

**SJRIP PIT TAGS and EQUIPMENT  
2022 Project Proposal**

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**BACKGROUND:**

PIT tags are used to individually mark fish for use in movement studies and for mark-recapture estimates in the San Juan River Basin. PIT tags are not specific to any particular project but are used by several different projects. PIT tags and readers purchased for the SJRIP will be combined with the purchase made for the UCRIP to save money by purchasing larger quantities and save expenses associated with administering the contract. All PIT tags and readers are shipped to USFWS in Grand Junction at:

Travis Francis  
U.S. Fish & Wildlife Service  
Grand Junction FWCO  
445 West Gunnison Ave., Suite 140  
Grand Junction, CO 81501  
Office - 970-628-7204  
Cell - 970-270-8032  
[travis\\_francis@fws.gov](mailto:travis_francis@fws.gov)

In FY2022 there are additional PIT-tag related equipment needs including submersible antennas, batteries, chargers and a single 15-foot antenna that are required to support other projects and these are listed below.

**TASKS – 2022**

1. Purchase PIT tags and readers and distribute to end-users
2. Purchase 12, 3-foot, portable, submersible, PIT-tag antennas for use on various projects on the San Juan River. Purchase also includes extra batteries for each antenna as well as battery chargers. See detailed quote below.
3. Purchase equipment and install a single autonomous 15-foot PIT-tag for installation near Slickhorn Gulch for detecting spawning fish near this location.

In FY2022, \$40,000.00 is allocated in the workplan to purchase 20,000 PIT tags and associated equipment (readers, antennas, implanters, etc.).

The 12 separate portable submersible antennas are being purchased to initially provide the ability to detect fish using various habitat modifications including brush piles and shoreline habitats. The antennas are being purchased as part of a bigger project to provide habitat modifications to Colorado pikeminnow.

The additional antenna for installation at Slickhorn Gulch is being planned for installation in early FY2022 at a suspected spawning bar for razorback suckers in the lower Canyon. The other equipment and supplies that are required for this installation including solar panels, job box, and electronics have already been purchased as part of the initial project to install autonomous PIT antennas in the SJR. This material is “left-over” because one of the three autonomous antennas was installed at the TNC Restoration Site which allowed us to integrate the antenna with the other infrastructure that is already located at that site.

**FY 2022 BUDGET**

<b>Funding source</b>		<b>Projected expenditure in FY22</b>
FY2022 Annual funding	20,000 PIT Tags	\$40,000.0
FY2021 Capital Funding <sup>1</sup>	12—3-foot submersible antennas, battery packs and battery chargers	\$117,210.00
FY2021 Capital Funding	Antenna Installation at Slickhorn	16,367.71
<b>Total</b>		<b>\$173,577.71</b>

**Projected funding:**  
**FY-2023 \$40,000.00**

Biomark, Inc.  
 705 S. 8th Street  
 Boise, ID 83702  
 Phone: 208-275-0011  
 Fax: 208-275-0031  
 www.biomark.com



**QUOTE**

Sell To: BUREAU OF RECLAMATION  
 125 S. STATE ST. ROOM 8100  
 SALT LAKE CITY, UT 84138-1147  
 UNITED STATES

Ship To: BUREAU OF RECLAMATION  
 125 S. STATE ST. ROOM 8100  
 SALT LAKE CITY, UT 84138-1147  
 UNITED STATES

QUOTE NO.	SHIP VIA	TERMS	SALES PERSON	SALES QUOTE DATE
SQ21127		Net 30 Days		05/08/21
QTY	ITEM NO.	DESCRIPTION	UNIT PRICE	TOTAL PRICE
12		3 Submersible Antenna System IS1001	4,575.00	54,900.00
24		180 AH Battery Pack	2,510.00	60,240.00
6	SUB BATT CHG 12V	Submersible Batt Charger 12V	345.00	2,070.00

All returns require prior approval and may be subject to a 20% restocking fee. Returns or refunds cannot be issued on project related purchases, special or custom orders, or partially used full vials. All sales are final for tags sold in partial vials. Biomark's standard warranty of 12 months applies to all purchases. Visit <a href="http://www.biomark.com">www.biomark.com</a> for details. Prices, taxes, shipping and handling fees are subject to change if any part of this order is modified. Any applicable taxes will be charged for orders shipping to Idaho, Washington, Utah and Minnesota. Quotes and orders are good for 30 days from date of document. A 1.5% per month finance charge will be applied to past due accounts.	QUOTE AMOUNT	117,210.00
	TAXABLE TOTAL	0.00
	SALES TAX	0.00
	TOTAL QUOTE	117,210.00
	FEIN: 82-0438042 CHECKS MUST BE IN U.S. FUNDS DRAWN ON A U.S. BANK	

**Slickhorn antenna install**

**Budget Summary**



705 S. 8th St.  
Boise, ID 83702  
PHONE: (208) 275-0011  
FAX: (208) 275-0031

SUMMARY	Subtotal	Grand Total	Cumulative Total
Phase 1: Site Visit	\$0	\$0	\$0
Phase 2: System Test	\$347	\$347	\$347
Phase 3: Installation	\$9,573	\$9,573	\$9,921
Phase 4: O&M	\$0	\$0	\$9,921
<b>TOTAL</b>	<b>\$9,920.71</b>		

**SUMMARY (all Phases)**

Labor	Hours	Rate	Subtotal
(1) Project Manager	8,6625	\$169.00	\$1,464
(2) Chief Scientist	0	\$143.00	\$0
(3) Senior Scientist	0	\$130.00	\$0
(4) Scientist (Biology)	0	\$93.00	\$0
(5) Fisheries Specialist	2.75	\$101.00	\$278
(6) Technician (Biology)	0	\$65.00	\$0
(7) Typist/Clerical	0	\$65.00	\$0
(8) Electronic Technician	55	\$116.00	\$6,380
(9) Senior Electronic Eng.	0	\$157.00	\$0
<b>Labor Total</b>	<b>66,4125</b>		<b>\$8,121.71</b>

**Nonlabor**

Travel	\$1,799
Equipment	\$6,441
<b>Nonlabor Total</b>	<b>\$8,240.00</b>

<b>Total</b>	<b>\$16,361.71</b>
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\* QUOTE GOOD FOR 90 DAYS

\*\* IF PROJECT START DATE EXCEEDS 180 DAYS FROM BID DATE, PRICE ESCALATION MAY BE REQUIRED.

\*\*\*NO RETURNS OR REFUNDS CAN BE ISSUED ON PROJECT RELATED PURCHASES AND SPECIAL ORDERS

\*\*\*\*BIOMARK'S STANDARD WARRANTY APPLIES

*How can the technical aspects of this SOW be improved?*

**Miller (Southern Ute Indian Tribe):** It would be useful to add the previous range of quantity of PIT tags purchased in previous years to show the importance and scope of this purchase.

**Response:** PIT Tags purchased in previous years is variable depending on numbers used the year before and depending on anticipated stocking needs. PIT Tags are delivered to USFWS office in Grand Junction and distributed by USFWS to various facilities. In 2020 the funds were used to load 80,000 loose tags into pre-loaded needles to make it easier to tag fish. The tags that were preloaded had already been purchased in previous years. I can start reporting the number purchased in the following SOWs.

*What is this SOW's contribution to recovery?*

**Miller (Southern Ute Indian Tribe):** These tags allow passive contacts and long term contacts on previously stocked or captured fish. This long term data set allows better understanding of endangered fish retention and movement in the river.