

INTRODUCTION

This *Upper John Day Atlas* provides a compendium of GIS-based maps produced from data compiled and collected for the *John Day River Tributary Assessments, Grant County, Oregon* (Reclamation, 2008). The assessment area covers approximately 3 miles of the Upper John Day River from Prairie City to Jeff Davis Creek. The assessment area was divided into 2 panels for the generation of this *Atlas* as follows:

- Upper John Day Panel 1: Reaches UJD1 and UJD2 (downstream); River Miles 262.67 to 264.10
- Upper John Day Panel 2: Reach UJD2(upstream) and UJD3; River Miles 264.10 to 265.81

Within the *Atlas*, GIS data were organized to illustrate mapping efforts for the following categories:

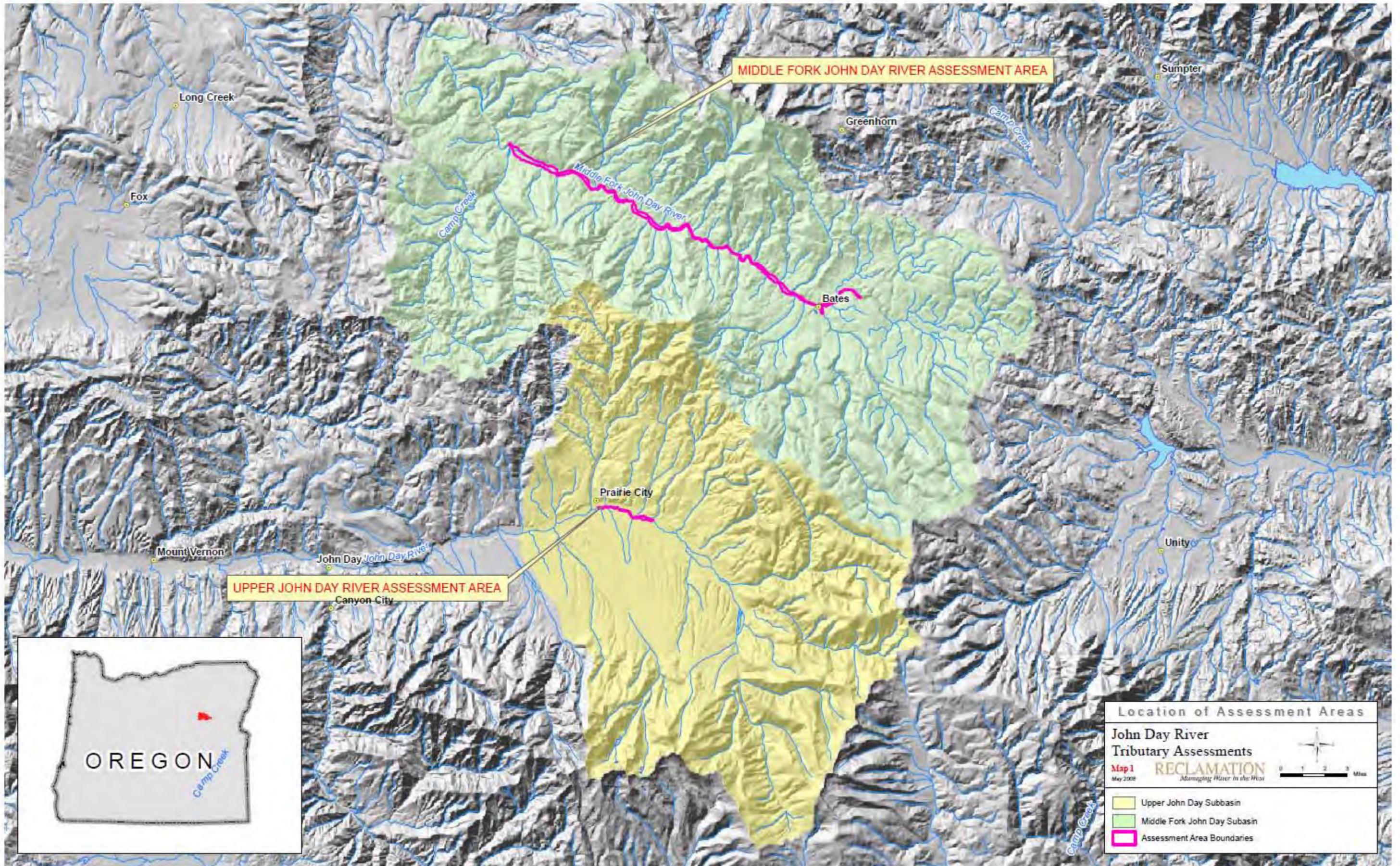
- Geology
- Human Features
- Vegetation
- Historic Channel Locations
- Potential Project Areas on the Forrest Conservation Properties

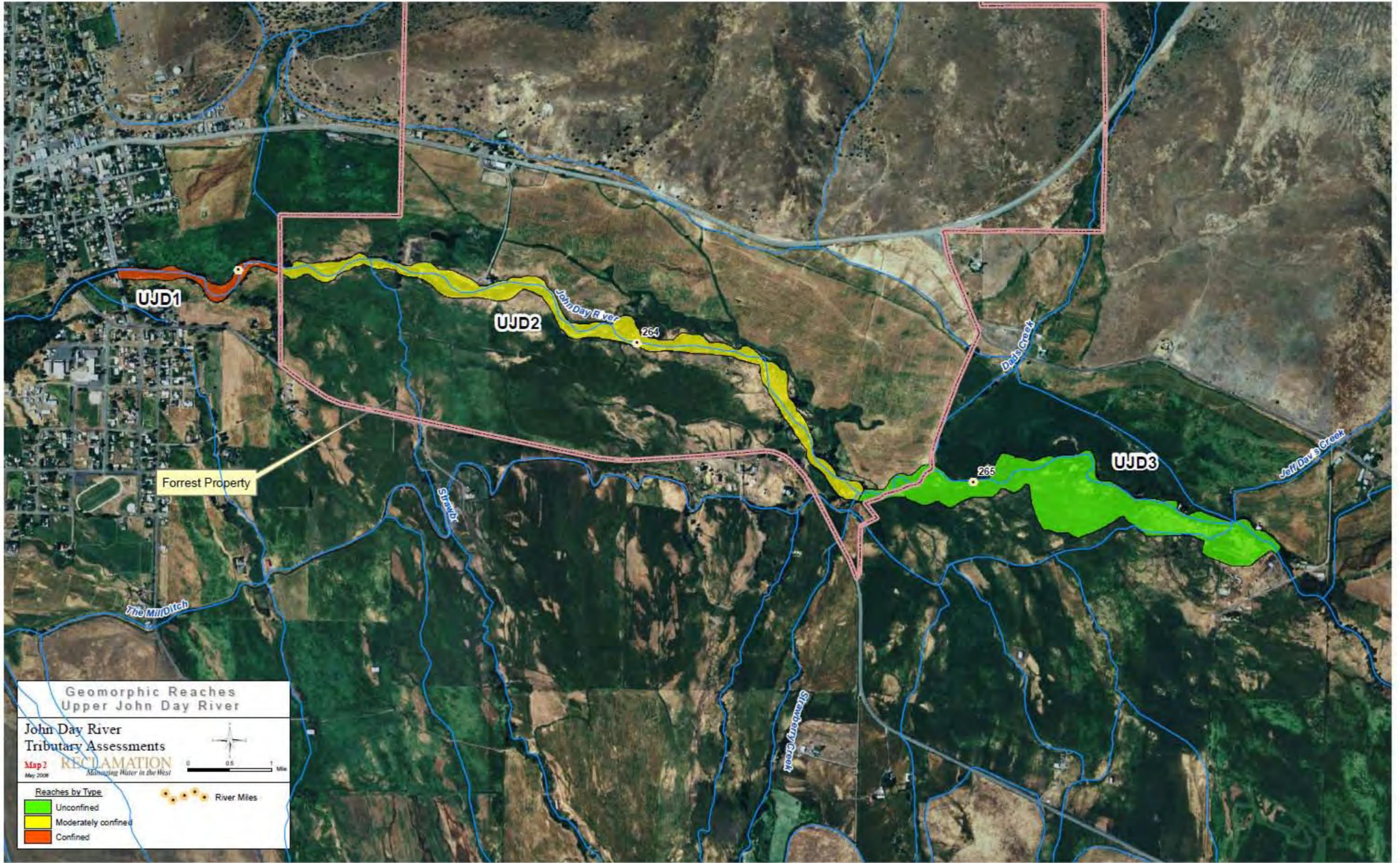
This *Atlas* also includes several general maps that cover the entire assessment area (maps 1-3).

Metadata for GIS-based mapping are provided in the related GIS files, which are included on the DVD that accompanies the *Tributary Assessments* report. The *Upper John Day Atlas* was generated by Kurt Wille in the Sedimentation and River Hydraulics Group at the Technical Service Center of the Bureau of Reclamation.

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02	Geomorphic Reaches
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**Geomorphic Reaches
Upper John Day River**

**John Day River
Tributary Assessments**

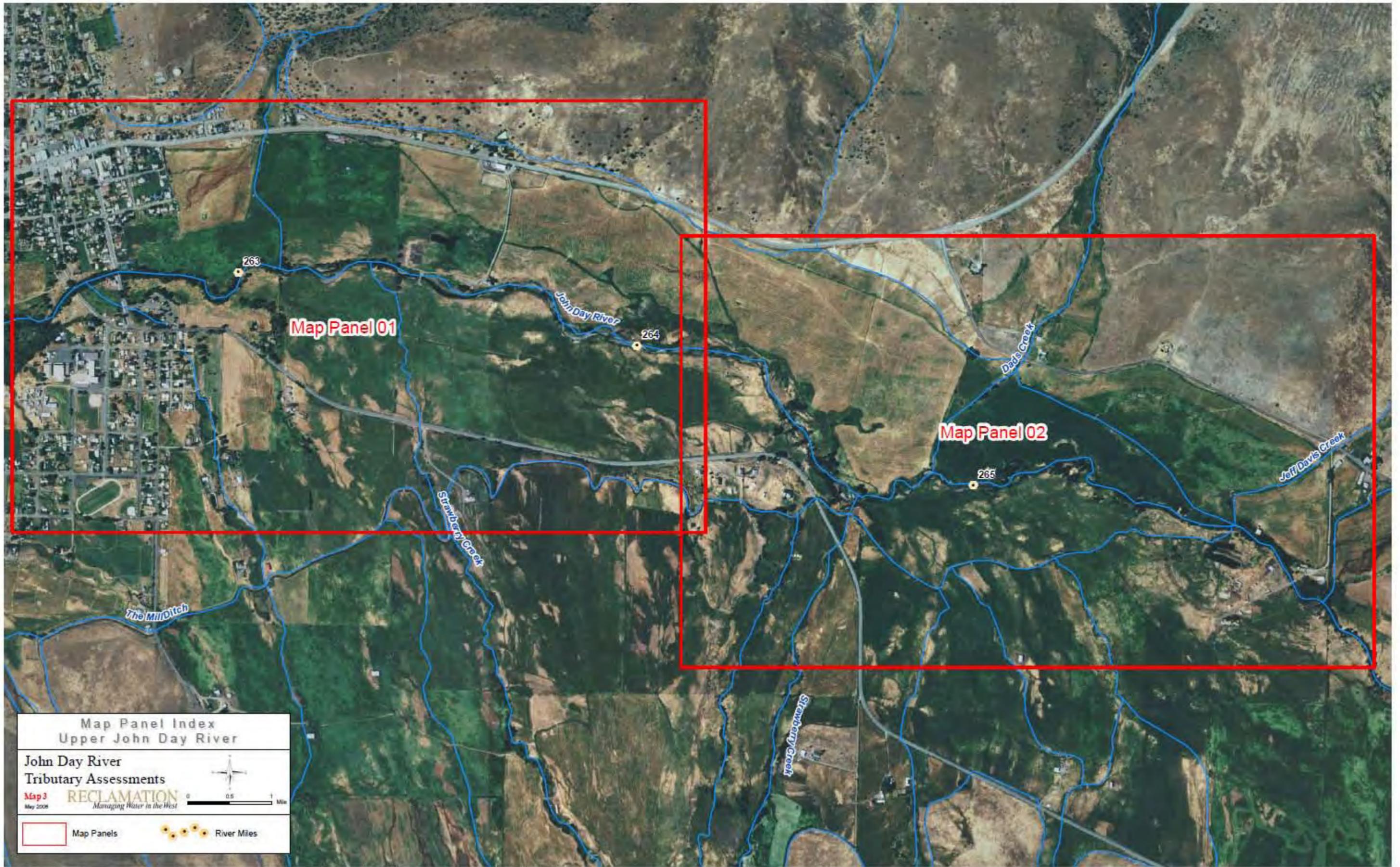
Map 2 **RECLAMATION**
May 2008 *Managing Water in the West*

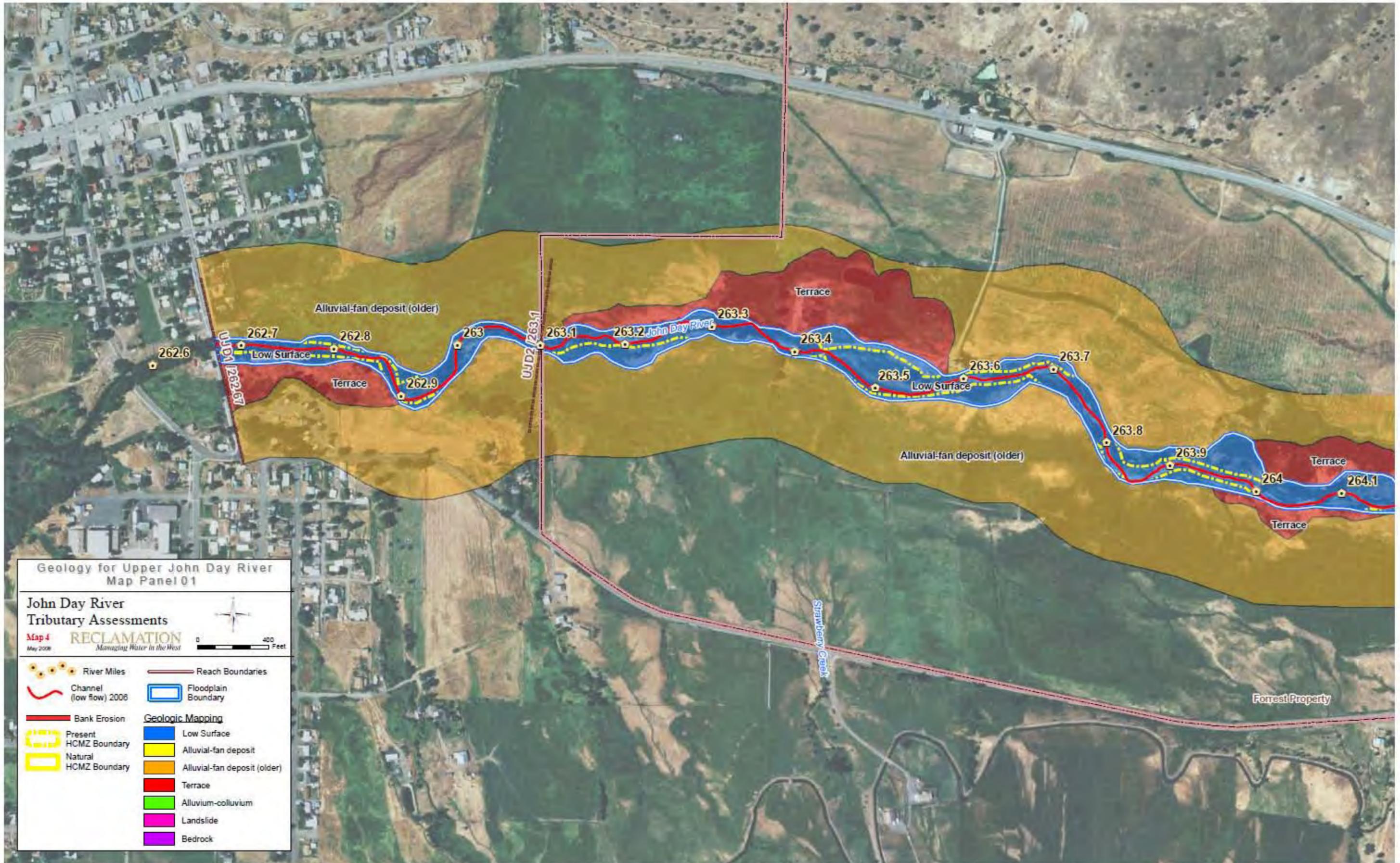
Reaches by Type

- Unconfined
- Moderately confined
- Confined

River Miles

0 0.5 1 Mile





Geology for Upper John Day River
Map Panel 01

John Day River
Tributary Assessments

Map 4 RECLAMATION
May 2008 Managing Water in the West

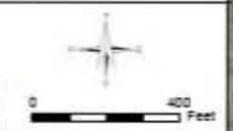


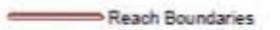
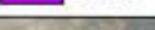
- | | |
|-------------------------|------------------------------|
| River Miles | Reach Boundaries |
| Channel (low flow) 2008 | Floodplain Boundary |
| Bank Erosion | Geologic Mapping |
| Present HCMZ Boundary | Low Surface |
| Natural HCMZ Boundary | Alluvial-fan deposit |
| | Alluvial-fan deposit (older) |
| | Terrace |
| | Alluvium-colluvium |
| | Landslide |
| | Bedrock |

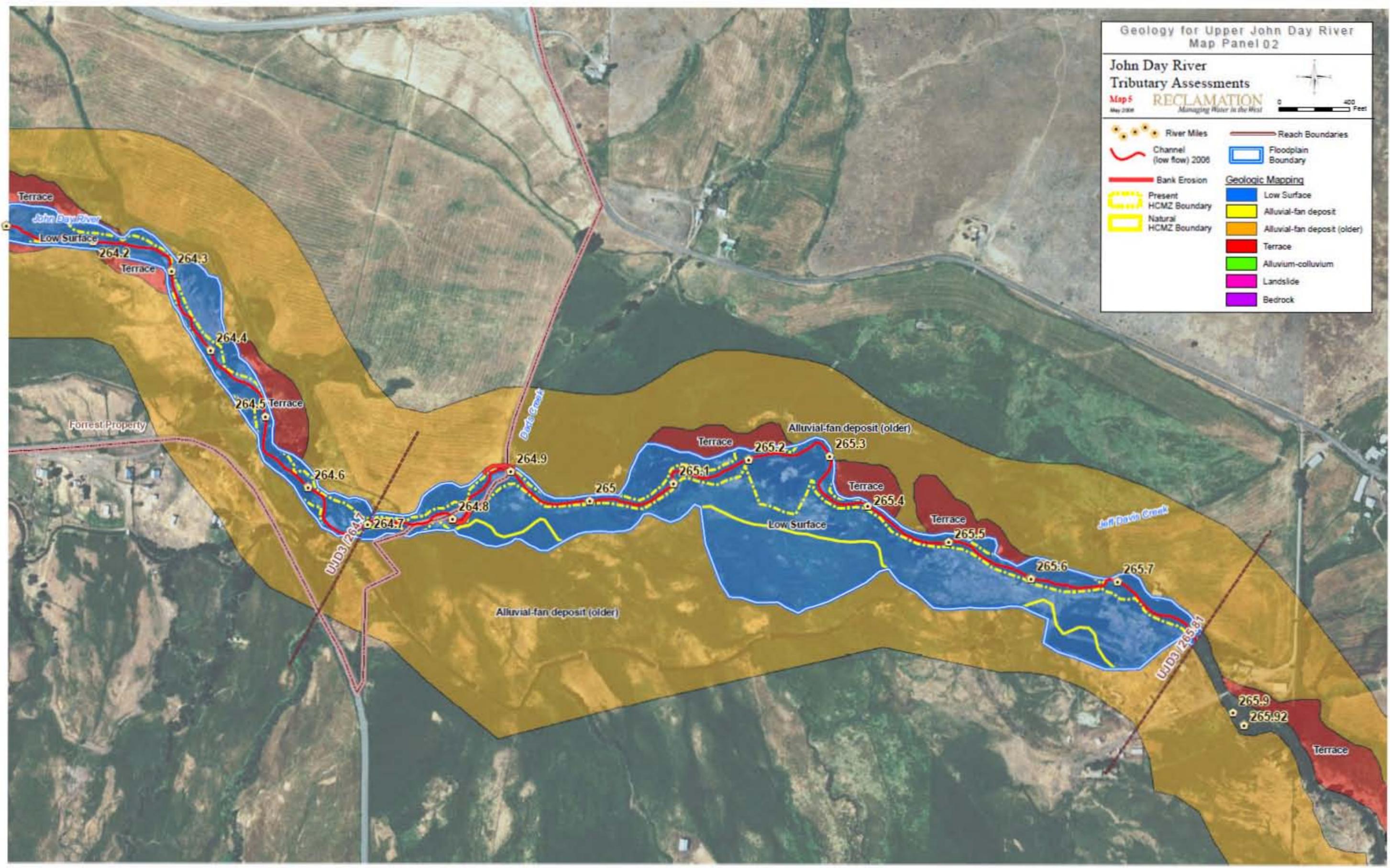
Forrest Property

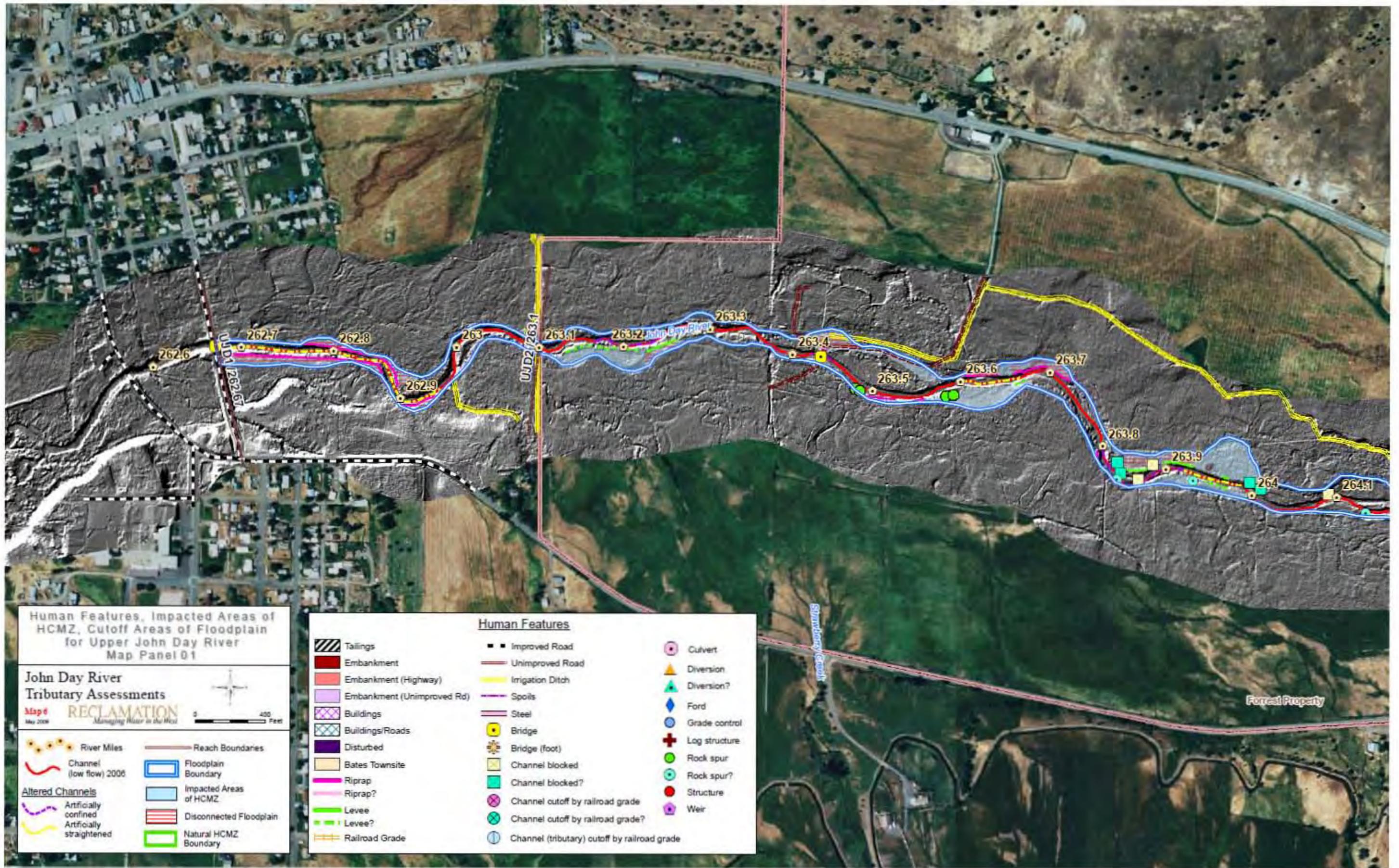
Geology for Upper John Day River
Map Panel 02

**John Day River
Tributary Assessments**
Map 5 RECLAMATION
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 River Miles	 Reach Boundaries
 Channel (low flow) 2006	 Floodplain Boundary
 Bank Erosion	Geologic Mapping
 Present HCMZ Boundary	 Low Surface
 Natural HCMZ Boundary	 Alluvial-fan deposit
	 Alluvial-fan deposit (older)
	 Terrace
	 Alluvium-colluvium
	 Landslide
	 Bedrock





Human Features, Impacted Areas of HCMZ, Cutoff Areas of Floodplain for Upper John Day River
Map Panel 01

John Day River Tributary Assessments
 Map 6 RECLAMATION
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0 400 Feet

River Miles: 262.6, 262.7, 262.8, 262.9, 263, 263.1, 263.2, 263.3, 263.4, 263.5, 263.6, 263.7, 263.8, 263.9, 264, 264.1

UJD1/262.67 UJD2/263.4

Channel (low flow) 2006

Altered Channels:
 Artificially confined
 Artificially straightened

Reach Boundaries

Floodplain Boundary

Impacted Areas of HCMZ

Disconnected Floodplain

Natural HCMZ Boundary

Human Features

Tailings	Improved Road	Culvert
Embankment	Unimproved Road	Diversion
Embankment (Highway)	Irrigation Ditch	Diversion?
Embankment (Unimproved Rd)	Spoils	Ford
Buildings	Steel	Grade control
Buildings/Roads	Bridge	Log structure
Disturbed	Bridge (foot)	Rock spur
Bates Townsite	Channel blocked	Rock spur?
Riprap	Channel blocked?	Structure
Riprap?	Channel cutoff by railroad grade	Weir
Levee	Channel cutoff by railroad grade?	
Levee?	Channel (tributary) cutoff by railroad grade	
Railroad Grade		

Forrest Property

Human Features					
	Tailings		Improved Road		Culvert
	Embankment		Unimproved Road		Diversion
	Embankment (Highway)		Irrigation Ditch		Diversion?
	Embankment (Unimproved Rd)		Spoils		Ford
	Buildings		Steel		Grade control
	Buildings/Roads		Bridge		Log structure
	Disturbed		Bridge (foot)		Rock spur
	Bates Townsite		Channel blocked		Rock spur?
	Riprap		Channel blocked?		Structure
	Riprap?		Channel cutoff by railroad grade		Weir
	Levee		Channel cutoff by railroad grade?		
	Levee?		Channel (tributary) cutoff by railroad grade		
	Railroad Grade				

Human Features, Impacted Areas of HCMZ, Cutoff Areas of Floodplain for Upper John Day River
Map Panel 02

John Day River
Tributary Assessments

Map 7
May 2008

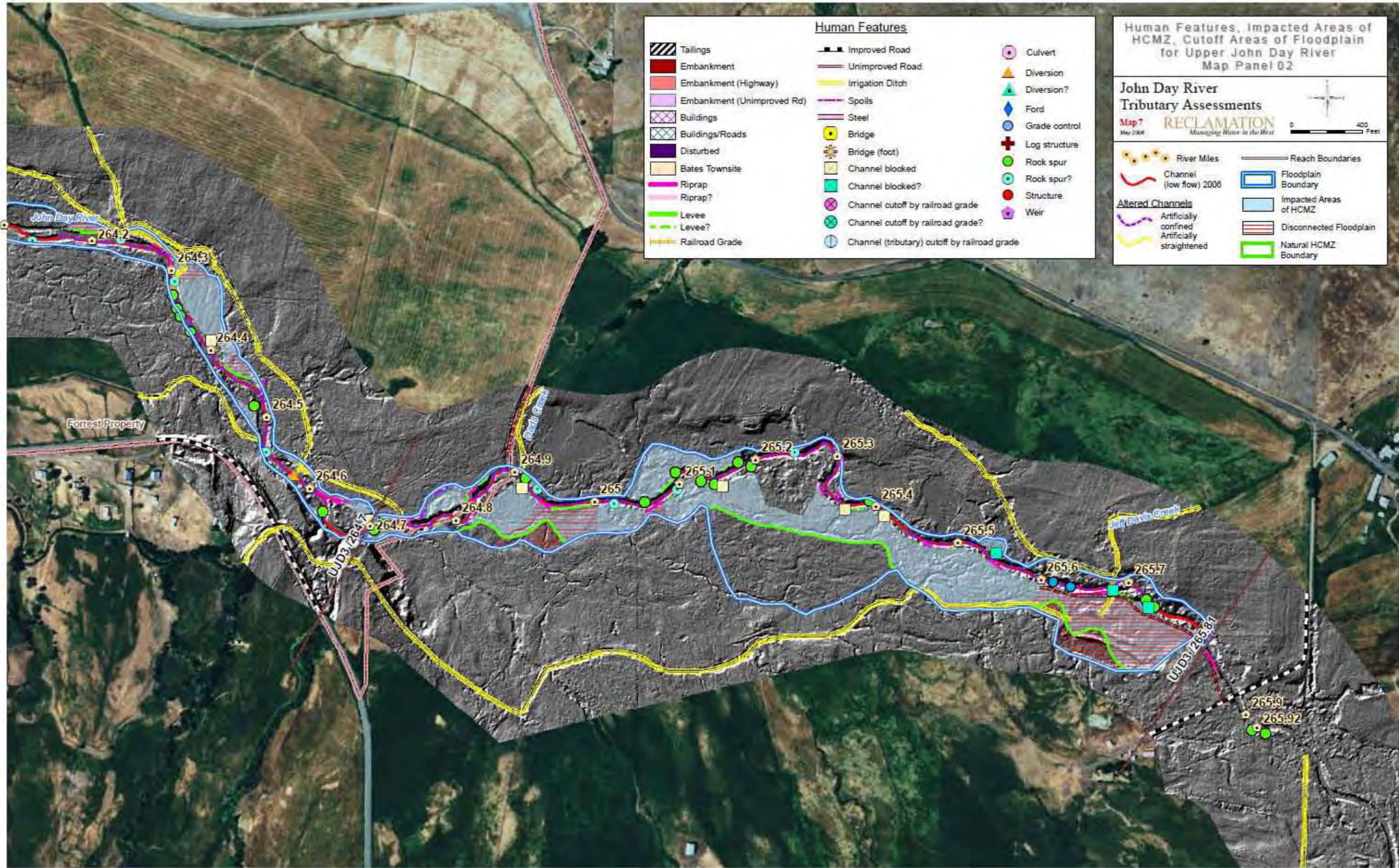
RECLAMATION
Managing Water in the West

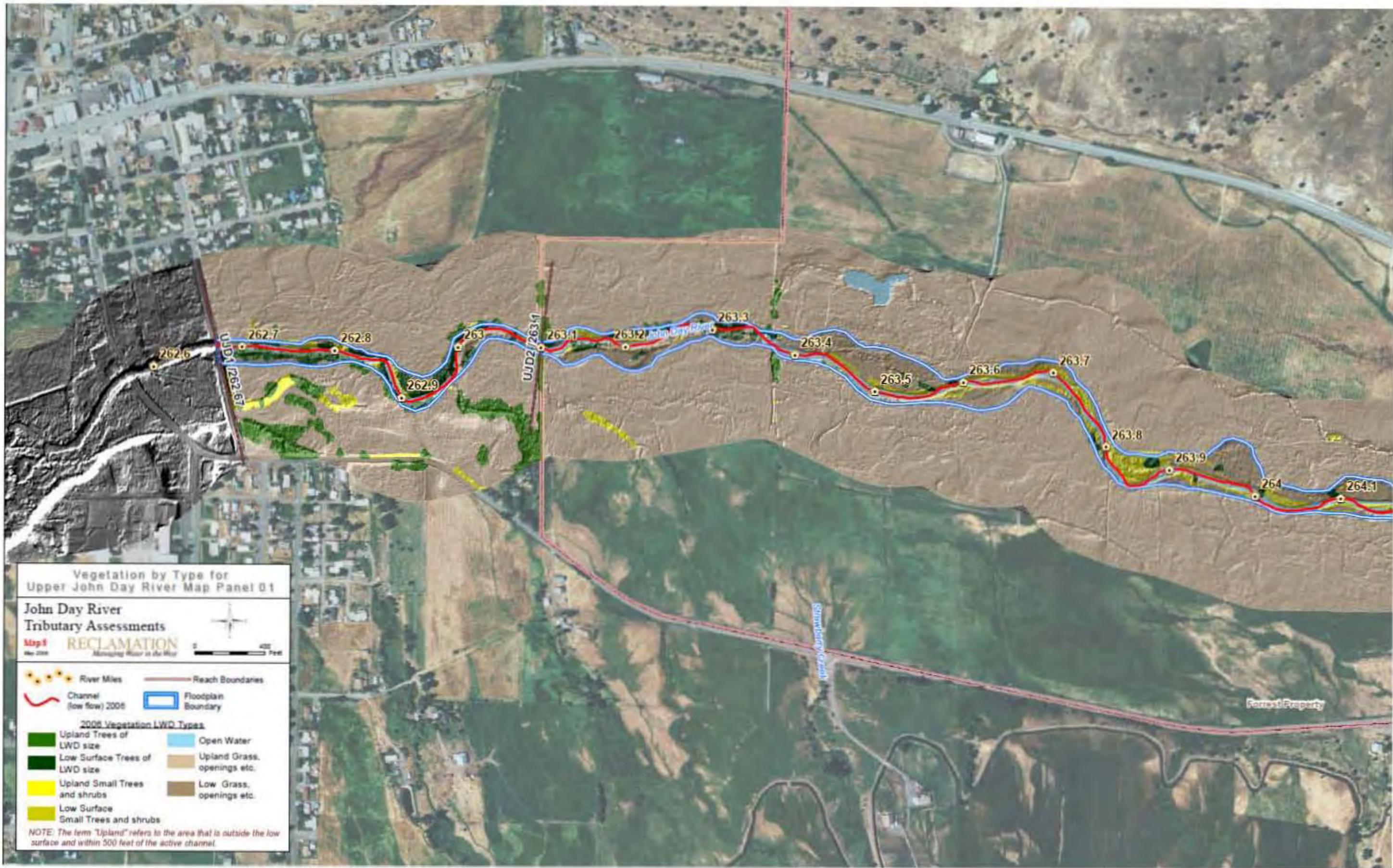
Altered Channels

- Artificially confined
- Artificially straightened

Other Symbols:

- River Miles
- Channel (low flow) 2008
- Reach Boundaries
- Floodplain Boundary
- Impacted Areas of HCMZ
- Disconnected Floodplain
- Natural HCMZ Boundary



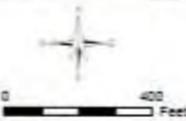


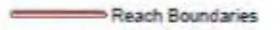
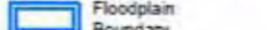
Vegetation by Type for
Upper John Day River Map Panel 02

**John Day River
Tributary Assessments**

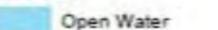
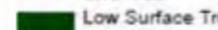
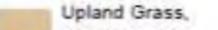
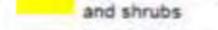
Map 9
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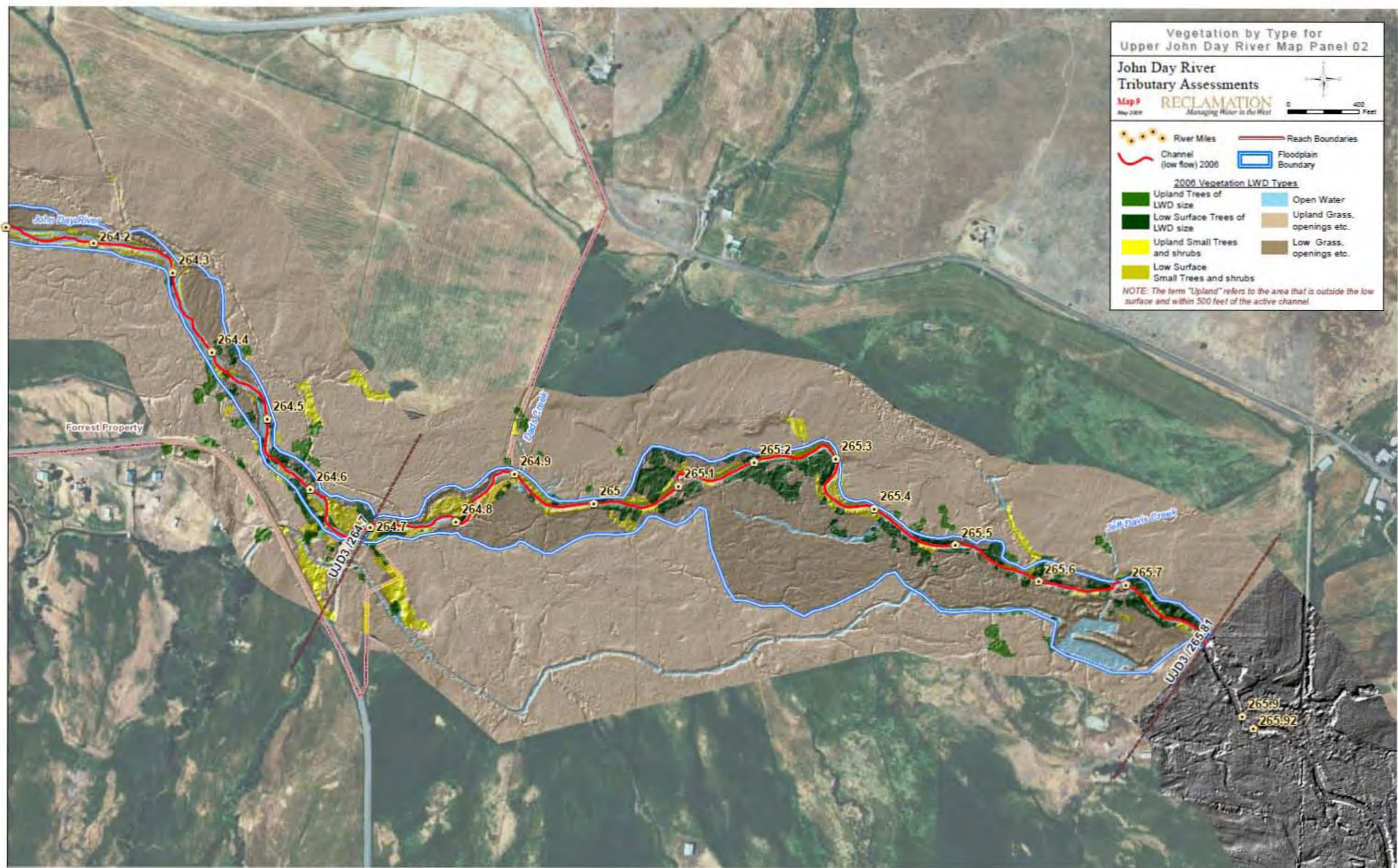


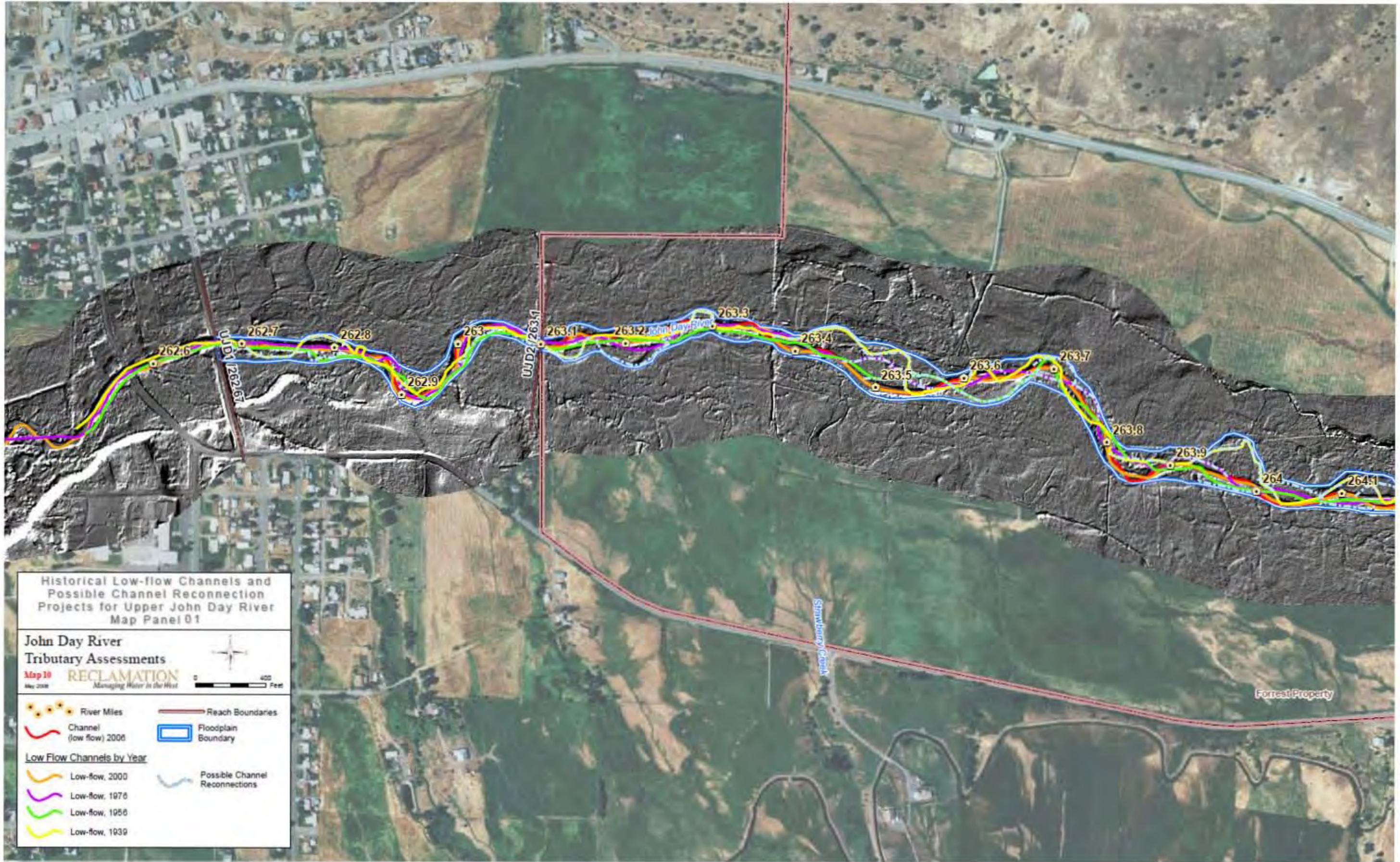
 River Miles
 Channel (low flow) 2006
 Reach Boundaries
 Floodplain Boundary

2006 Vegetation LWD Types

 Upland Trees of LWD size	 Open Water
 Low Surface Trees of LWD size	 Upland Grass, openings etc.
 Upland Small Trees and shrubs	 Low Grass, openings etc.
 Low Surface Small Trees and shrubs	

NOTE: The term "Upland" refers to the area that is outside the low surface and within 500 feet of the active channel.

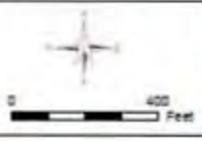




Historical Low-flow Channels and Possible Channel Reconnection Projects for Upper John Day River
Map Panel 01

**John Day River
Tributary Assessments**

Map 10 RECLAMATION
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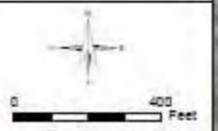


- River Miles
- Channel (low flow) 2008
- Floodplain Boundary
- Low-flow, 2000
- Low-flow, 1976
- Low-flow, 1956
- Low-flow, 1939
- Reach Boundaries
- Possible Channel Reconnections

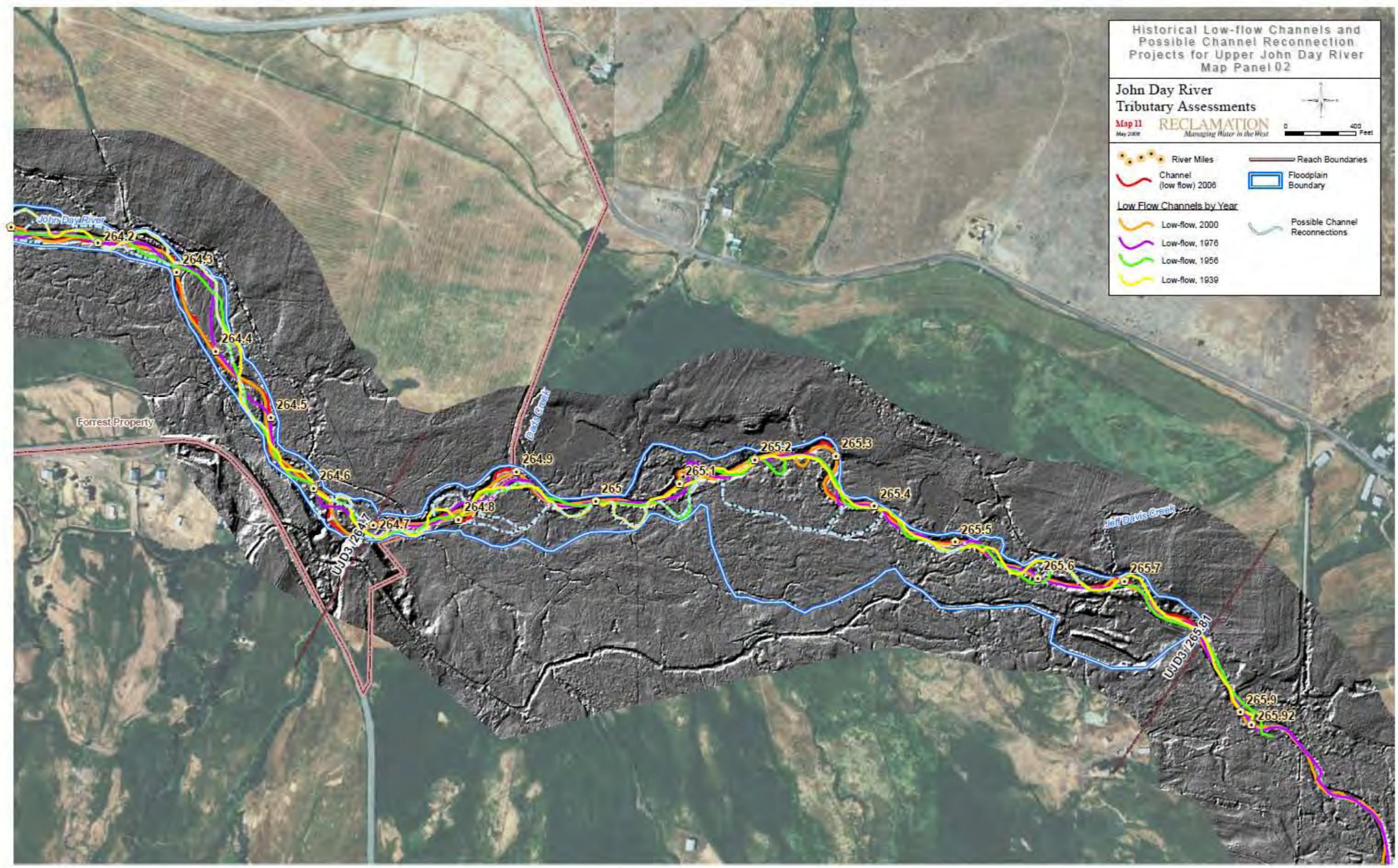
Forrest Property

Historical Low-flow Channels and Possible Channel Reconnection Projects for Upper John Day River
Map Panel 02

John Day River
Tributary Assessments
Map 11
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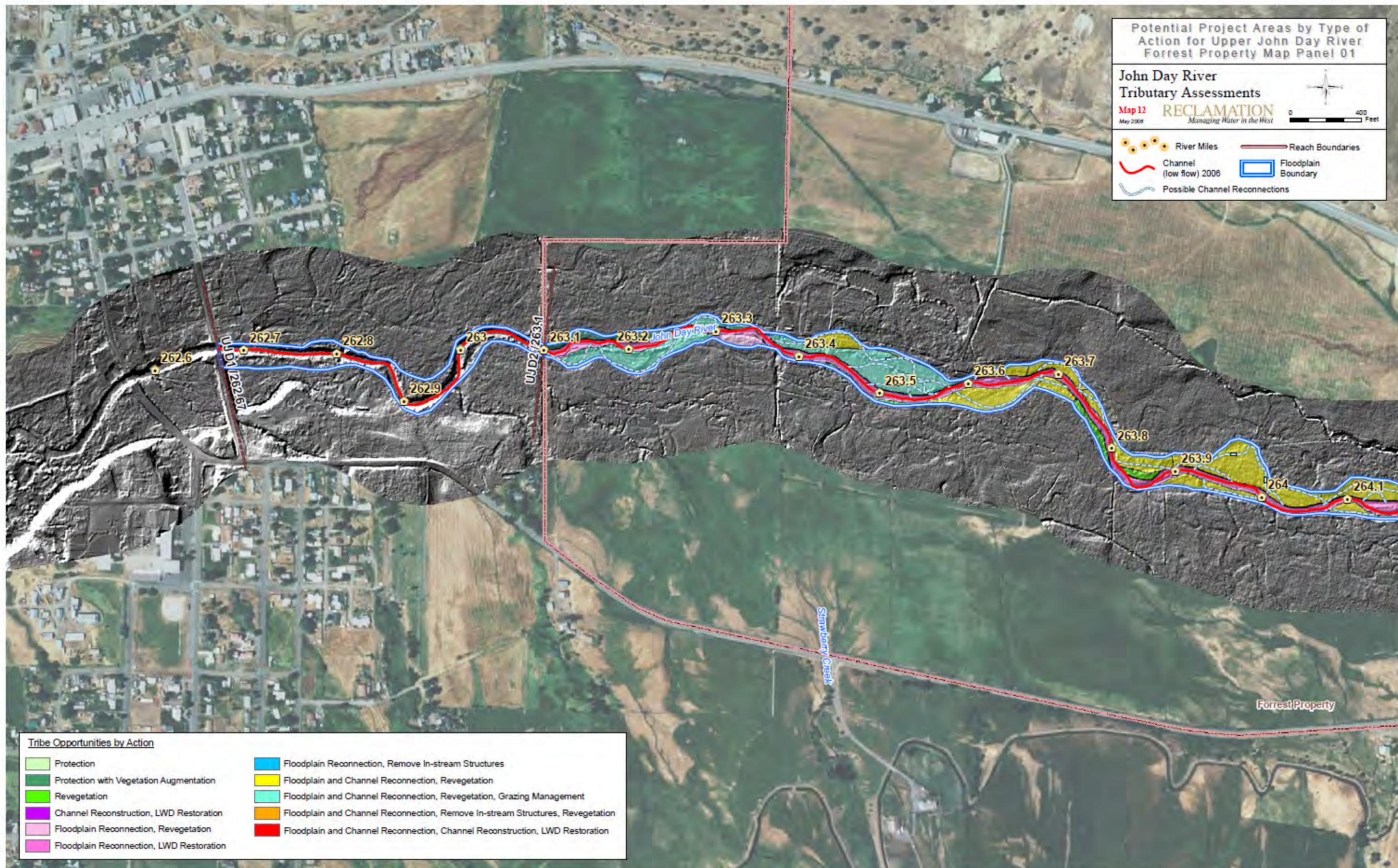
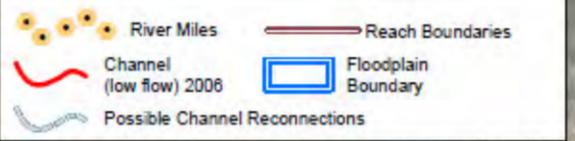
- River Miles
- Channel (low flow) 2008
- Floodplain Boundary
- Reach Boundaries
- Low-flow, 2000
- Low-flow, 1976
- Low-flow, 1956
- Low-flow, 1939
- Possible Channel Reconnections



Potential Project Areas by Type of Action for Upper John Day River
Forrest Property Map Panel 01

John Day River
Tributary Assessments

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Tribe Opportunities by Action

Protection	Floodplain Reconnection, Remove In-stream Structures
Protection with Vegetation Augmentation	Floodplain and Channel Reconnection, Revegetation
Revegetation	Floodplain and Channel Reconnection, Revegetation, Grazing Management
Channel Reconstruction, LWD Restoration	Floodplain and Channel Reconnection, Remove In-stream Structures, Revegetation
Floodplain Reconnection, Revegetation	Floodplain and Channel Reconnection, Channel Reconstruction, LWD Restoration
Floodplain Reconnection, LWD Restoration	

Tribe Opportunities by Action

- | | |
|--|--|
|  Protection |  Floodplain Reconnection, Remove In-stream Structures |
|  Protection with Vegetation Augmentation |  Floodplain and Channel Reconnection, Revegetation |
|  Revegetation |  Floodplain and Channel Reconnection, Revegetation, Grazing Management |
|  Channel Reconstruction, LWD Restoration |  Floodplain and Channel Reconnection, Remove In-stream Structures, Revegetation |
|  Floodplain Reconnection, Revegetation |  Floodplain and Channel Reconnection, Channel Reconstruction, LWD Restoration |
|  Floodplain Reconnection, LWD Restoration | |

**Potential Project Areas by Type of Action for Upper John Day River
Forrest Property Map Panel 02**

**John Day River
Tributary Assessments**

Map 13
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0 400 Feet

 River Miles

 Reach Boundaries

 Channel (low flow) 2008

 Floodplain Boundary

 Possible Channel Reconnections

