BAYHA ISLAND ENHANCEMENT RESEARCH PROJECT

SNAKE RIVER, IDAHO

PROPOSAL DRAWINGS

NOT FOR CONSTRUCTION

COLLABORATING PARTNERS

IDAHO POWER. An IDACORP Company

The Changing the course of conservation. Freshwater Trust

COLLABORATING AGENCY

U.S. FISH & WILDLIFE SERVICE

ENGINEER OF RECORD

PROFESSIONAL ENGINEER LICENSED 16428 STATE OF IDAHO SCOTT A. WRIGHT

PROJECT VICINITY MAP

NW 1/4 OF THE NW 1/4 OF SECTION 06, T.01S., R.02W., BOISE MERIDIAN
OWYHEE COUNTY, IDAHO
USGS QUADRANGLE: WILSON PEAK, ID

DRAWING INDEX

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3.9	EROSION CONTROL DETAILS	6.0	SITE RECLAMATION PLAN
4.0	GRADING PLAN		

EXISTING CONDITIONS

THE BAYHA ISLAND ENHANCEMENT RESEARCH PROJECT SITE IS LOCATED AT RIVER MILE 439.5 ON THE THE SNAKE RIVER, APPROXIMATELY 2.5 MILES DOWNSTREAM OF WALTERS FERRY IN OWYHEE COUNTY, IDAHO. THE PROJECT SITE CONSISTS OF BAYHA AND WRIGHT ISLANDS AND THE ADJACENT RIVER CHANNEL. BAYHA AND WRIGHT ISLANDS ARE LOCATED WITHIN THE US FISH AND WILDLIFE SERVICE (FWS) DEER FLAT WILDLIFE REFUGE.

BAYHA ISLAND STRATEGY & ACTIONS

THE BAYHA ISLAND ENHANCEMENT RESEARCH PROJECT STRATEGY FOCUSES ON IMPROVING THE OVERALL TRAJECTORY OF THE SNAKE RIVER IN THE MARSING REACH. IT WAS DETERMINED THAT CHANGES IN THE MAIN STEM CHANNEL DIMENSIONS COULD CREATE DESIRABLE HABITAT FOR TARGET FISH SPECIES AND HELP REDUCE DETRIMENTAL VASCULAR MACROPHYTE AREAS.

THE PROPOSED ACTIONS INCLUDE 1) EXPANDING THE AREA AROUND EACH ISLAND BELOW ORDINARY HIGH WATER (OHW) TO PROMOTE BETTER RIVER FUNCTION, 2) DEEPEN THE EXISTING CHANNEL BETWEEN BAYHA ISLAND AND THE RIVER BANK TO REDUCE MACROPHYTE AREAS, 3) PLACE SORTED AND CLEAN GRAVELS, AND 4) AUGMENT VEGETATION TO PROVIDE GREATER RIPARIAN FUNCTION AND COVER.

SPATIAL REFERENCE

SURVEY CONTROL USED FOR THE PROJECT IS PROVIDED ON DRAWING 2.0 AND COORDINATES CORRESPOND TO THE TOP CENTER OF CONTROL MARKERS.

LIDAR, BATHYMETRIC LIDAR, GNSS GPS, AND SONAR FIELD DATA:
HORIZONTAL PROJECTION: IPC COORDINATE SYSTEM
HORIZ DATUM: NAD83 UNITS: US SURVEY FEET
VERT DATUM: NAVD88 (GEOID09) UNITS: US SURVEY FEET

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COVER PAGE AND NOTES

BAYHA ISLAND ENHANCEMENT RESEARCH PROJECT
SNAKE RIVER NEAR WALTERS FERRY, IDAHO

NO.	DATE	BY	DESCRIPTION	CHK
-	11/10/15	RB	PROPOSALS	SW

PROJECT NUMBER RDG-14-010

DRAWING NUMBER 1.0

Drawing 1 of 27

Nov 20, 2015 - 5:24pm M:\client-data\2014\rdg-14-010 ipc snake aire 3\CAD\3D_Bayha Island (10_20_30 series).dwg

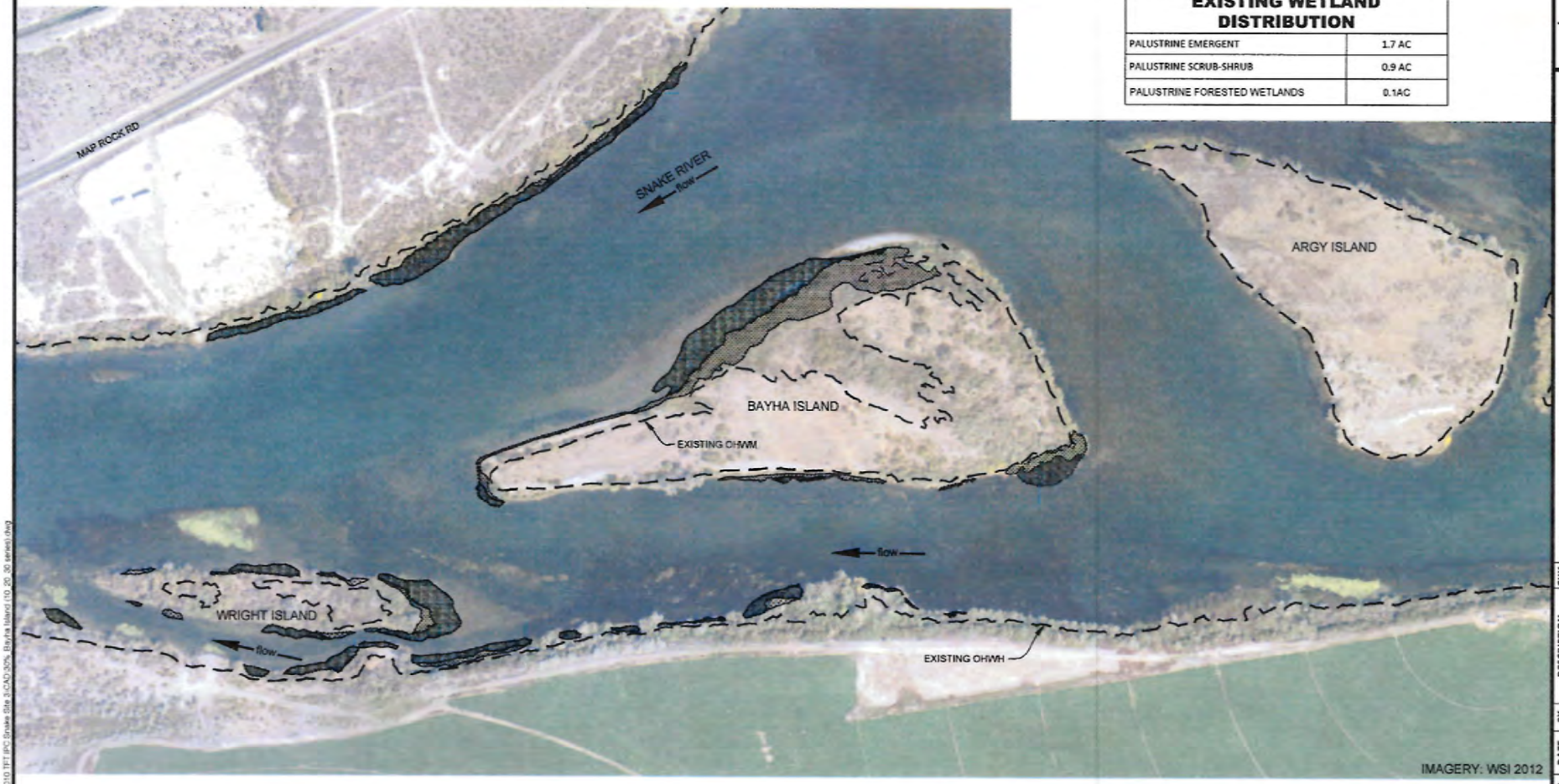
LEGEND

- PALUSTRINE EMERGENT
- PALUSTRINE SCRUB-SHRUB
- PALUSTRIINE FORESTED

GENERAL NOTES

EXISTING WETLAND CONDITIONS DELINEATED BY RDG IN JULY 2014. FIELD WORK WAS PERFORMED JUNE 3-4, 2014 BY RDG AND TFT, IN ACCORDANCE WITH THE *ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL* (1987) AND THE *REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: ARID WEST REGION (VERSION 2.0)* (2010).

EXISTING WETLAND DISTRIBUTION	
PALUSTRINE EMERGENT	1.7 AC
PALUSTRINE SCRUB-SHRUB	0.9 AC
PALUSTRINE FORESTED WETLANDS	0.1AC



1 **EXISTING WETLAND RESOURCES**
1" = 200'

PROPOSAL DRAWINGS
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EXISTING WETLAND RESOURCES ON BAYHA AND WRIGHT ISLANDS

BAYHA ISLAND ENHANCEMENT RESEARCH PROJECT
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PROJECT NUMBER
RDG-14-010

DRAWING NUMBER
2.2

Drawing 4 of 28

M:\Client Data\2014\RDG-14-010 TFT BPC Snake Site 3\CAD\30% Bayha Island (10_20_30 series).dwg

LEGEND

IMPACTED WETLAND

EXISTING WETLANDS TO BE FILLED

PALUSTRINE EMERGENT	0.74 AC
PALUSTRINE SCRUB-SHRUB	0.58 AC
PALUSTRINE FORESTED WETLANDS	0.03 AC

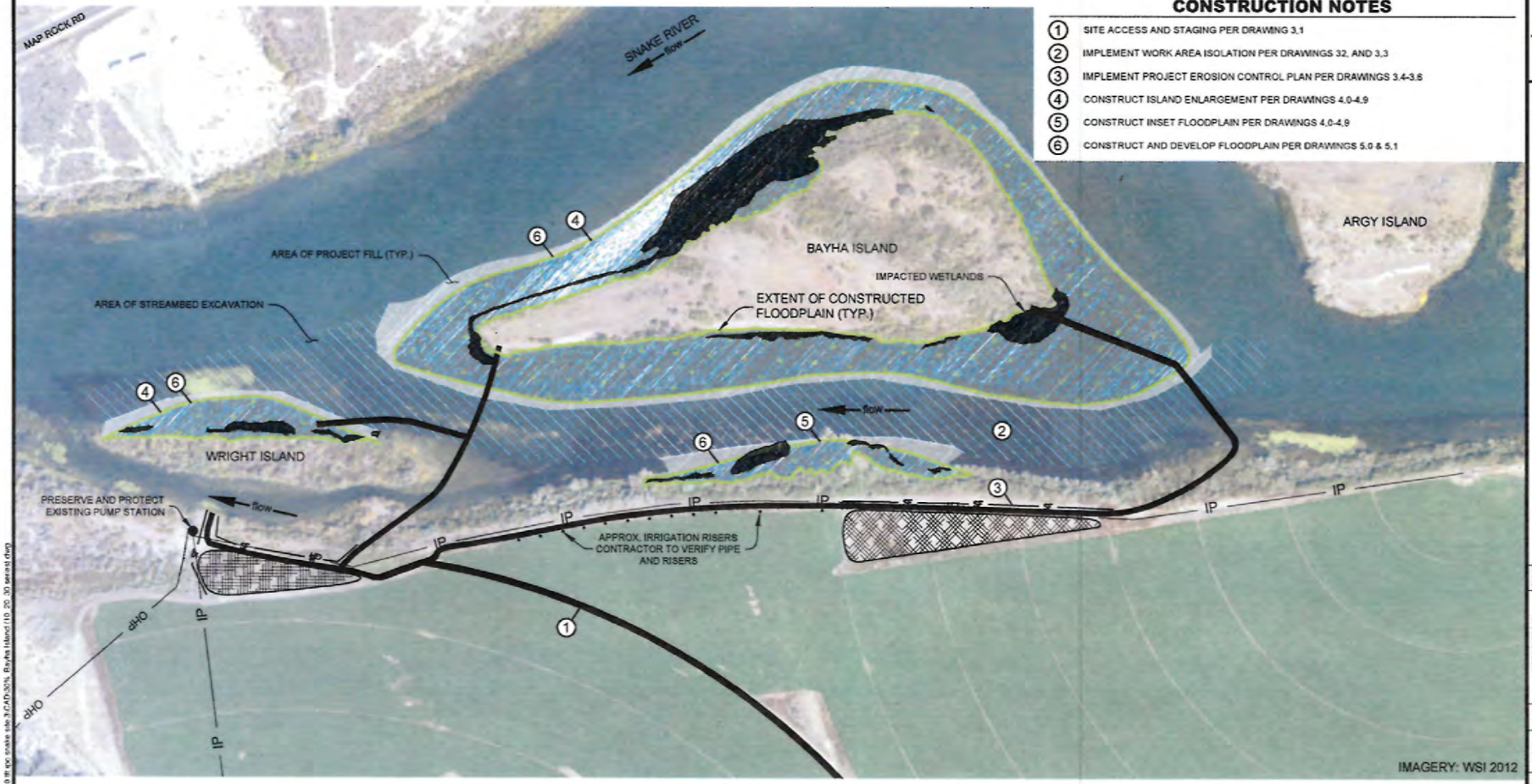
GENERAL NOTES

CONTRACTOR TO MAINTAIN WATER FLOW TO PUMP STATION DURING CONSTRUCTION FOR THE DURATION OF IRRIGATION PERIOD.

CONTRACTOR TO COORDINATE CONSTRUCTION ACTIVITIES WITH LANDOWNER TO MINIMIZE DISRUPTION TO FARMING OPERATIONS.

CONSTRUCTION NOTES

1. SITE ACCESS AND STAGING PER DRAWING 3.1
2. IMPLEMENT WORK AREA ISOLATION PER DRAWINGS 32, AND 3.3
3. IMPLEMENT PROJECT EROSION CONTROL PLAN PER DRAWINGS 3.4-3.6
4. CONSTRUCT ISLAND ENLARGEMENT PER DRAWINGS 4.0-4.9
5. CONSTRUCT INSET FLOODPLAIN PER DRAWINGS 4.0-4.9
6. CONSTRUCT AND DEVELOP FLOODPLAIN PER DRAWINGS 5.0 & 5.1



1 PROPOSED PLAN VIEW

1" = 200'

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BAYHA ISLAND ENHANCEMENT PLAN

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DRAWING NUMBER 3.0

Drawing 5 of 28

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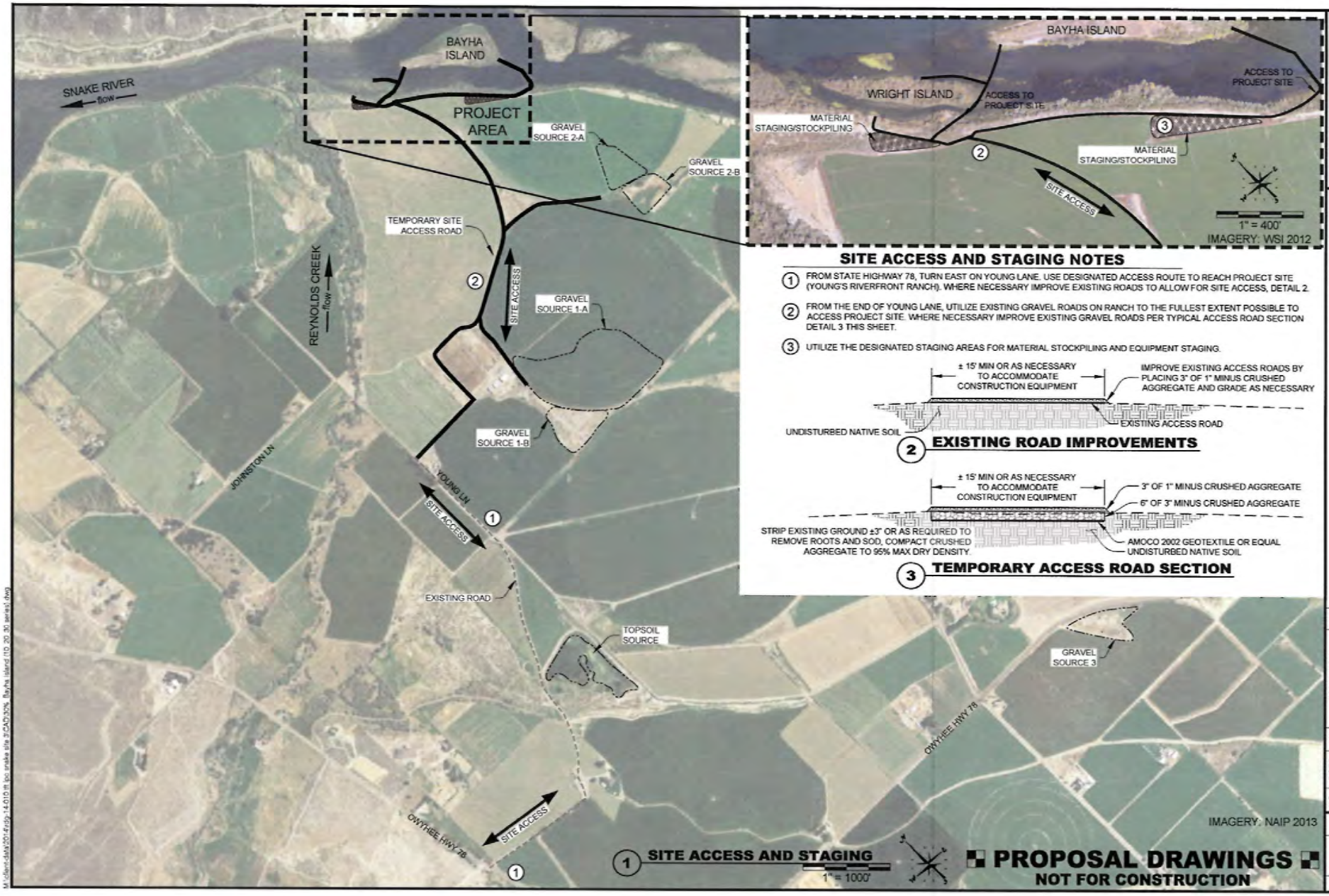

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SITE ACCESS & STAGING

BAYHA ISLAND ENHANCEMENT RESEARCH PROJECT
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DRAWING NUMBER
3.1

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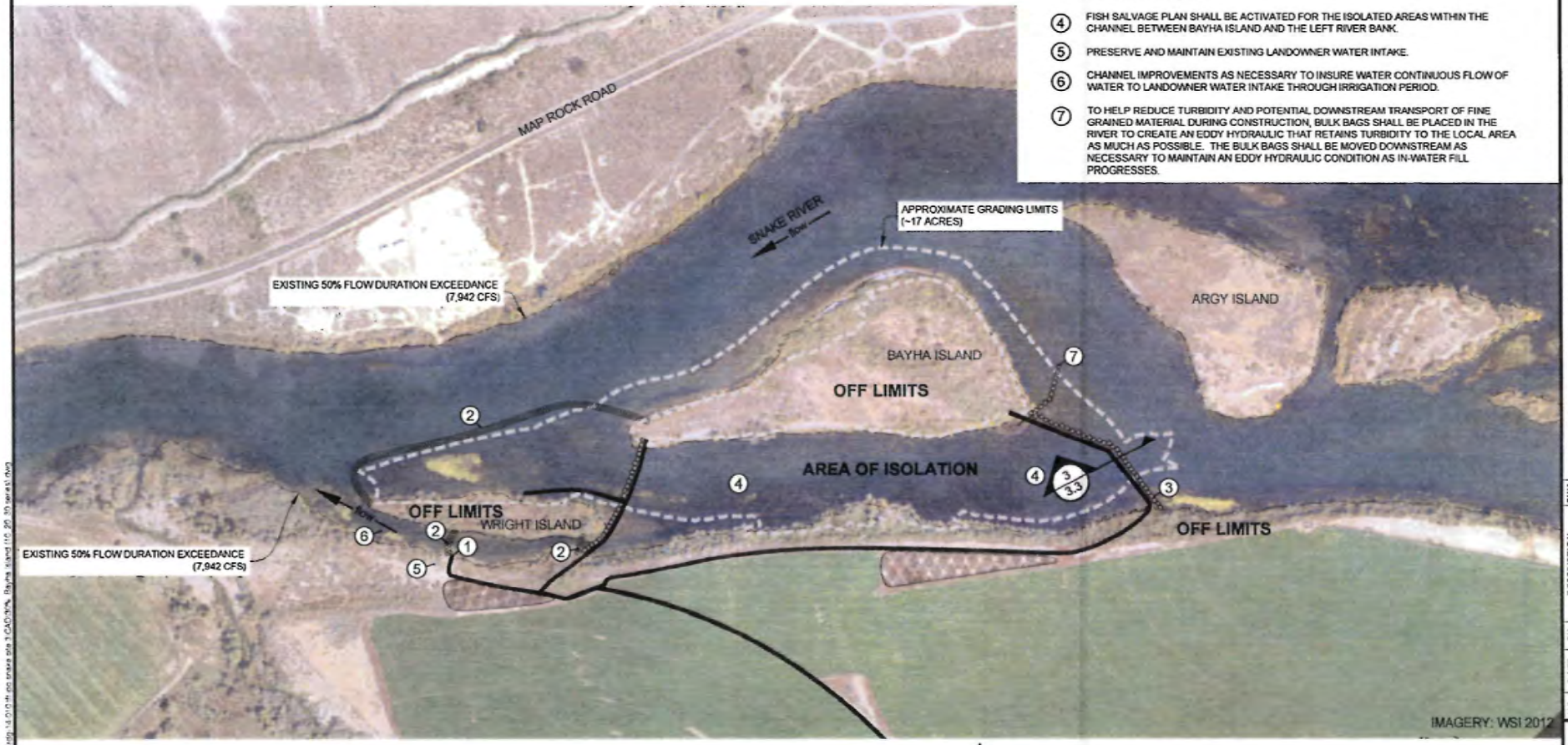
GENERAL NOTES

CONTRACTOR TO FOLLOW ALL PERMIT BEST MANAGEMENT PRACTICES (BMPs) WHILE IMPLEMENTING WORK AREA ISOLATION MEASURES.

WORK AREA ISOLATION - CONSTRUCTION NOTES

1. IMPROVE TEMPORARY ACCESS ROAD TO CHANNEL PER DRAWING 3.1.
2. INSTALL FLOATING SILT CURTAINS PER DRAWING 3.3 AT DOWNSTREAM EXTENTS AND ADJACENT TO WORK TO TRAP SILT AND SEDIMENT WITHIN THE DISTURBED WORK ZONE.
3. INSTALL BULK BAGS, SAND BAGS, OR APPROVED ALTERNATIVE COFFER DAM PER DRAWING 3.3 TO ISOLATE ACTIVE FLOW FROM WORK AREA. TOP OF COFFER DAM TO BE AT MIN 2244' ELEVATION.
4. FISH SALVAGE PLAN SHALL BE ACTIVATED FOR THE ISOLATED AREAS WITHIN THE CHANNEL BETWEEN BAYHA ISLAND AND THE LEFT RIVER BANK.
5. PRESERVE AND MAINTAIN EXISTING LANDOWNER WATER INTAKE.
6. CHANNEL IMPROVEMENTS AS NECESSARY TO INSURE WATER CONTINUOUS FLOW OF WATER TO LANDOWNER WATER INTAKE THROUGH IRRIGATION PERIOD.
7. TO HELP REDUCE TURBIDITY AND POTENTIAL DOWNSTREAM TRANSPORT OF FINE GRAINED MATERIAL DURING CONSTRUCTION, BULK BAGS SHALL BE PLACED IN THE RIVER TO CREATE AN EDDY HYDRAULIC THAT RETAINS TURBIDITY TO THE LOCAL AREA AS MUCH AS POSSIBLE. THE BULK BAGS SHALL BE MOVED DOWNSTREAM AS NECESSARY TO MAINTAIN AN EDDY HYDRAULIC CONDITION AS IN-WATER FILL PROGRESSES.



1 WORK AREA LAYOUT
1" = 300'

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WORK AREA ISOLATION

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DRAWING NUMBER 3.2

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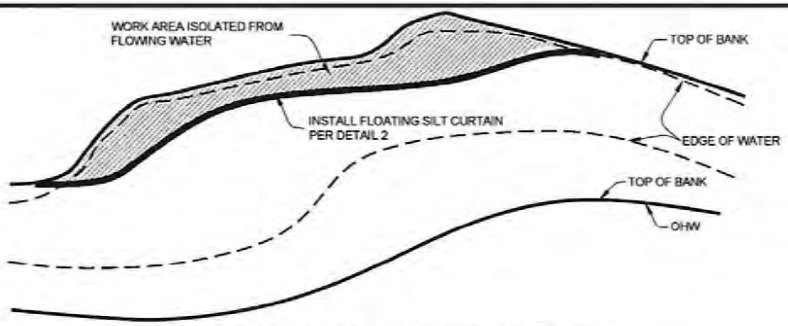
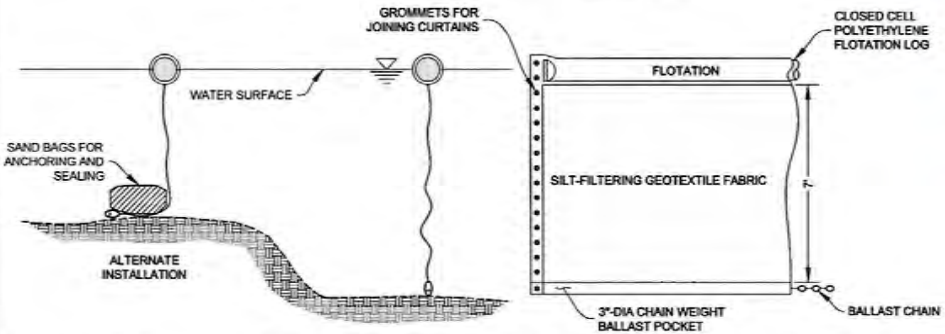


1 WORK AREA ISOLATION - TYPICAL

NOT TO SCALE



FLOATING SILT CURTAIN SHALL BE A "LAYFIELD FSC 13" OR APPROVED EQUAL. THE BODY OF THE FLOATING SILT CURTAIN IS MADE FROM A STRONG, HIGH-FILTRATION FABRIC THAT RETAINS FINE SILTS AND SEDIMENTS ON-SITE. THE FLOAT AND BOTTOM SLEEVE ARE CONSTRUCTED FROM A UV-STABLE, HIGH-STRENGTH POLYETHYLENE (I.E. RIPSTOP-TYPE MATERIAL). THE FLOATING SILT CURTAIN IS INCREASED IN LENGTH BY JOINING MALE AND FEMALE ENDS OF ADDITIONAL SECTIONS (HARDWARE INCLUDED WITH CURTAIN FROM MANUFACTURE) OF CURTAIN, WHICH TYPICALLY COME IN 50' LENGTHS.

2 FLOATING SILT CURTAIN

EXAMPLE OF FLOATING SILT CURTAIN PLACEMENT

BULK BAGS OR APPROVED ALTERNATIVE

WORK AREA TO BE ISOLATED USING BULK BAGS, SAND BAGS, OR APPROVED ALTERNATIVE. BULK BAGS ARE ALSO CALLED FLEXIBLE INTERMEDIATE BULK CONTAINERS (FIBC) THAT CAN BE CUSTOM MADE FROM VARIOUS FABRIC. THE FOLLOWING REQUIREMENTS ARE NECESSARY FOR THE RIVER ENVIRONMENT.

LARGE BULK BAGS SHALL BE CONSTRUCTED OF 8 oz WOVEN FABRIC, 1200 HOUR UV RESISTANT WITH SEWN LIFTING LOOPS. WHEN FILLED WITH NATIVE RIVER SAND AND GRAVEL, THE BAGS ARE APPROXIMATELY 6' WIDE x 6' LONG x 4' HIGH.

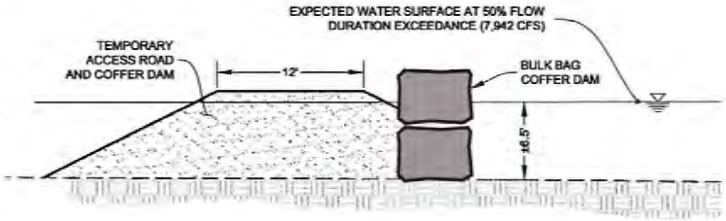
SMALL BULK BAGS SHALL BE CONSTRUCTED OF 8 oz WOVEN FABRIC, 1200 HOUR UV RESISTANT WITH SEWN LIFTING LOOPS. WHEN FILLED WITH NATIVE RIVER SAND AND GRAVEL, THE BAGS ARE APPROXIMATELY 3' WIDE x 3' LONG x 2.5' HIGH.

BULK BAGS SHALL BE CAREFULLY PLACED TO ENSURE NO TEARING OR CUTTING OF THE BAGS OCCURS.

BULK BAGS SHALL BE PLACED USING A HYDRAULIC CRANE OR TRACKHOE USING LIFTING BARS AND STEEL CABLES TO EQUALIZE LOAD ON LIFTING LOOPS.

EXAMPLE OF BULK BAGS

EXAMPLE OF BULK BAG PLACEMENT



3 TYP. BULK BAG PLACEMENT

HORIZ 1" = 10'
VERT 1" = 10'

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WORK AREA ISOLATION DETAILS

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DRAWING NUMBER 3.3

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M:\client-data\2014\rdg-14-010 ttl pc snake site 3\CAD\30% Bayha Island (10_20_30 series).dwg