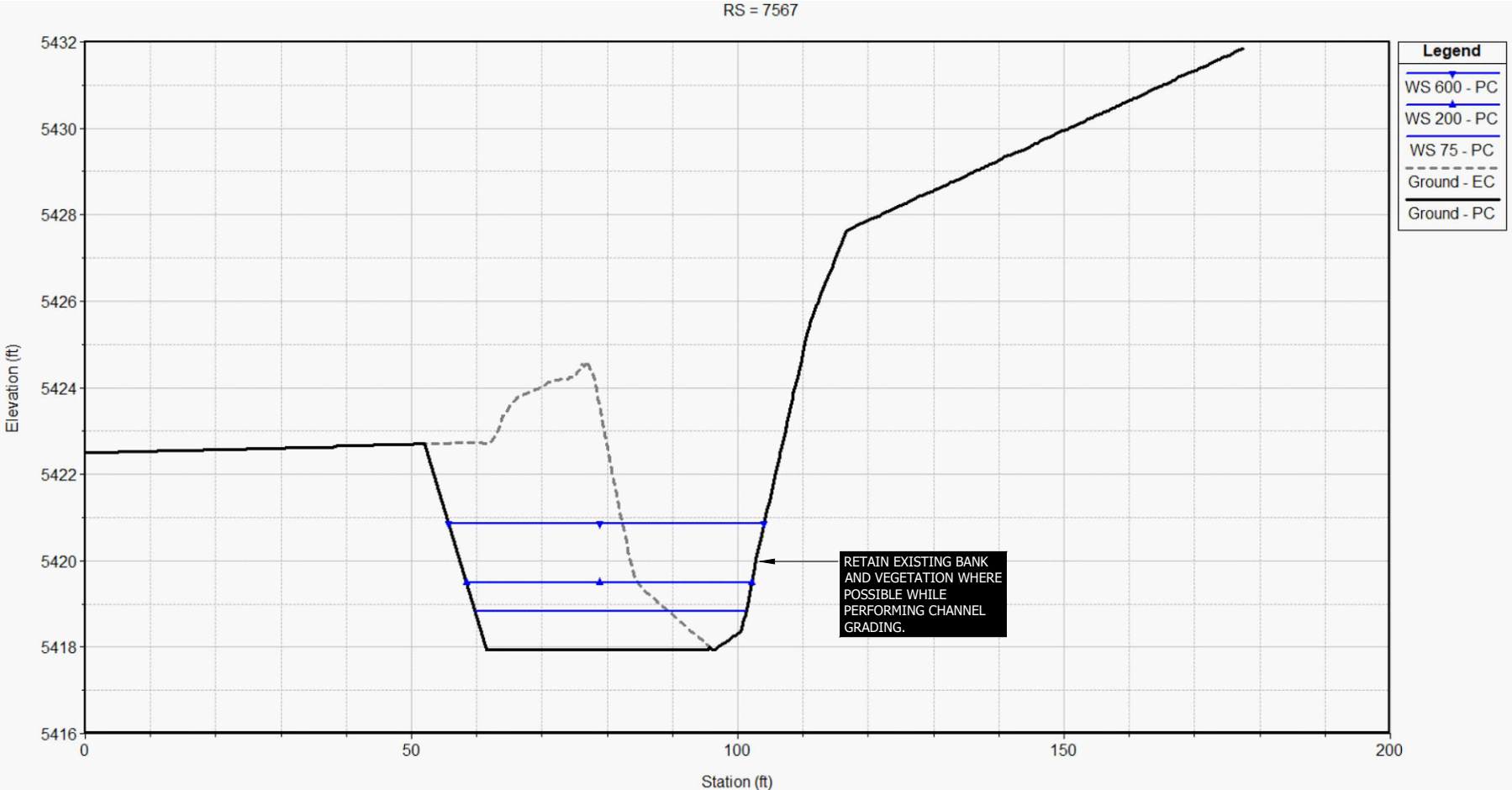
MOFFAT COUNTY, COLORADO

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75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
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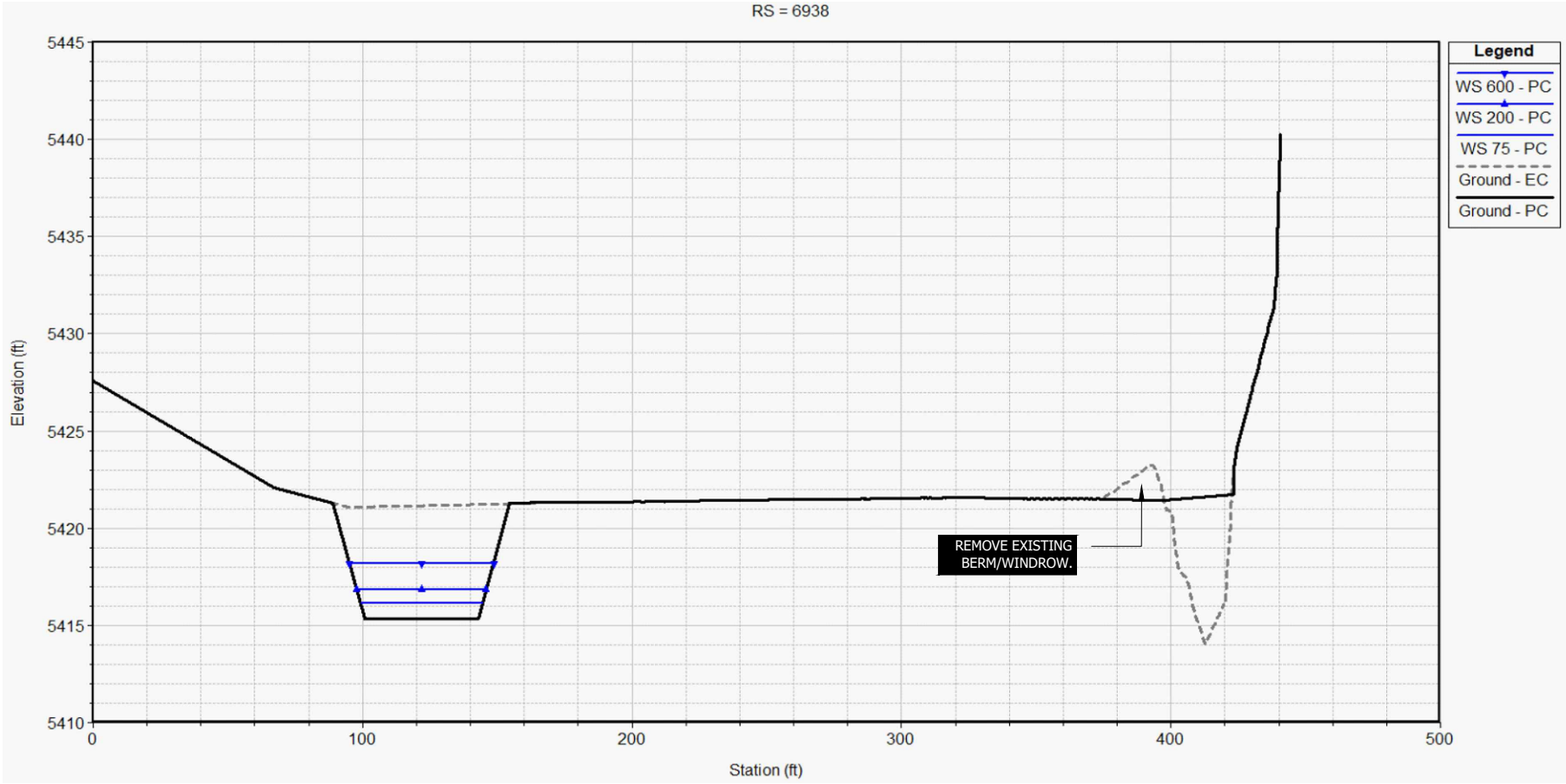
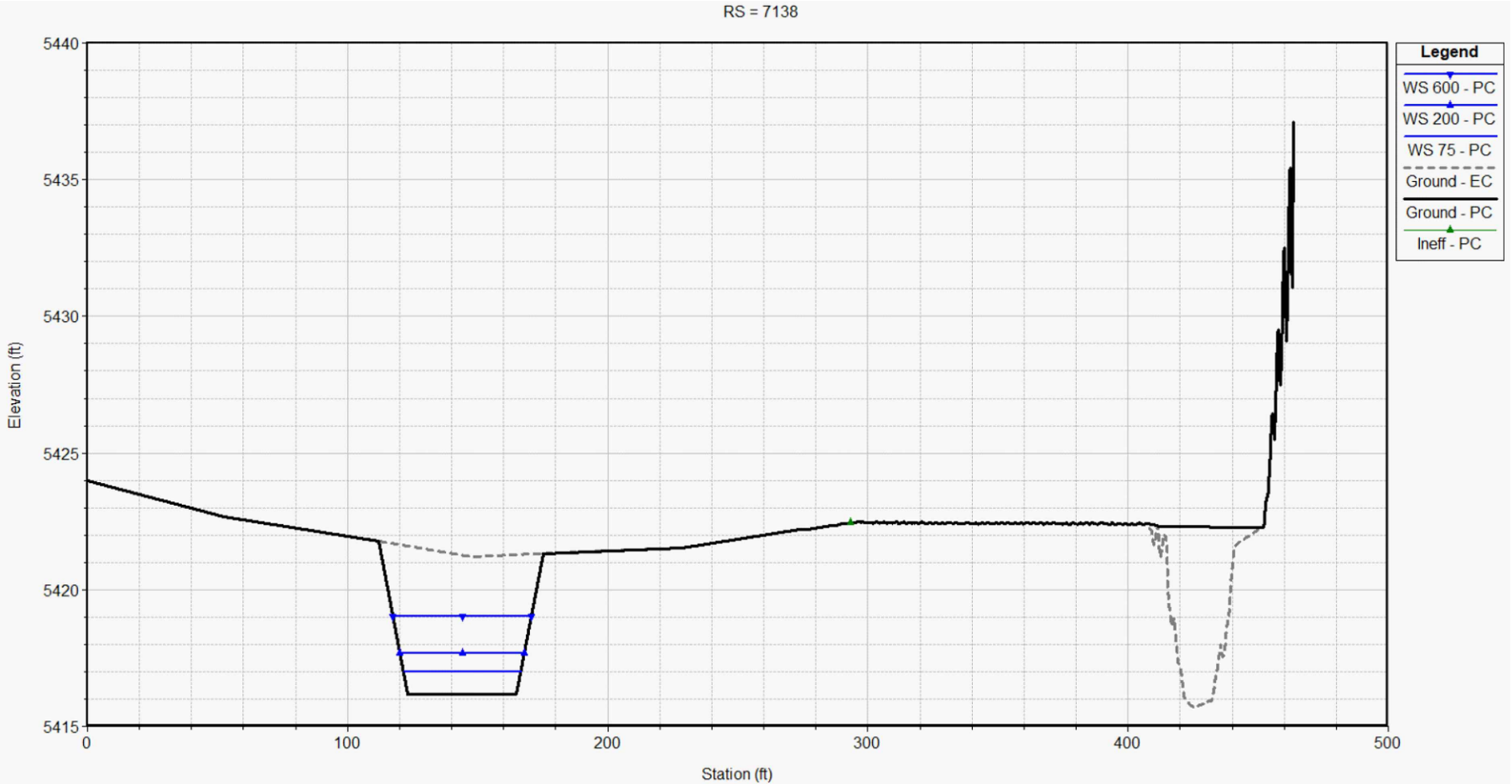
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DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 78+07  
& 75+67

SHEET 11

LAST SAVED: 6/8/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-DRAWSCALE-255 C:\STILLWATER SCIENCES\880.00 VERMILLION CREEK - DOCUMENTS\CAO SHEETS\NEG. BAS\_11.DWG IF BAK DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY





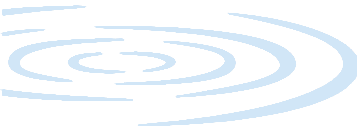
75 CFS - WETLAND CREATION FLOW  
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INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

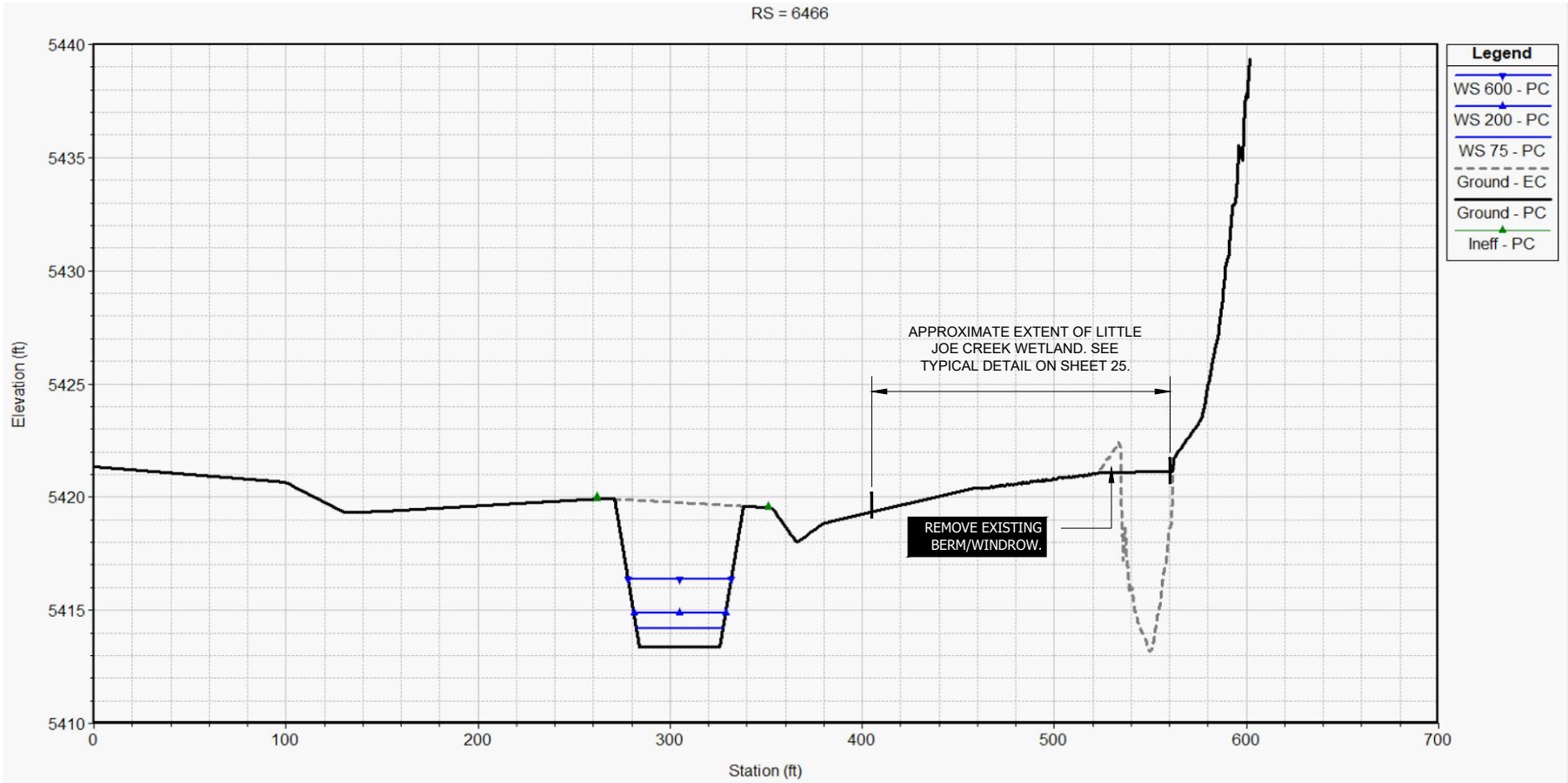
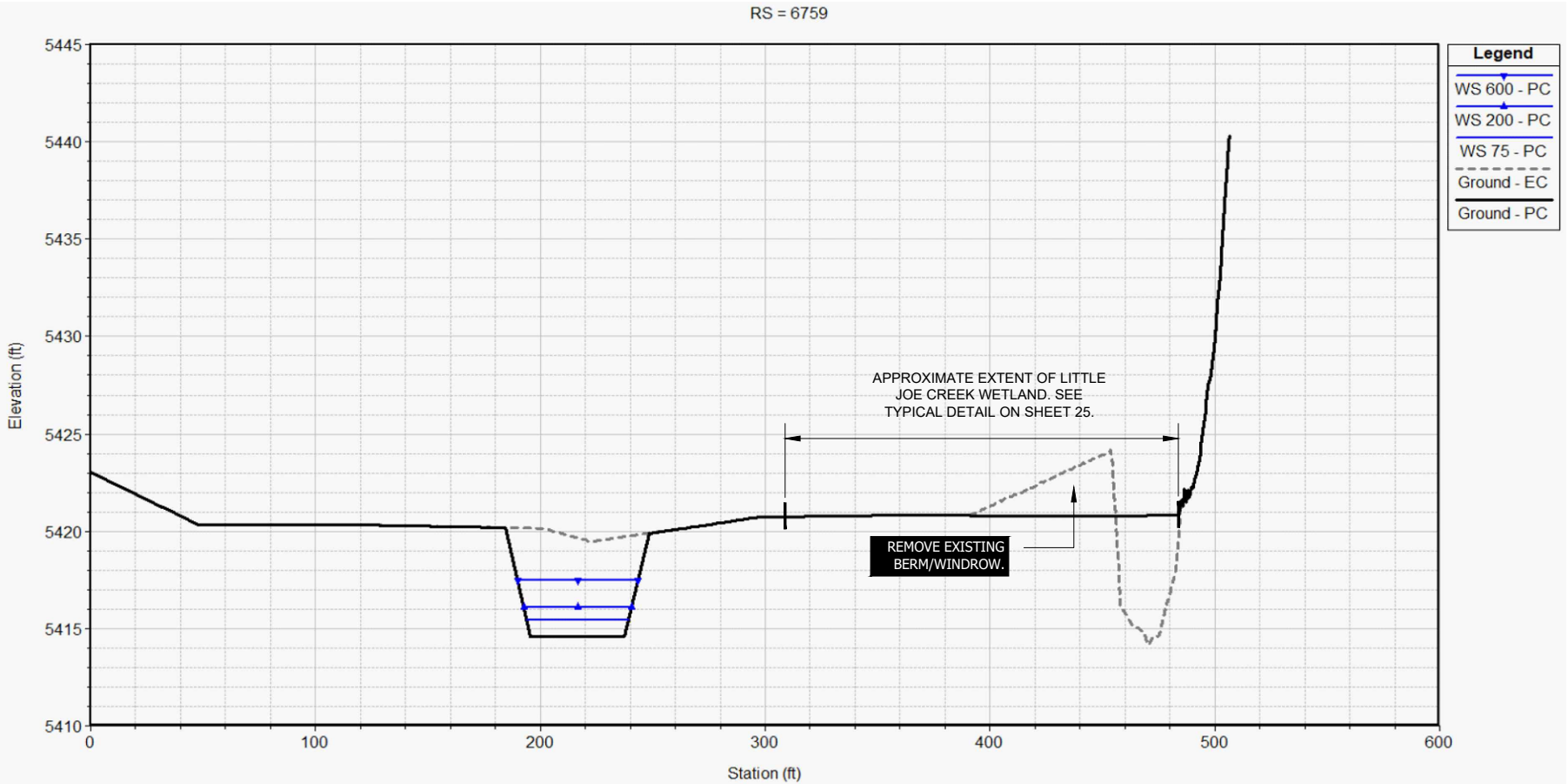
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DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 71+38  
& 69+38

SHEET 12

LAST SAVED: 6/8/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-DRAWSCALE-255 IF BAK DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY C:\STILLWATER SCIENCES\880.00 VERMILLION CREEK - DOCUMENTS\CAD SHEETS\FIG. BAK\_S12.DWG





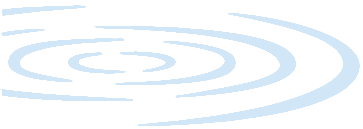
75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES VARY BY CROSS SECTION. SEE AXES INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

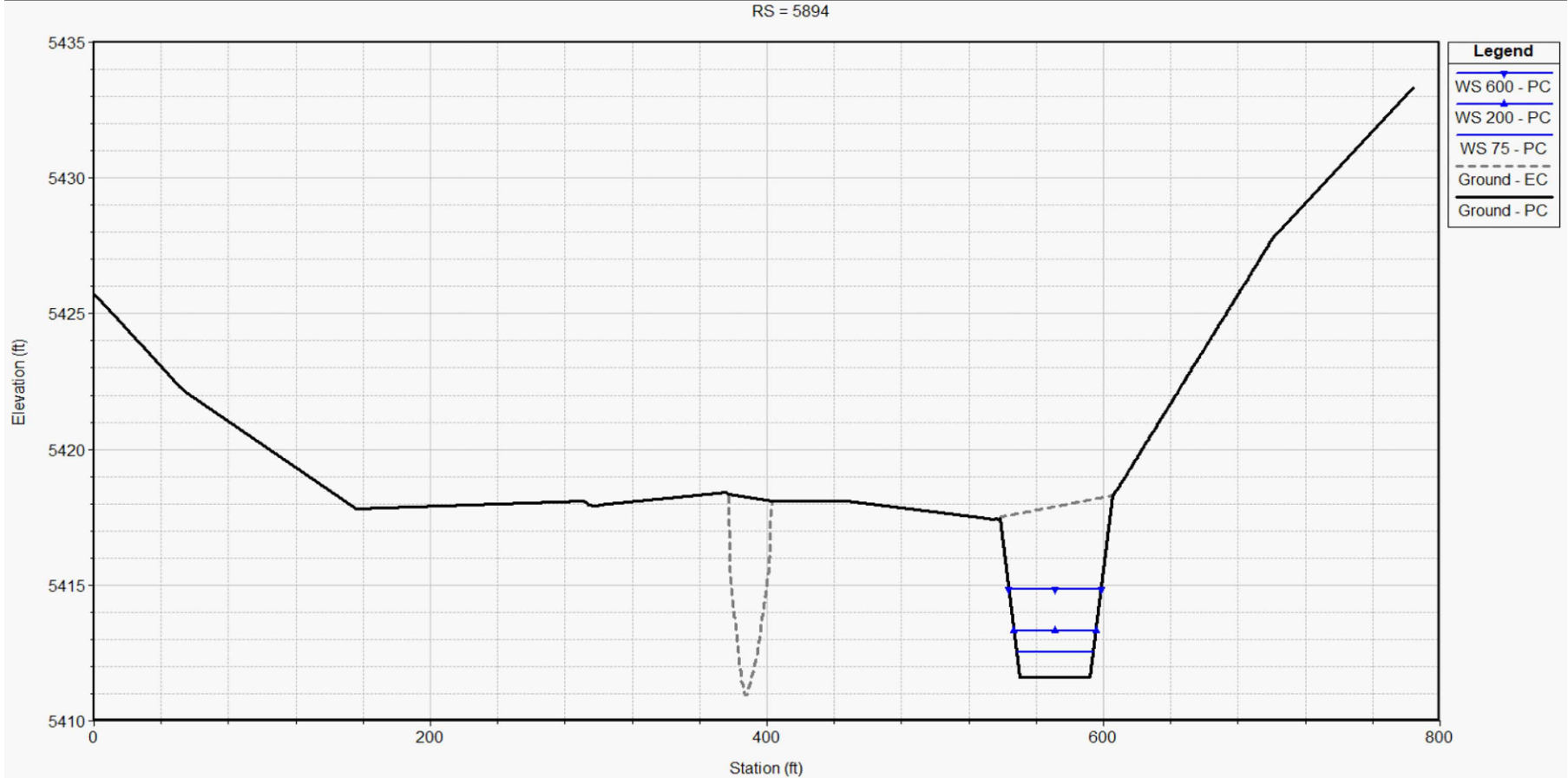
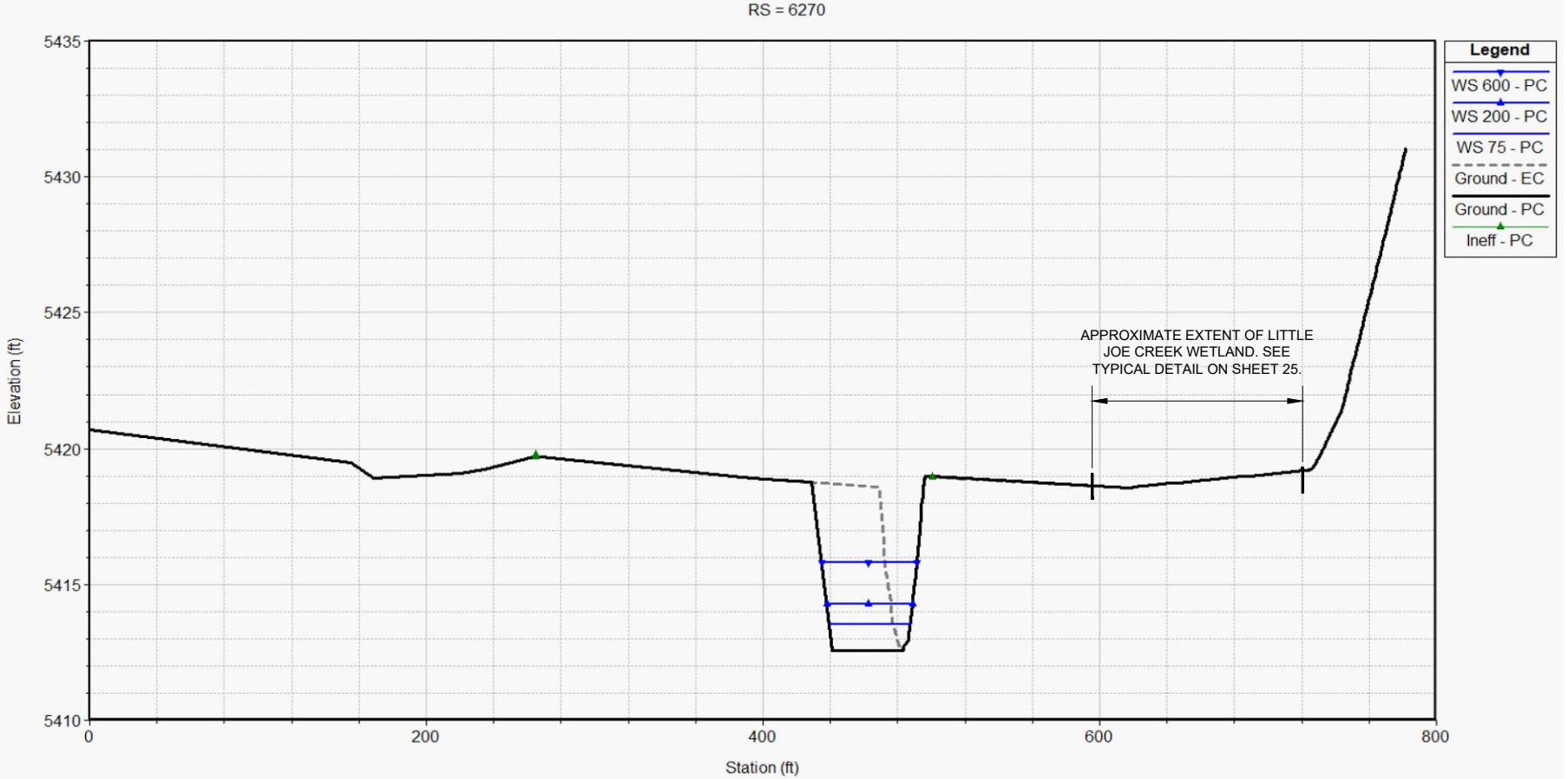
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DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 67+59  
& 64+66

SHEET 13

LAST SAVED: 6/8/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-DRYSCALE-255 C:\STILLWATER\SCIENTIST\880.00 VERMILLION CREEK - DOCUMENT\CAO SHEETS\VERMILLION\_CREEK.dwg





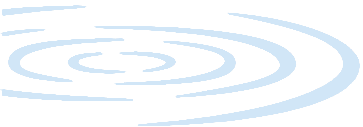
75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 62+70  
& 58+94

SHEET 14

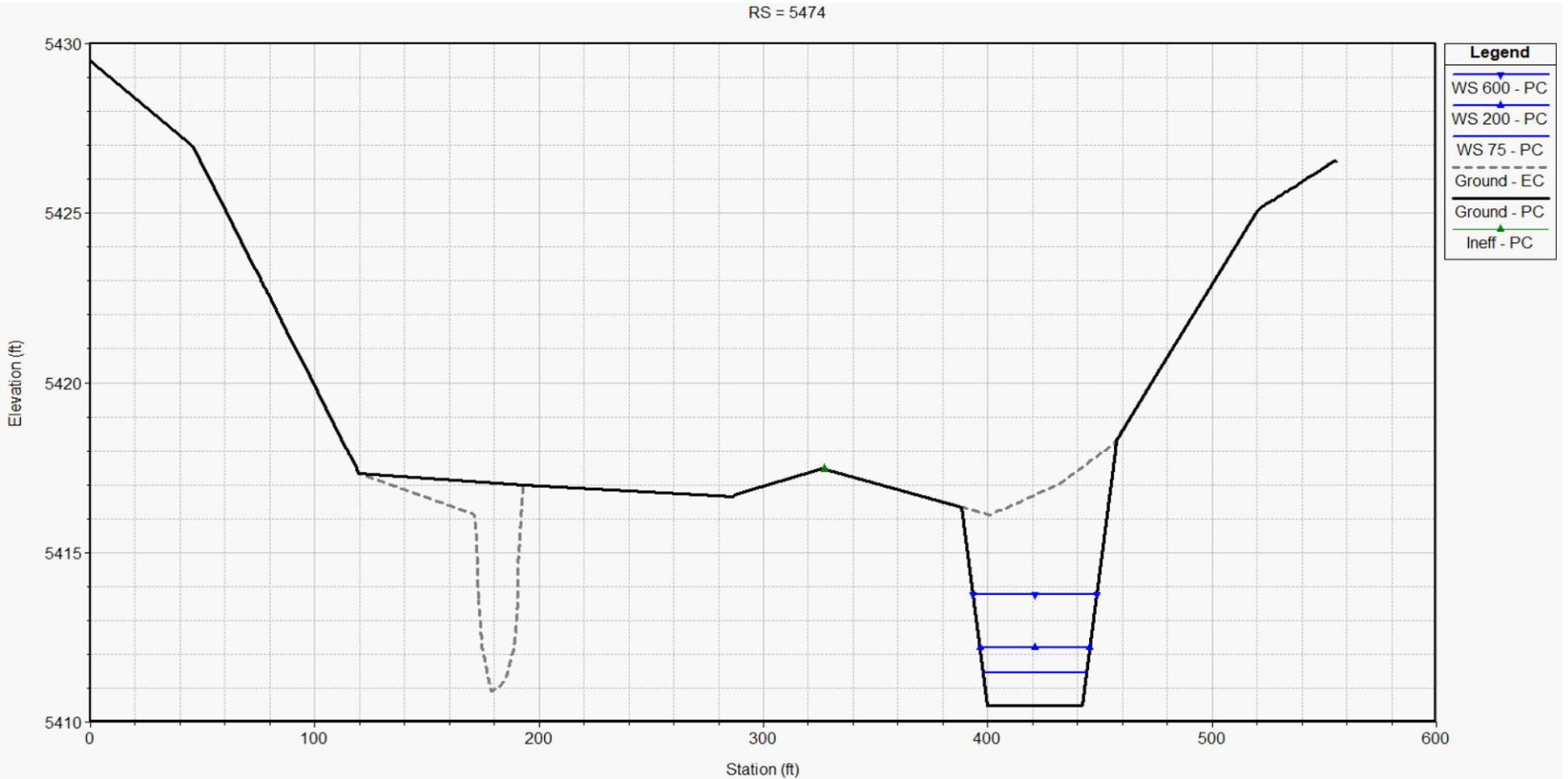
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VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

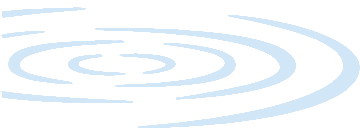
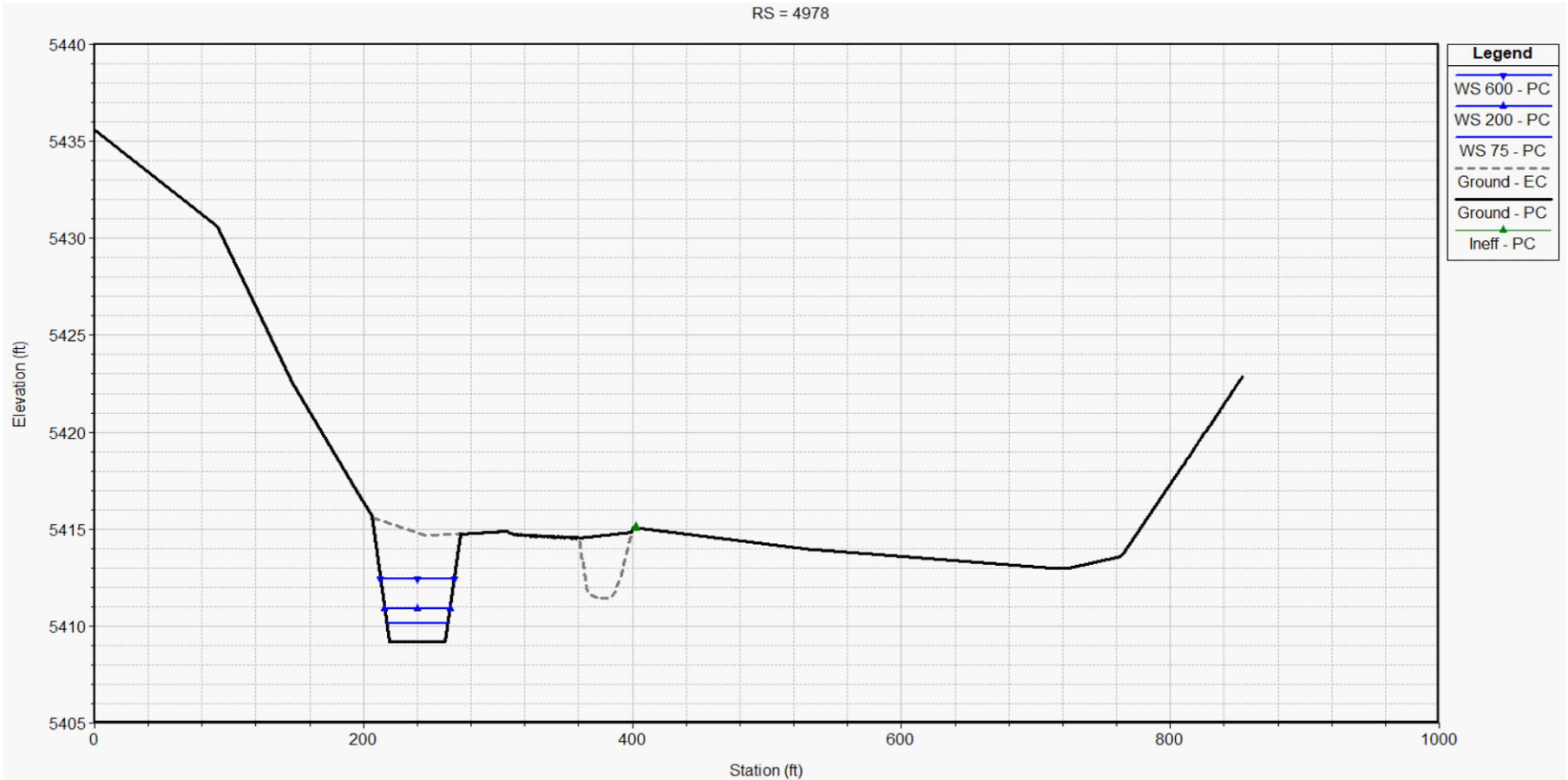
MOFFAT COUNTY, COLORADO

Stillwater Sciences



75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 54+74  
& 49+78

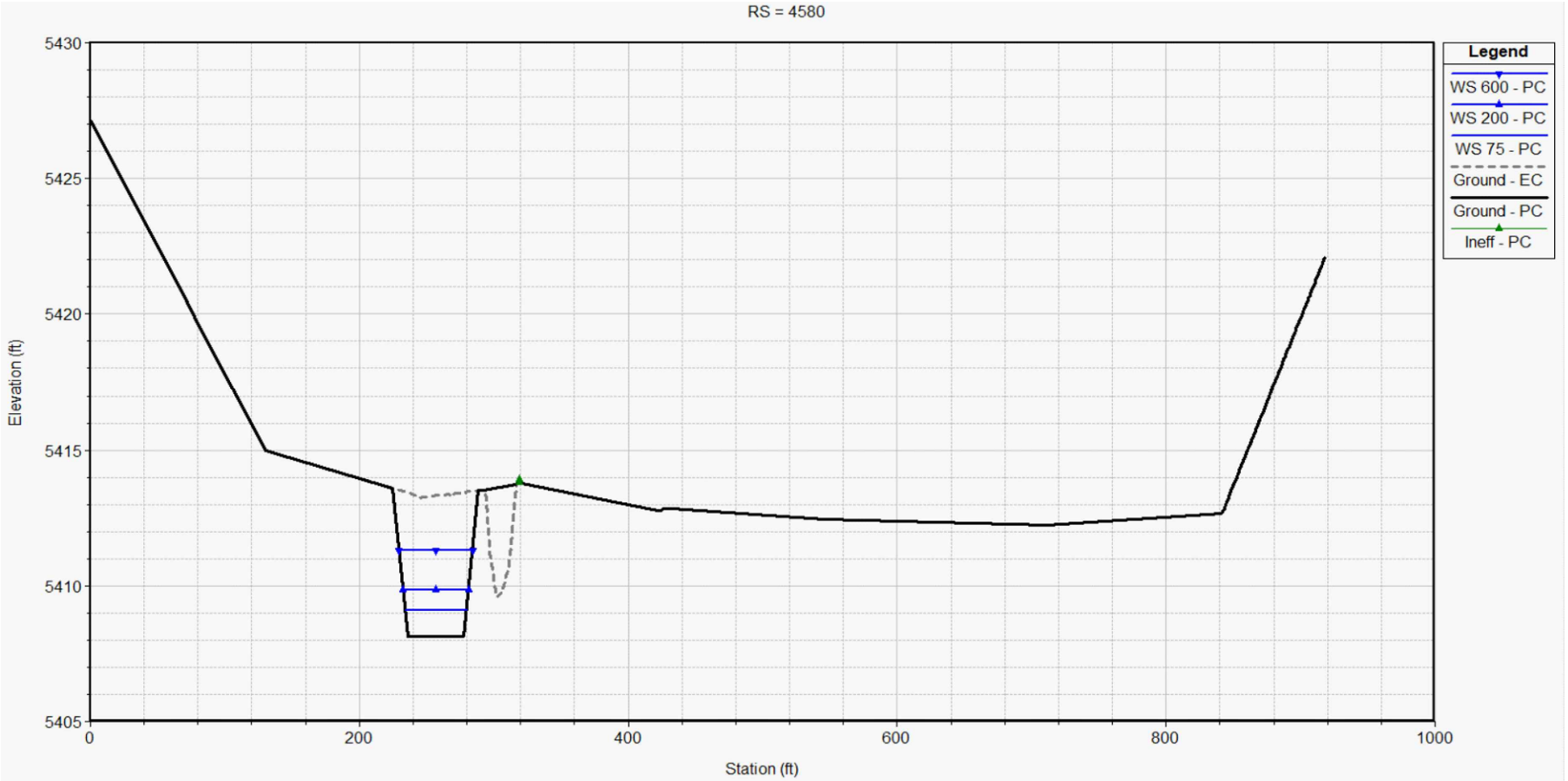
SHEET 15



VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

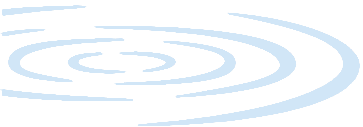
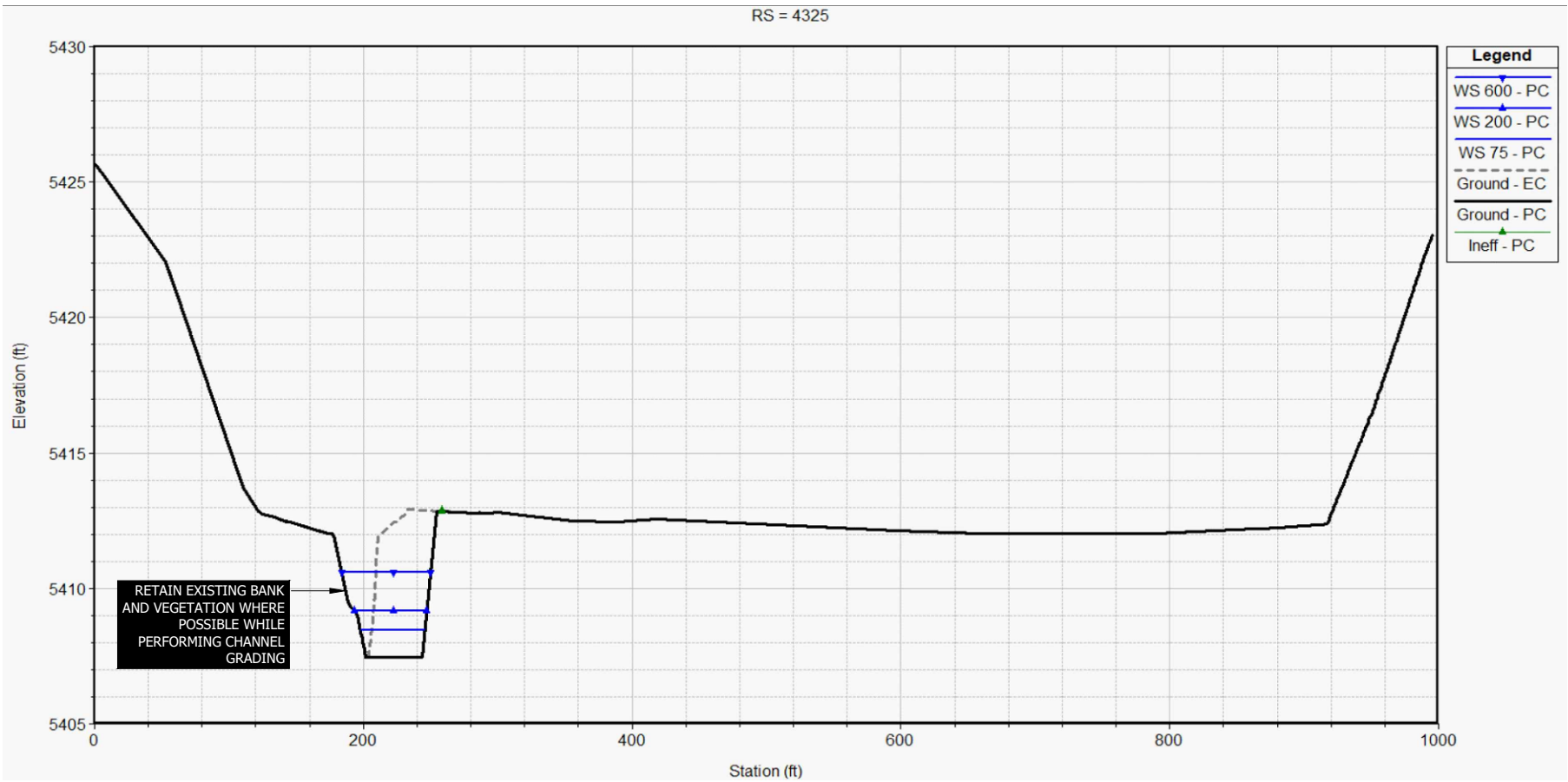
MOFFAT COUNTY, COLORADO

Stillwater Sciences



75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

DESIGN: JB/TS/RB  
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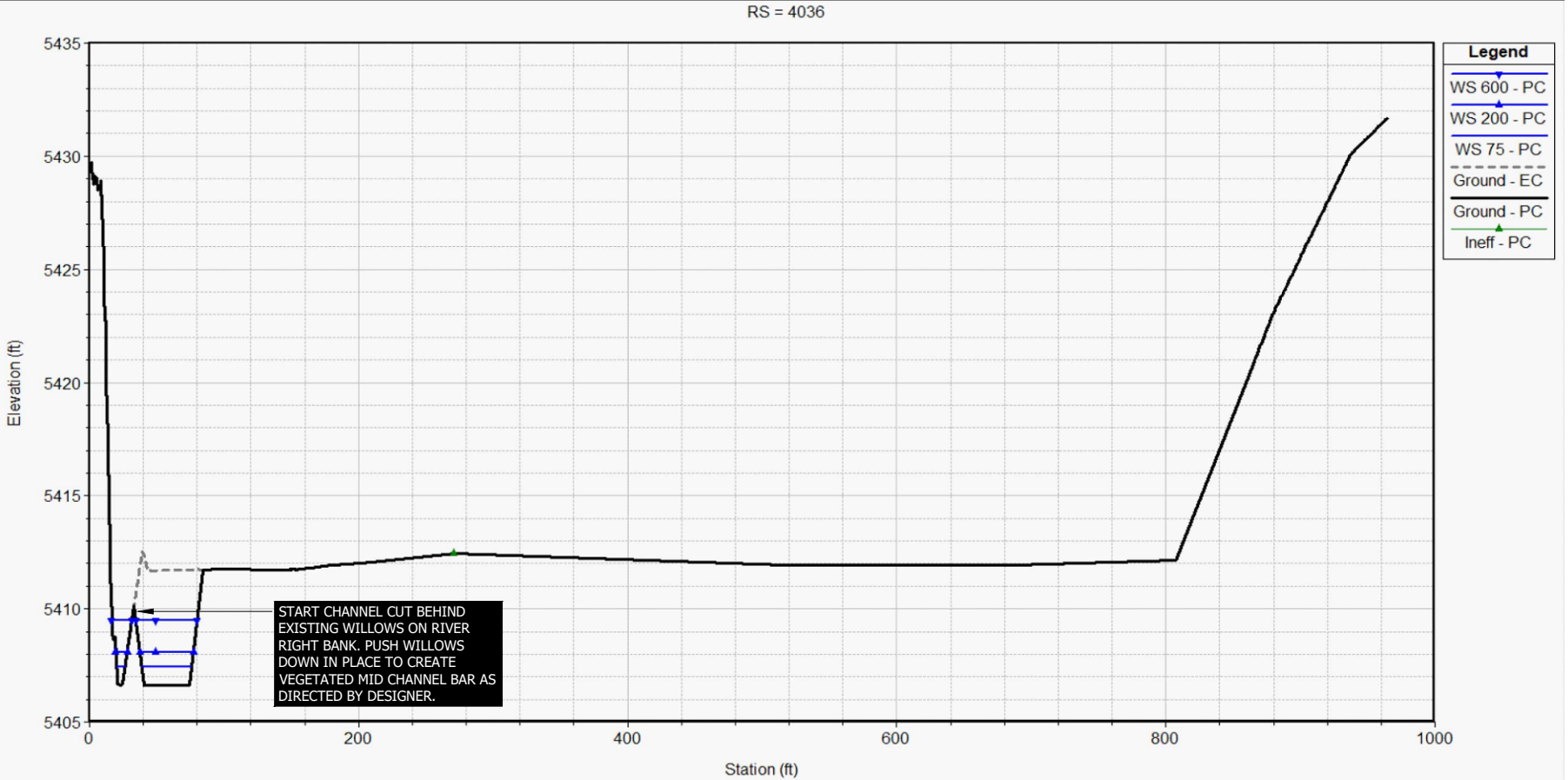
CROSS SECTIONS 45+80  
& 43+25



VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

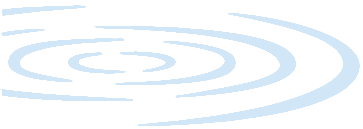
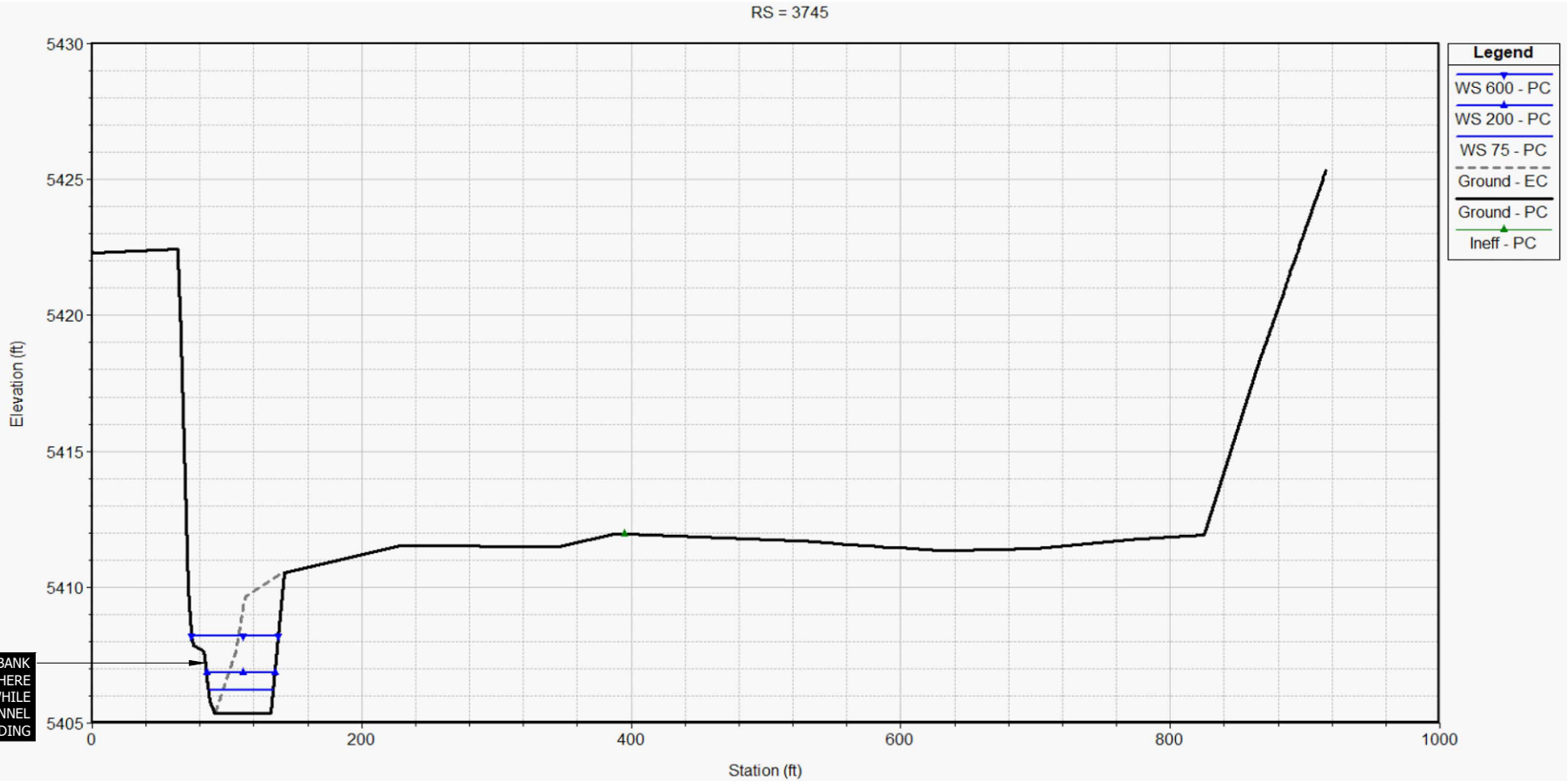
MOFFAT COUNTY, COLORADO

Stillwater Sciences



75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

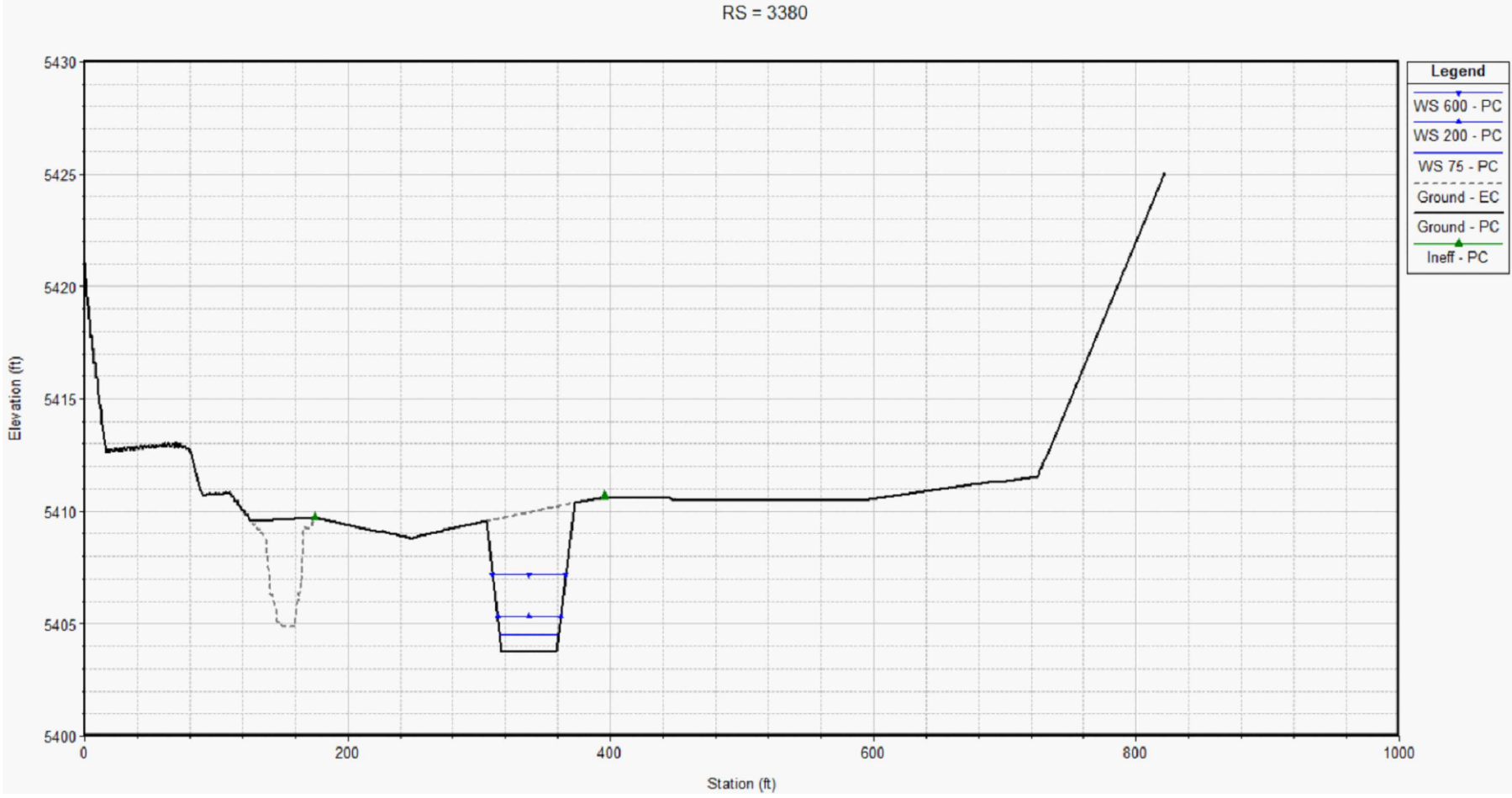
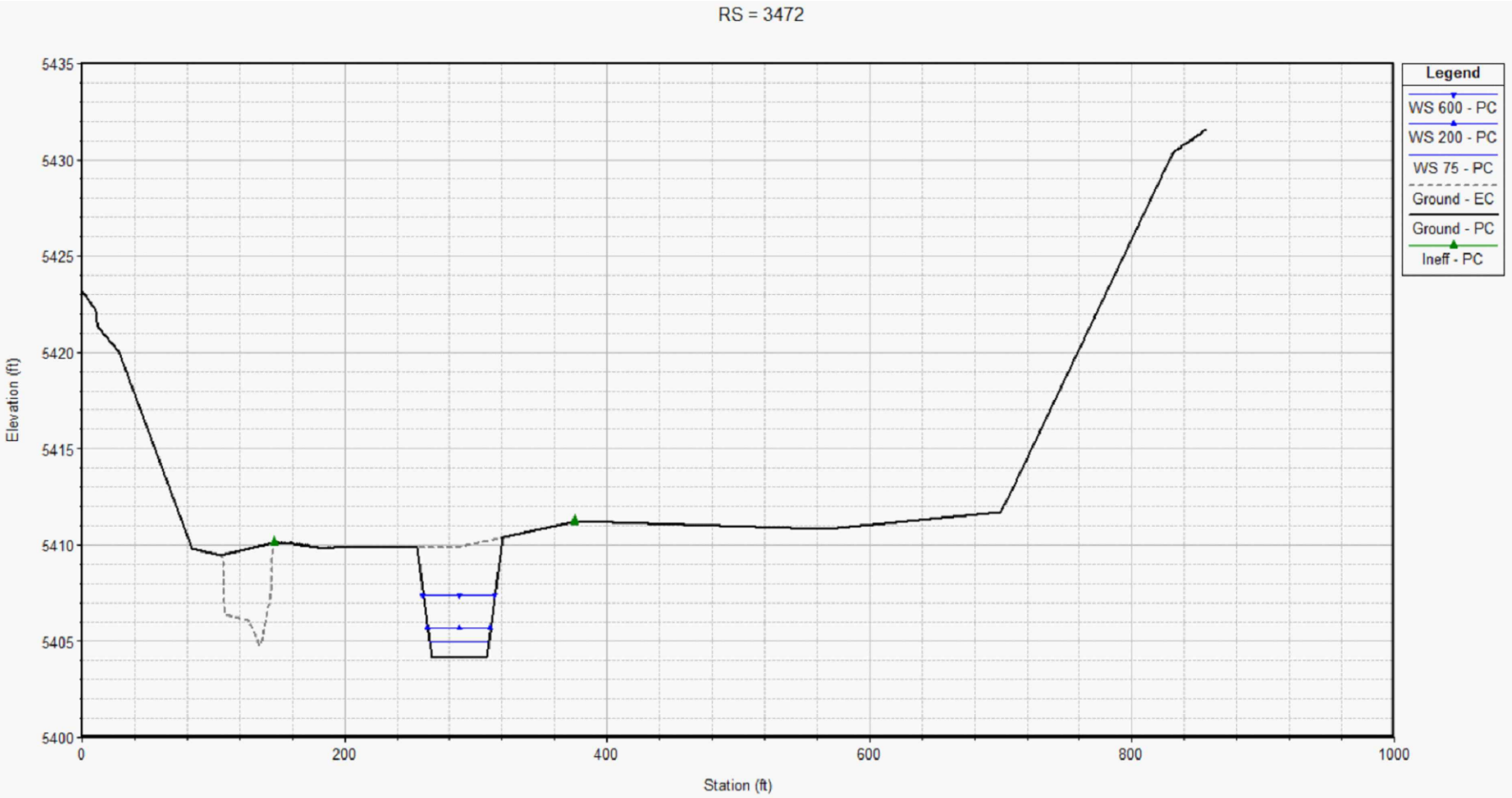
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DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 40+36  
& 37+45

SHEET 17

LAST SAVED: 6/8/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-DRYSCALE-255 C:\STILLWATER SCIENCES\880.00 VERMILLION CREEK - DOCUMENTS\CAO SHEETS\VEG. BAS\_15.DWG IF BAK DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY





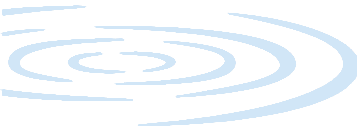
75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

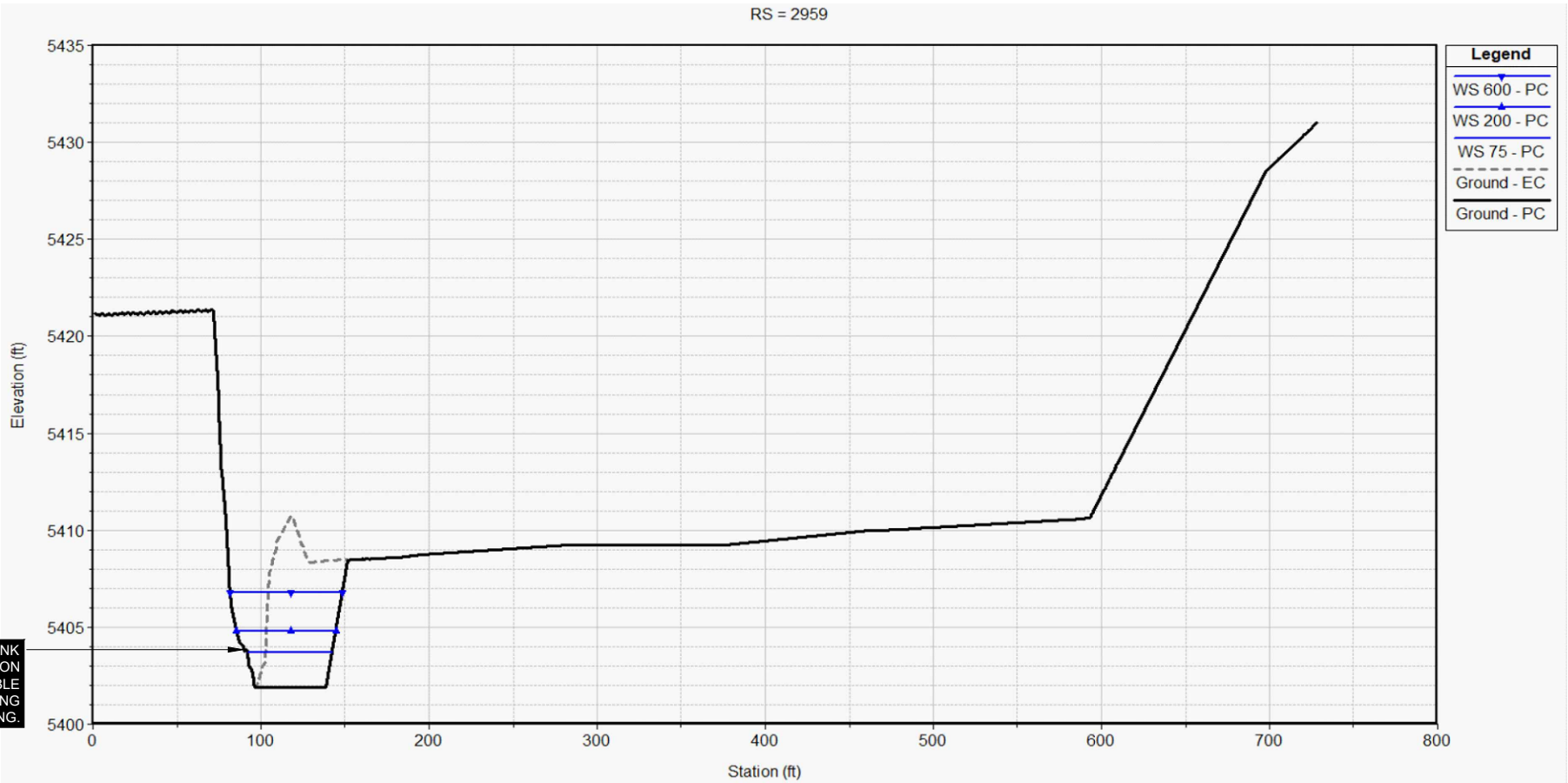
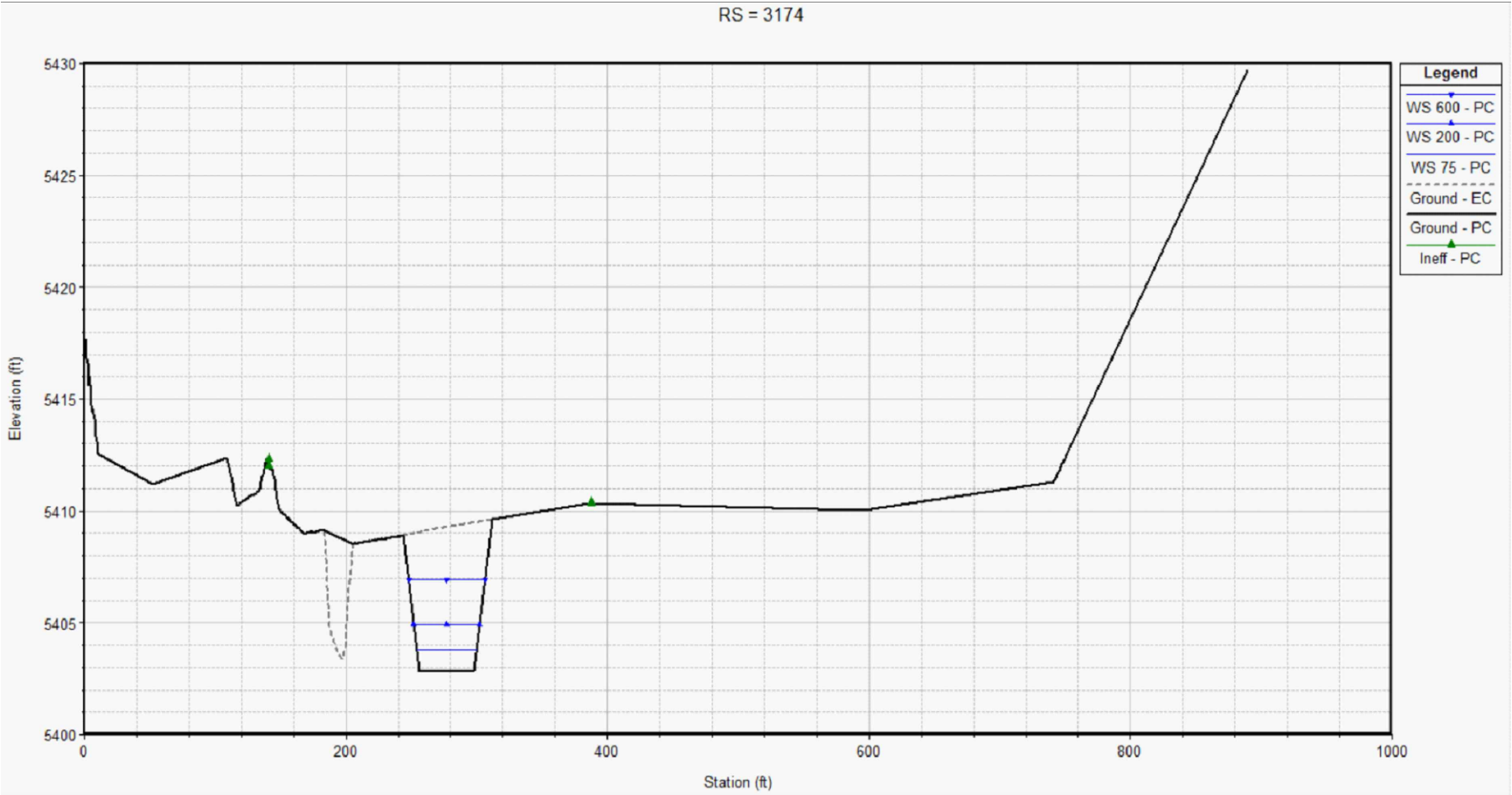
DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 34+72  
& 33+80

SHEET 18

IF BAK DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY  
LAST SAVED: 5/2/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-DRAWSCALE.ctb  
C:\STILLWATER SCIENCES\880.00 VERMILLION CREEK - DOCUMENTS\CAD SHEETS\NEG. BAS\_CSE\_P72.DWG





RETAIN EXISTING BANK  
AND VEGETATION  
WHERE POSSIBLE  
WHILE PERFORMING  
CHANNEL GRADING.

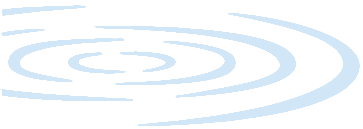
75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
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INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

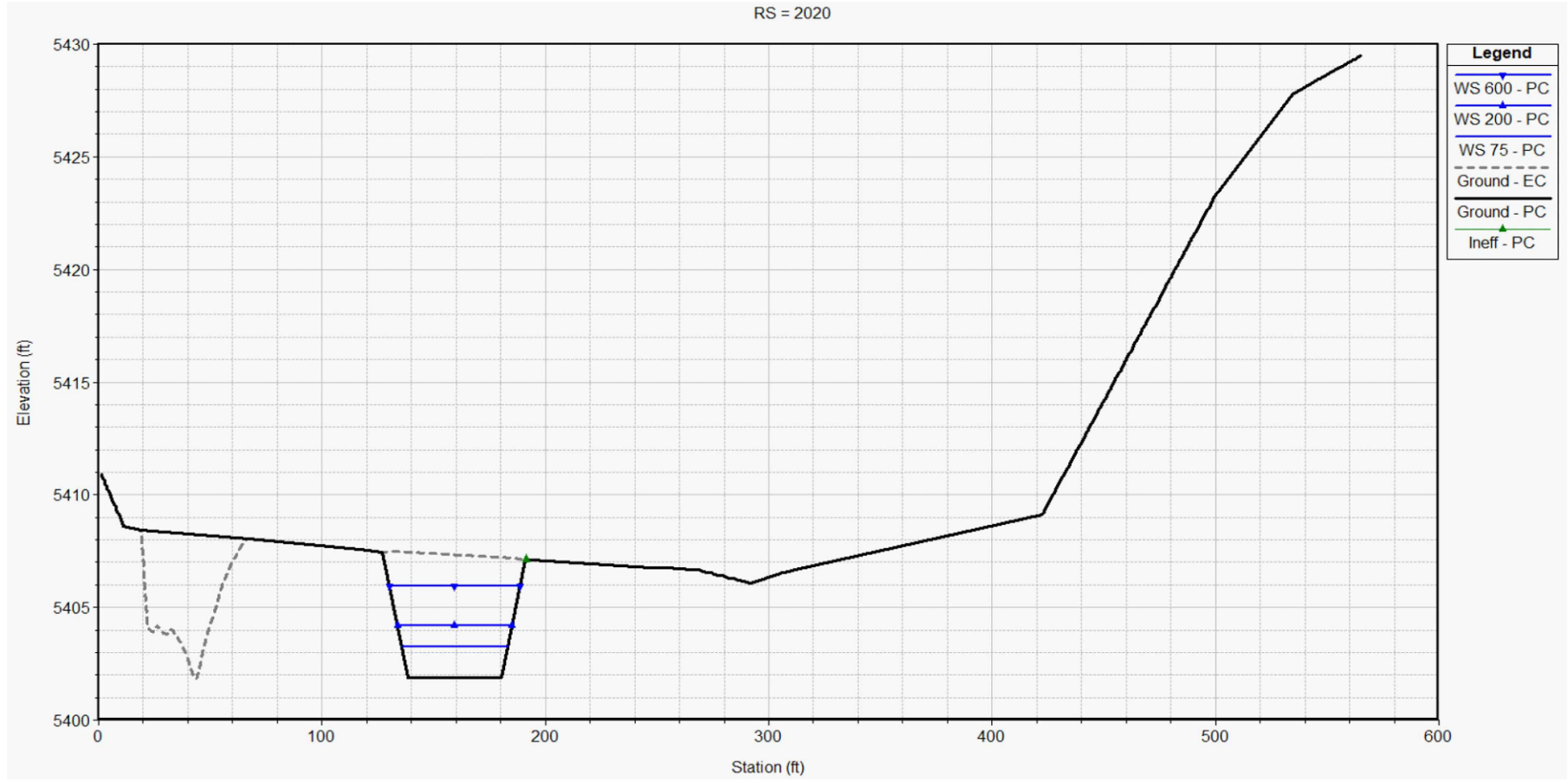
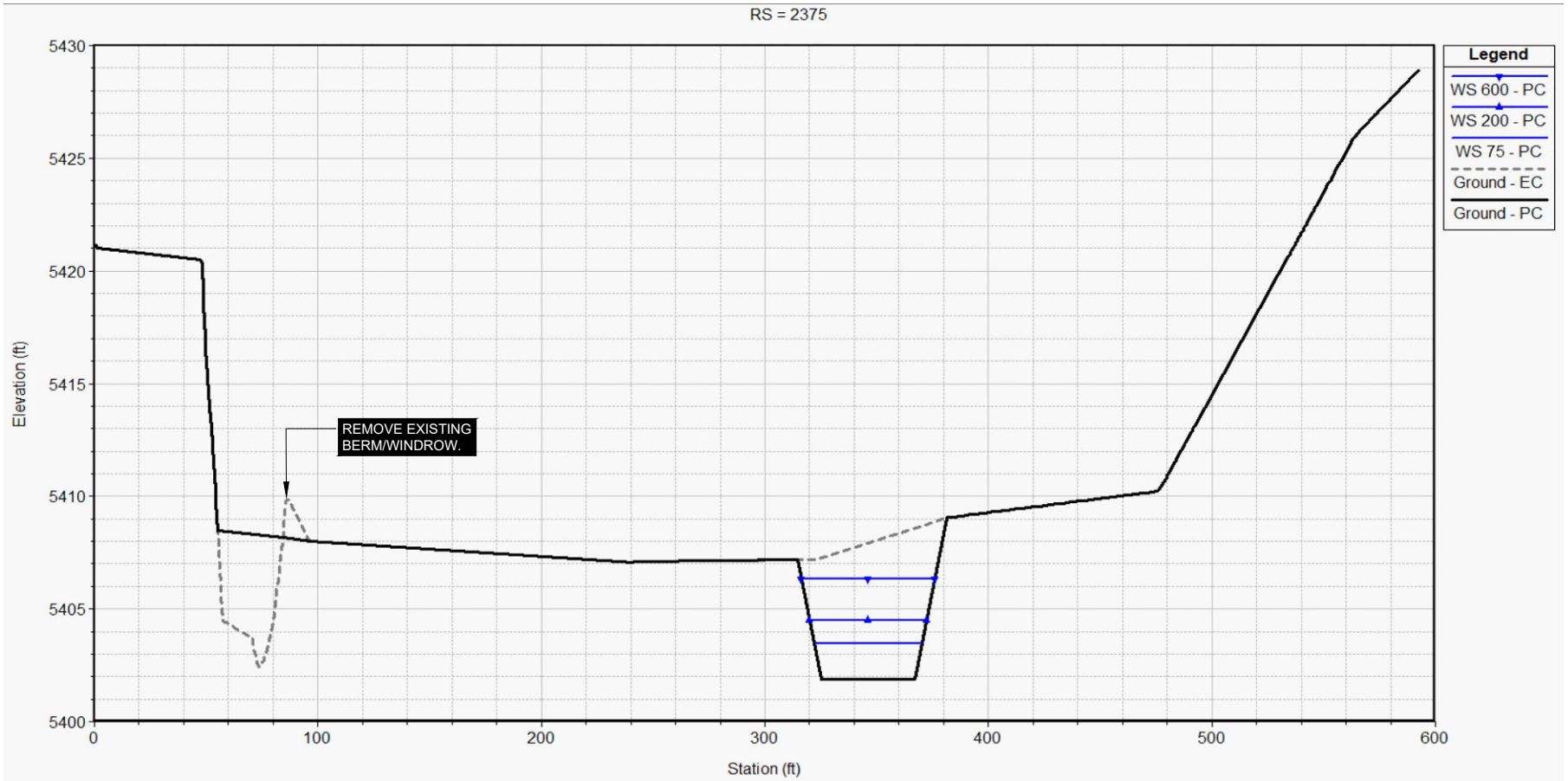
DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 31+74  
& 29+59

SHEET 19

LAST SAVED: 5/2/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-GRAYSCALE-255  
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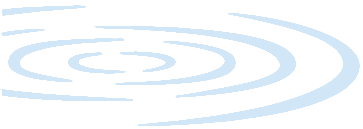
75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
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INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

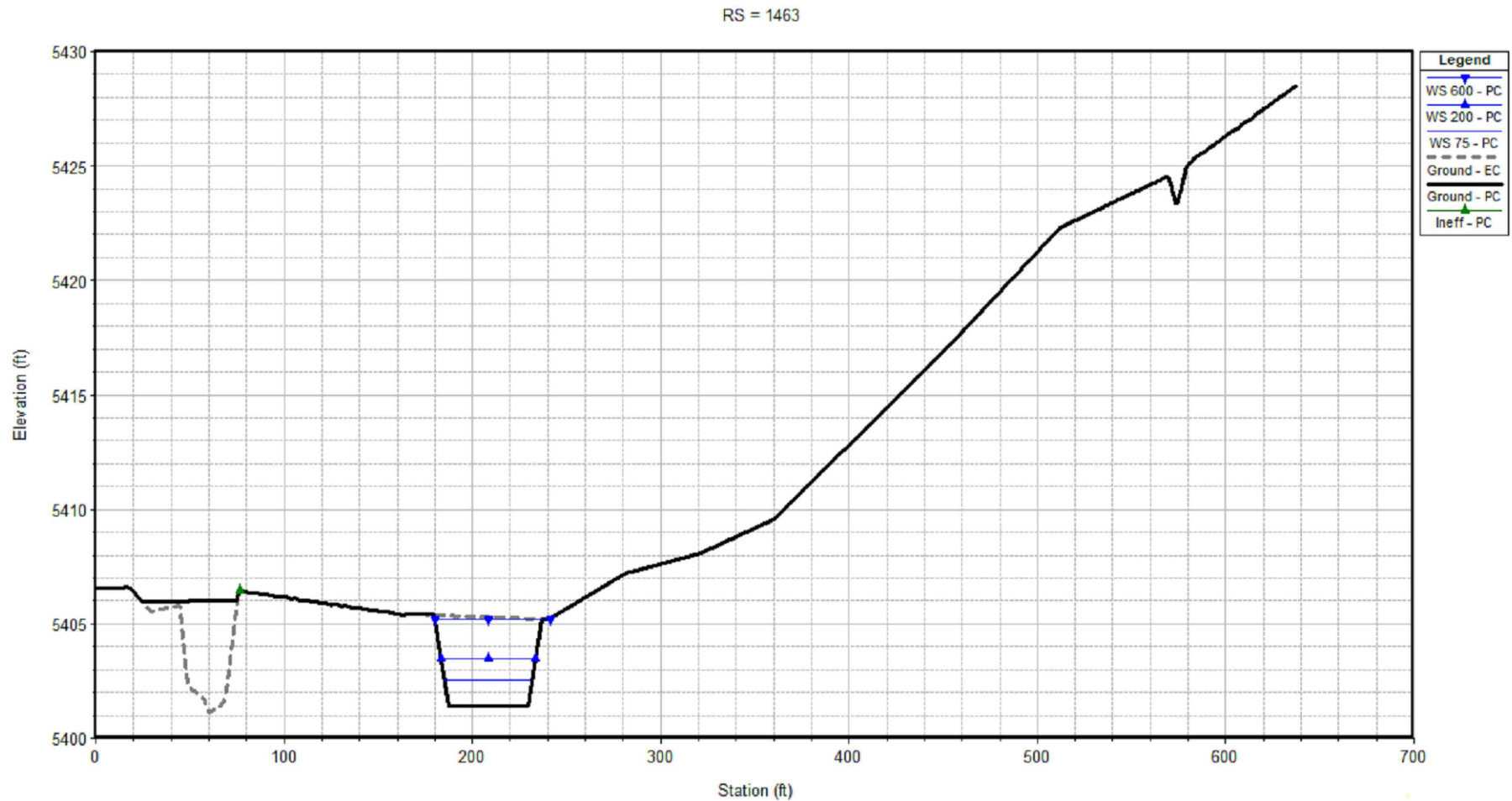
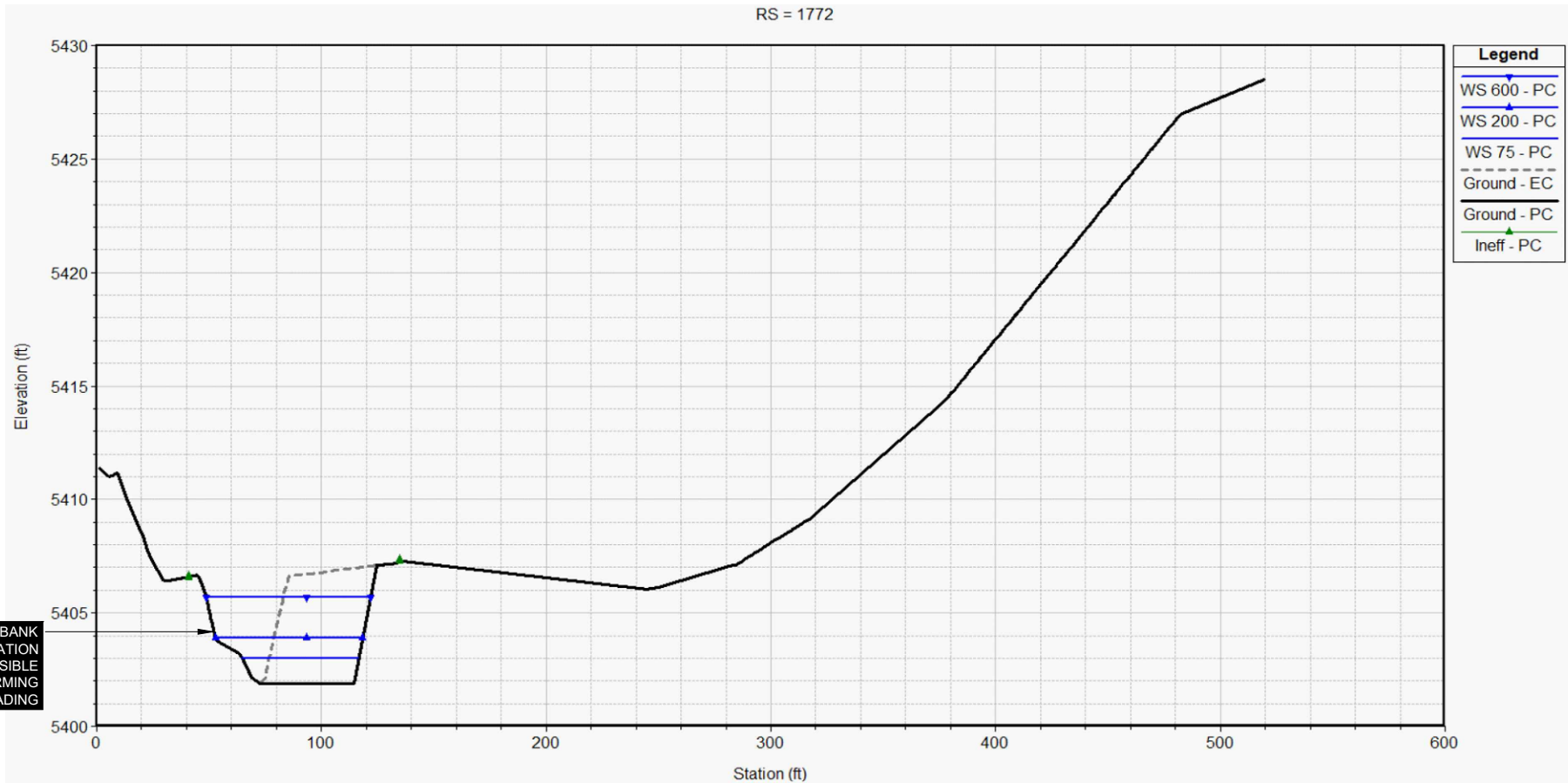
CROSS SECTIONS 23+75  
& 20+20

SHEET 20

LAST SAVED: 5/27/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-CROSS-SECTION-255 IF BAK DOES NOT MEASURE, DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY



RETAIN EXISTING BANK  
AND VEGETATION  
WHERE POSSIBLE  
WHILE PERFORMING  
CHANNEL GRADING



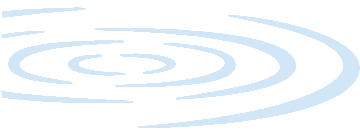
75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 17+72  
& 14+63

SHEET 21

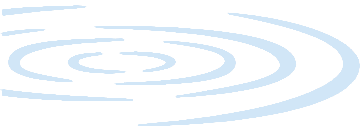
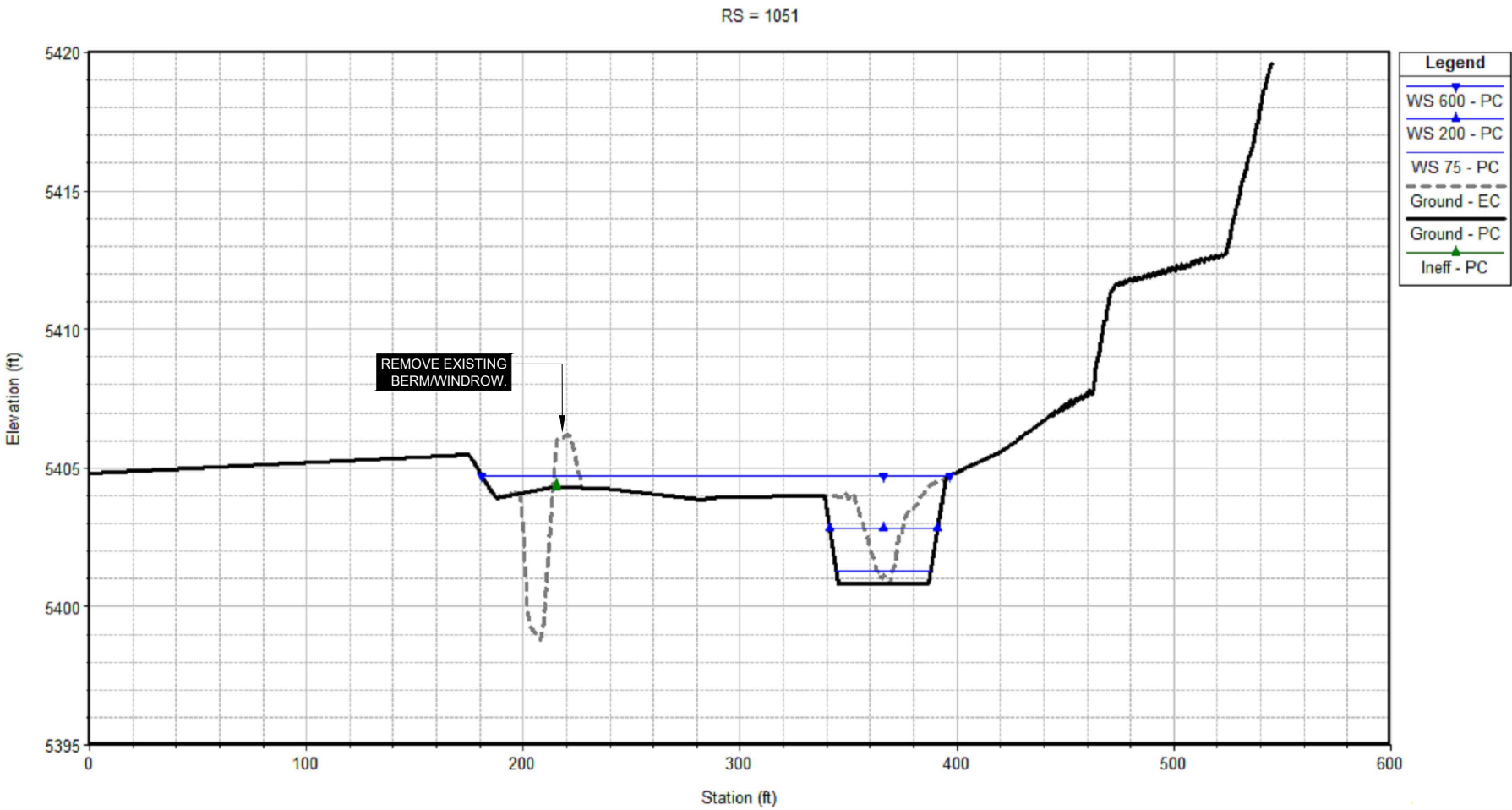
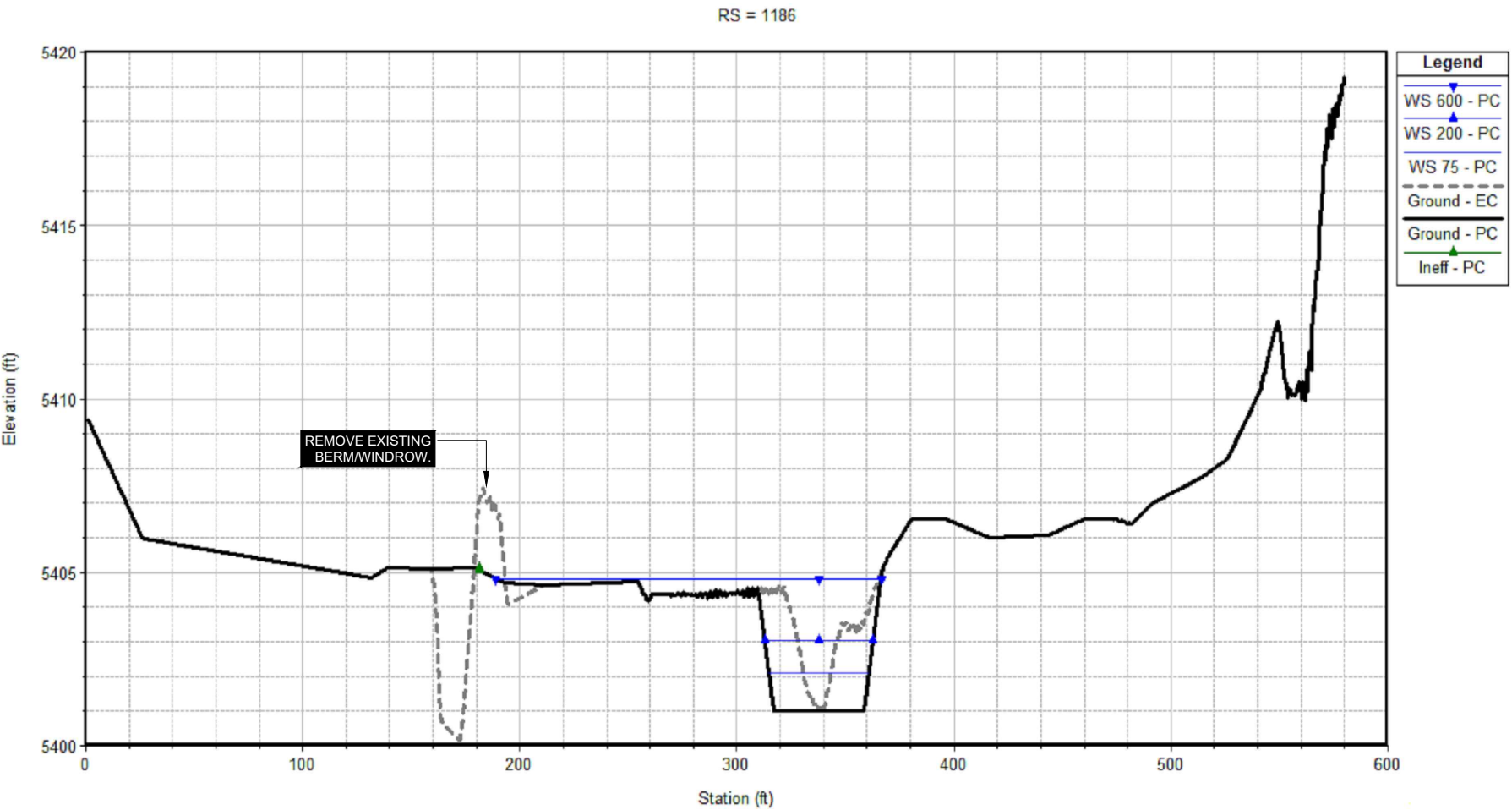
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VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



PROJECT NUMBER: 880.00  
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DATE: 6/10/2022

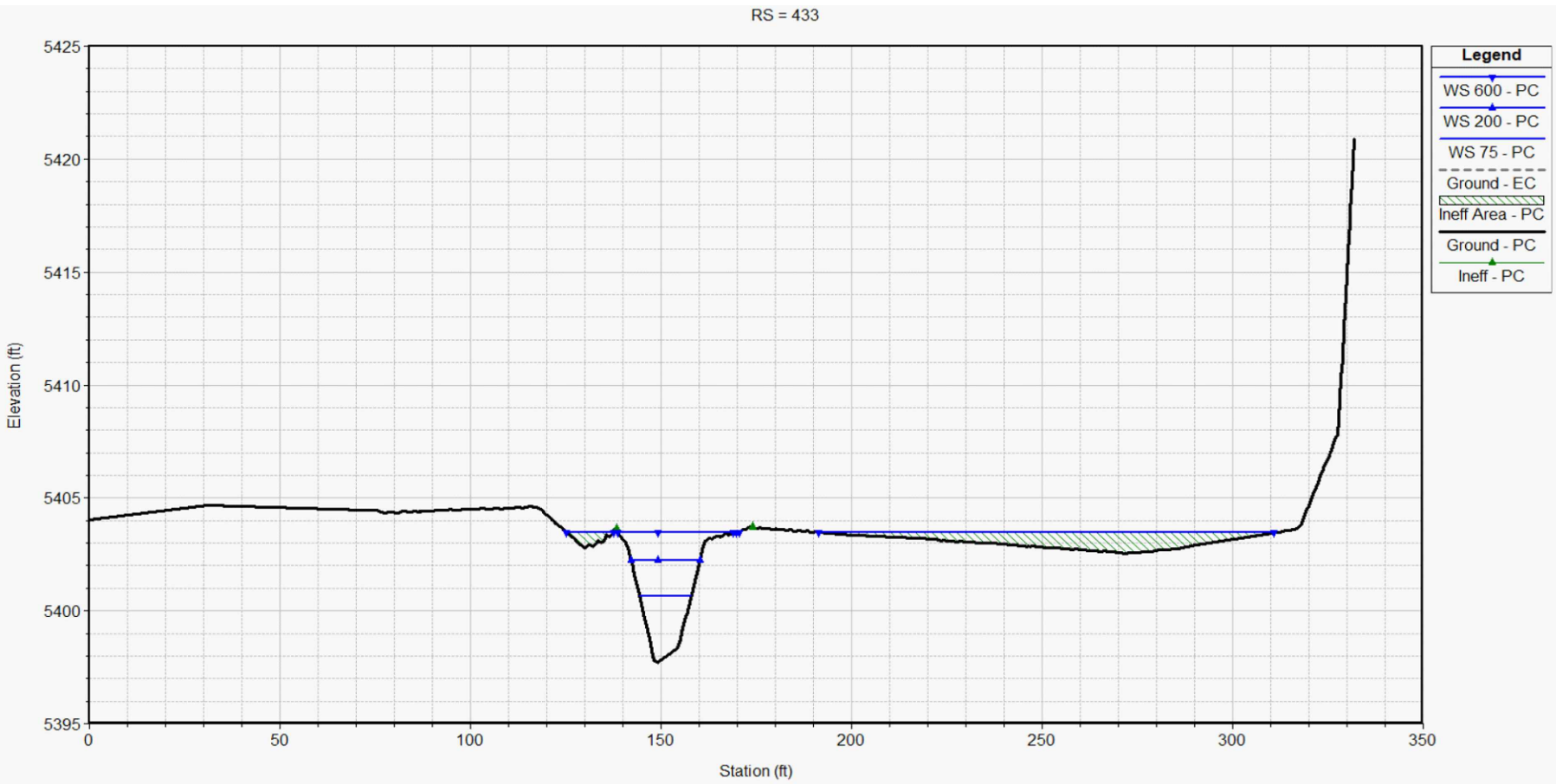
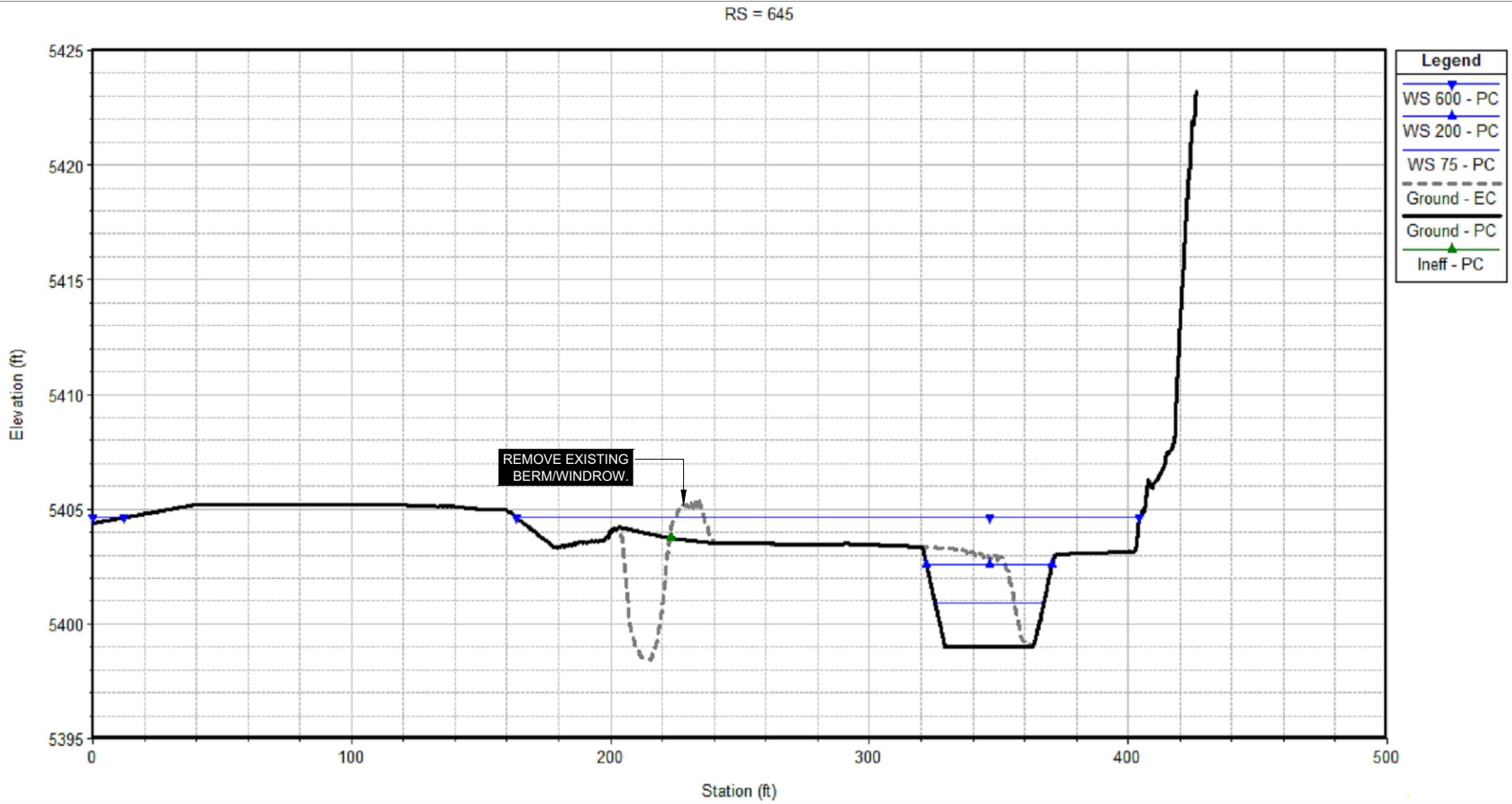
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DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 11+86  
& 10+51

SHEET 22

LAST SAVED: 5/2/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-DRYSCALE-255 C:\STILLWATER SCIENCES\880.00 VERMILLION CREEK - DOCUMENTS\CAO SHEETS\VERMILLION\_CREEK\_SHEET\_22.DWG





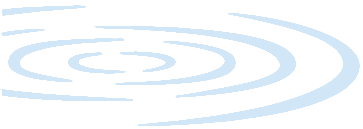
75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



PROJECT NUMBER: 880.00  
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DATE: 6/10/2022

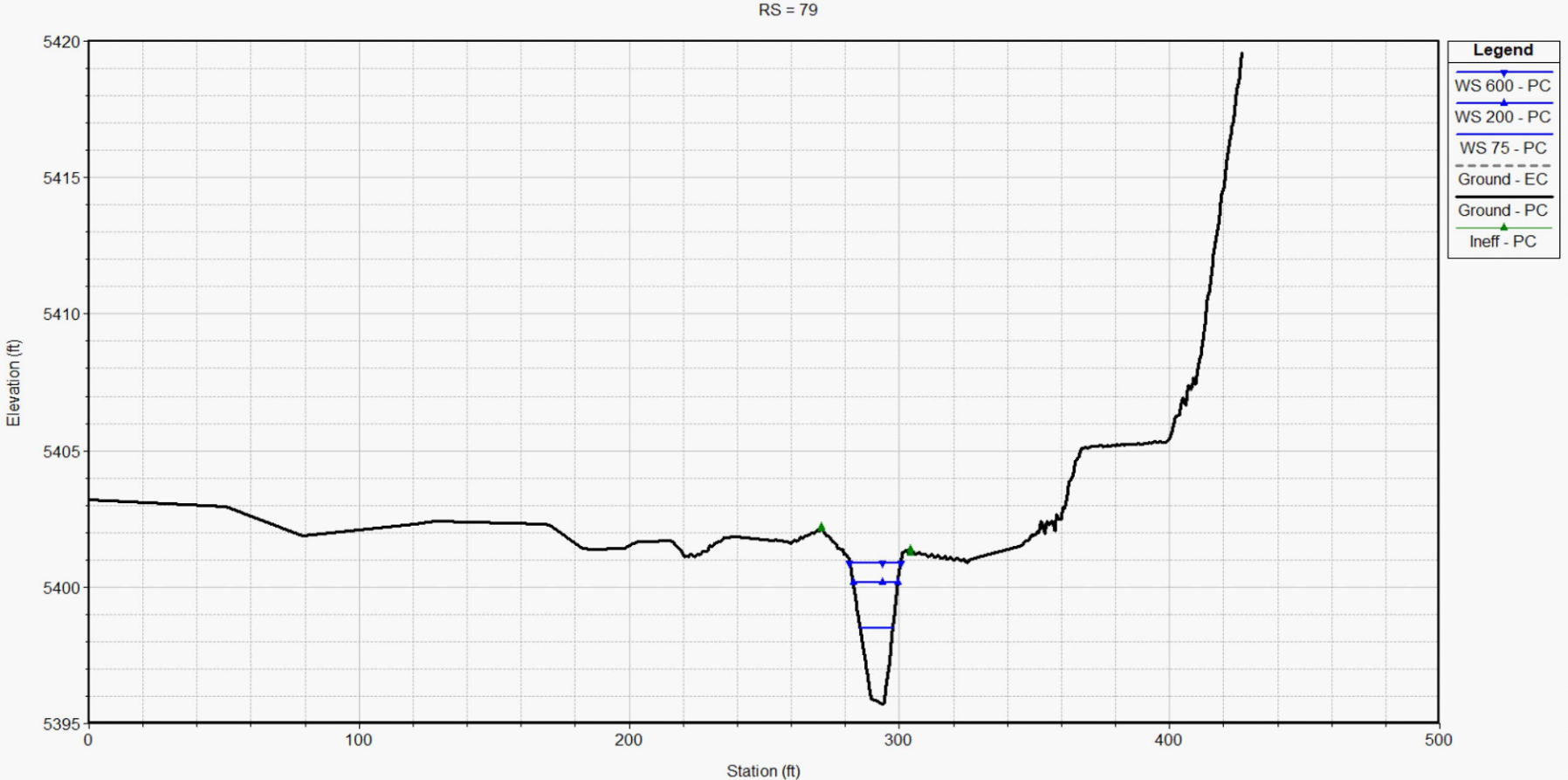
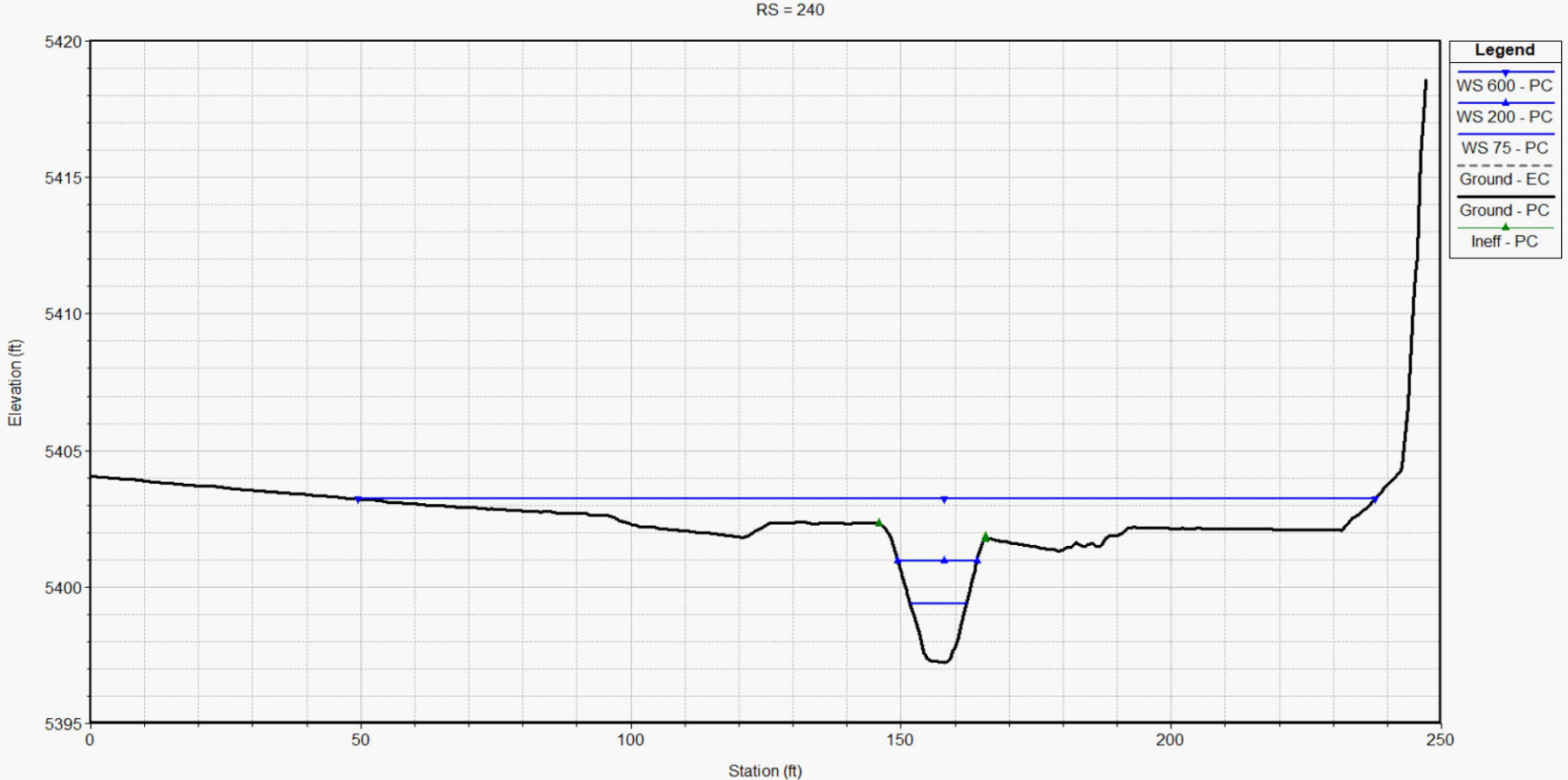
DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 6+45 &  
4+33

SHEET 23

LAST SAVED: 5/27/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-DRYSCALE-25S C:\STILLWATER SCIENCES\880.00 VERMILLION CREEK - DOCUMENTS\CAD SHEETS\NEG. BAS\_CSE\_P72.DWG IF BAK DOES NOT MEASURE, DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY





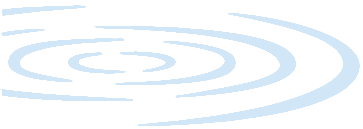
75 CFS - WETLAND CREATION FLOW  
200 CFS - REPRESENTATIVE  
INTERMEDIATE FLOW  
600 CFS - PEAK OBSERVED FLOW

HORIZONTAL AND VERTICAL SCALES  
VARY BY CROSS SECTION. SEE AXES  
INDIVIDUAL AXES FOR SCALE.

VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



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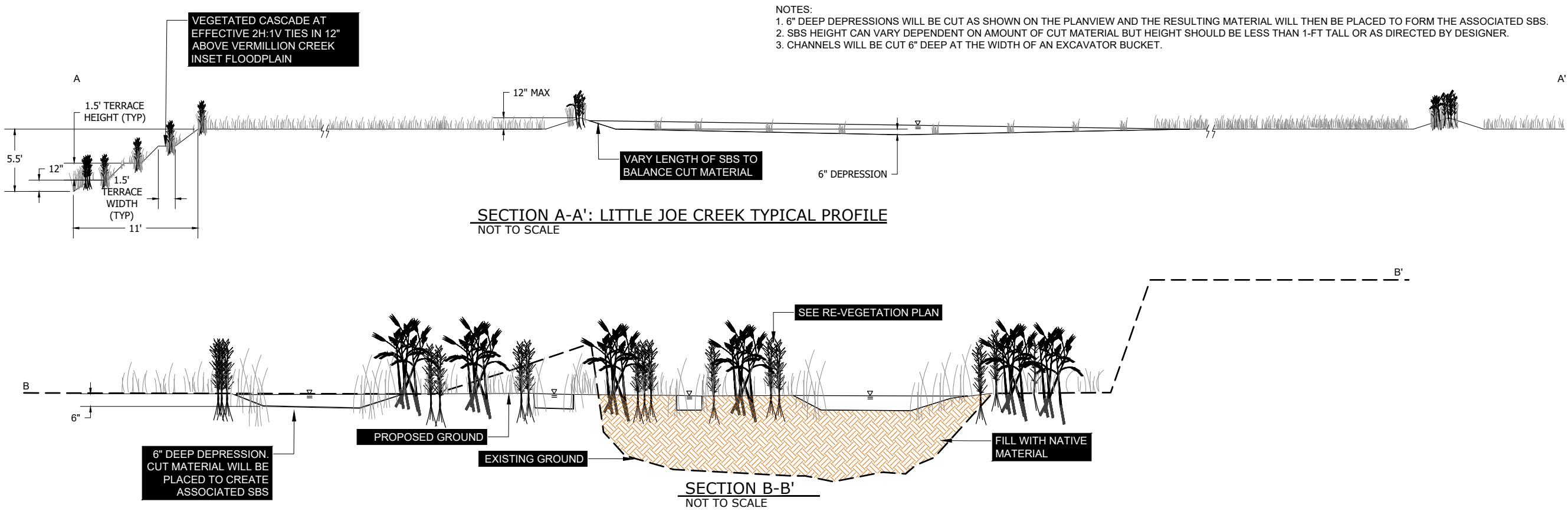
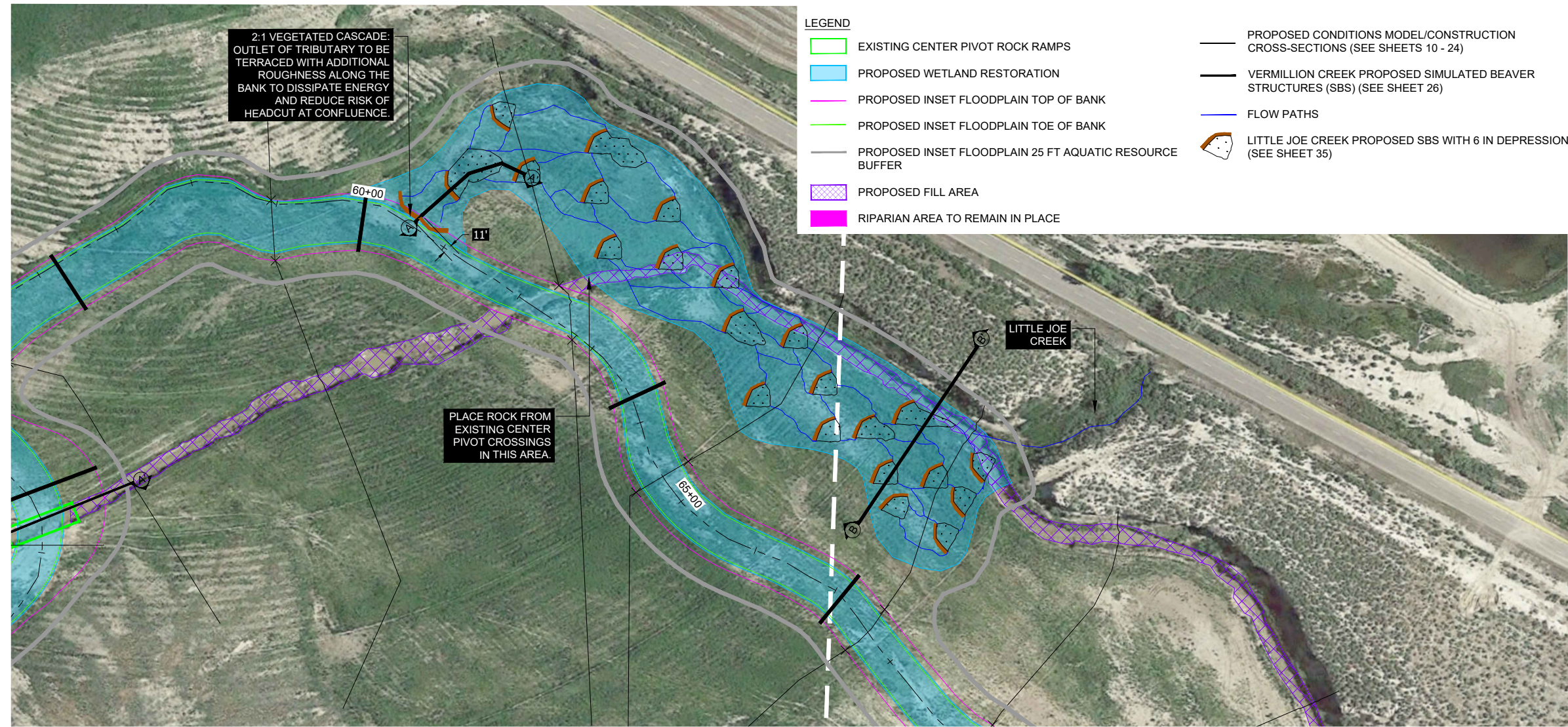
DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

CROSS SECTIONS 2+40 &  
00+79

SHEET 24

LAST SAVED: 5/2/2022 PLOT DATE: 6/17/2022 PLOT STYLE: STILLWATER-GRAYSCALE-255  
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VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences

ecos  
ecosystem services LLC

PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

LITTLE JOE CREEK  
PLAN & TYPICAL CROSS  
SECTION

SHEET 25

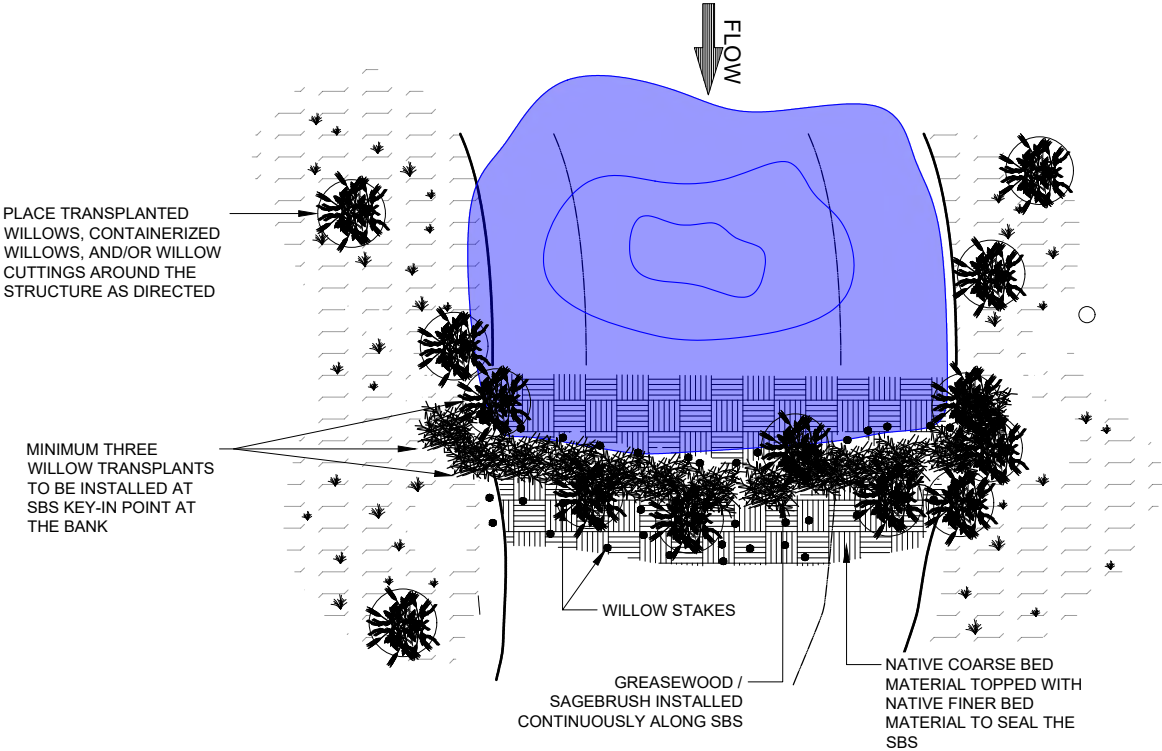
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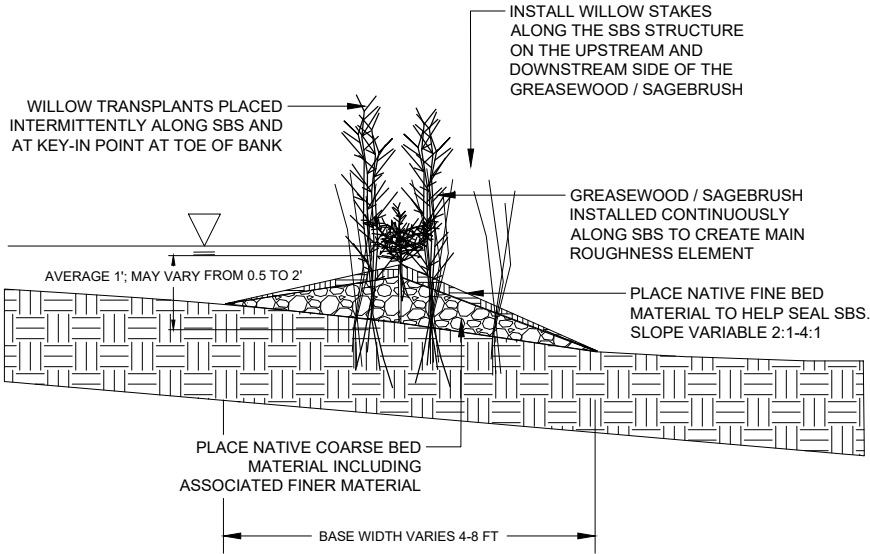
VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



**SIMULATED BEAVER STRUCTURE (SBS) PLAN VIEW (TYP.)**  
NOT TO SCALE



**SIMULATED BEAVER STRUCTURE (SBS) PROFILE VIEW (TYP.)**  
NOT TO SCALE

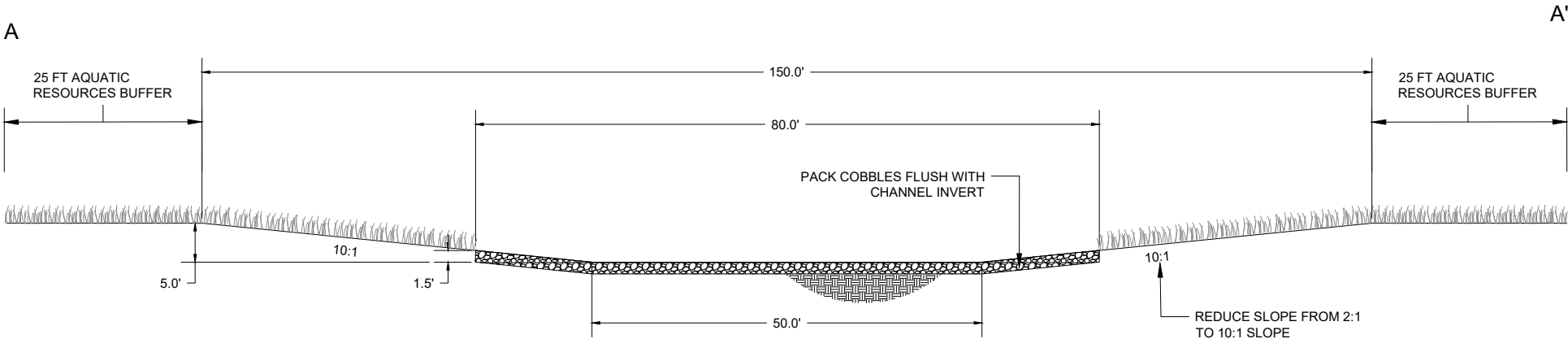
- NOTES:
1. SIMULATED BEAVER STRUCTURES (SBS) TO BE CONSTRUCTED IN THE CHANNEL PER DESIGNER DIRECTION. DESIGNER OR REPRESENTATIVE WILL BE PRESENT DURING INSTALLATION OF SBS.
  2. SBS DETAILS THIS SHEET REFER TO SBS IN VERMILLION CREEK ONLY. REFER TO SHEET 25 FOR PROPOSED STRUCTURES IN LITTLE JOE CREEK.
  3. PILE UP NATIVE COARSE BED MATERIAL AND THEN DIG A SMALL TRENCH TO INSTALL GREASEWOOD / SAGEBRUSH CONTINUOUSLY ALONG THE SBS. PLACE NATIVE COARSE BED MATERIAL ON DOWNSTREAM SIDE OF STRUCTURE TO PREVENT SCOUR.
  4. INSTALL WILLOW TRANSPLANTS AND STAKES AS DIRECTED BY DESIGNER ENSURING A MINIMUM OF THREE WILLOW TRANSPLANT AT ENDS OF SBS ALONG CHANNEL BANK TOE.
  5. PLACE NATIVE FINE BED MATERIAL ON TOP OF NATIVE COARSE BED MATERIAL TO HELP SEAL THE SBS



EXAMPLE PHOTO: EXISTING BEAVER STRUCTURE UPSTREAM OF PROJECT REACH



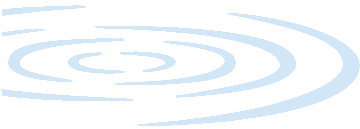
EXAMPLE PHOTO: EXISTING BEAVER STRUCTURE UPSTREAM OF PROJECT REACH



**SECTION A-A': LOW WATER CROSSING**  
NOT TO SCALE SEE SHEET 5



EXAMPLE PHOTO: EXISTING PIVOT CROSSING TO BE REPLACED BY PROPOSED LOW WATER CROSSING. SEE DETAIL FOR PROPOSED LOW WATER CROSSING DIMENSIONS.



PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

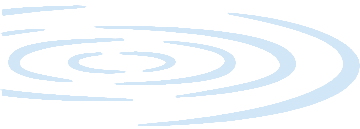
**SBS & LOW WATER  
CROSSING DETAIL**



VERMILLION CREEK AT  
DIAMOND PEAK RANCH  
WETLAND RESTORATION  
PROJECT

MOFFAT COUNTY, COLORADO

Stillwater Sciences



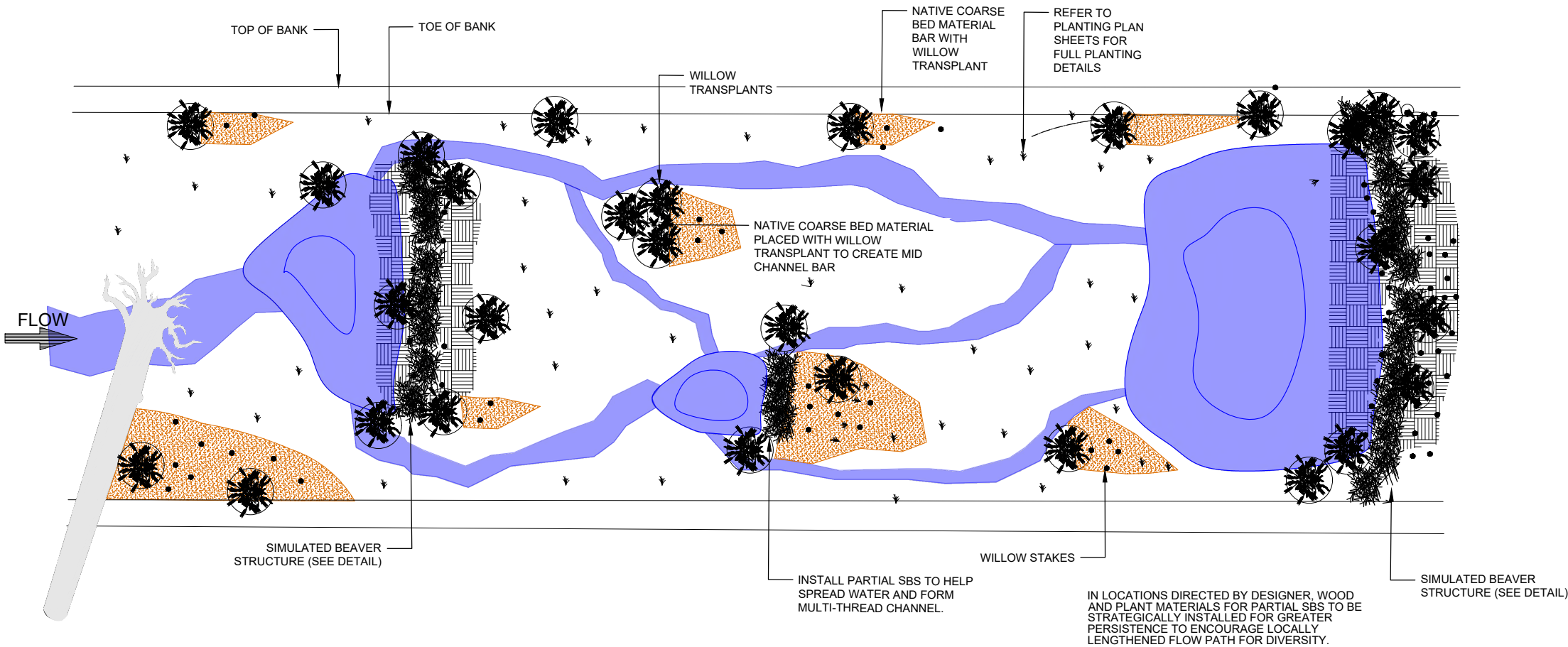
PROJECT NUMBER: 880.00  
SCALE: AS NOTED  
DATE: 6/10/2022

DESIGN: JB/TS/RB  
DRAWN: TS/EP/KE  
CHECKED: TS/RB  
APPROVED:

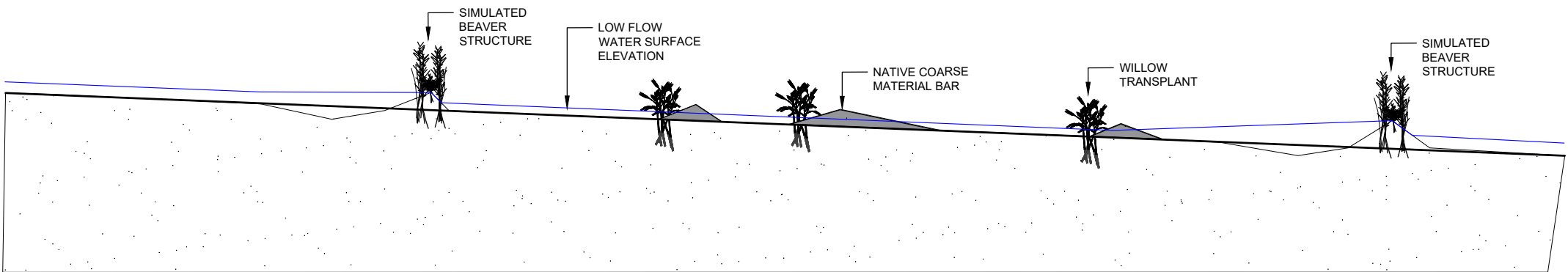
TYPICAL MAIN CHANNEL  
DETAIL

SHEET 27

TYPICAL CHANNEL PLAN VIEW  
NOT TO SCALE



TYPICAL CHANNEL PROFILE VIEW  
NOT TO SCALE



TYPICAL CHANNEL CROSS SECTION DIMENSIONS	
DIMENSION	PROPOSED RANGE OF DIMENSION
BOTTOM WIDTH (FT.)	30 - 42
TOP WIDTH (FT.)	50 - 80
CUT SIDE SLOPE (H:V)	2:1
DEPTH OF CUT (FT.)	3.2 - 7.5

- TYPICAL CHANNEL NOTES:
1. NATIVE COARSE BED MATERIAL WILL BE SALVAGED AND STOCKPILED DURING MASS GRADING OF RESTORED CHANNEL. IT WILL THEN BE PLACED ALONG THE CHANNEL BOTTOM AS DIRECTED BY DESIGNER AFTER MASS GRADING IS COMPLETED.
  2. EXISTING LARGE WOOD WILL BE SALVAGED AND REUSED IN THE CHANNEL AT THE DIRECTION OF THE DESIGNER.
  3. ROUGHNESS ELEMENTS SUCH AS LARGE WOOD, TRANSPLANTS, SBS, AND NATIVE COARSE BED MATERIAL WILL BE INSTALLED INTO FINISHED CHANNEL AT THE DIRECTION OF THE DESIGNER.



EXAMPLE PHOTO 1: EXISTING CHANNEL WITHIN THE PROJECT REACH THAT SHOWS MULTI-THREAD CHANNEL WITH COARSE BARS AND VEGETATION THROUGHOUT CHANNEL BOTTOM



EXAMPLE PHOTO 2: NATIVE COARSE MATERIAL MID-CHANNEL BAR