



Over the years, the Recovery Program has identified a need to expand stream gaging in the basin to support development of flow recommendations, quantify sediment movement, and administer water secured for endangered fish. This scope of work covers the Recovery Program gaging program and identifies the contributions of cooperating agencies. Cooperators are USGS and the Colorado State Engineers Office. Gages are funded directly by the Recovery Program by funds administered by the Bureau of Reclamation.

IV. Study Goals, Objectives, End Products:

Provide a basis for refining the flow recommendations for the important stream reaches of the Colorado, Yampa, Price and Duchesne Rivers.

Aid in scheduling releases from Ruedi, Wolford, Williams Fork, Granby, Elkhead and Green Mountain reservoirs and other water sources which may be acquired by the Recovery Program.

Gaging has been upgraded to provide reliable system for monitoring flows in the lower Duchesne River.

V. Study Area: Colorado, Green, Yampa, and Duchesne Rivers.

VI. Study Methods/Approach:

The Recovery Program will work with cooperators to operate gages of importance. The relevant gages are described below.

VII. Task Description and Schedule:

- A. Colorado River near Palisade, Colorado gage (#09106150) is the flow target measurement location for the 15-Mile Reach. It was installed in FY-90 below the large irrigation diversions in the Grand Valley of Colorado.

Added in 2017: Operate and maintain temperature equipment installed on the USGS Colorado River near the Colorado-Utah State Line gage (#09163500).

- B. Yampa River flow gages (at Deerlodge Park, above Elkhead Creek, and below Craig) were installed in FY-97 by the Recovery Program. The gage on the Yampa River above Elkhead Creek (USGS #09244490) is 50% funded by the Program, 50% funded by the State of Wyoming. The gage on the Yampa River below Craig is 25% funded by the State of Wyoming, with the remainder funded by the Colorado River Water Conservancy District and the City of Craig.

Williams Fork near Hamilton (below Craig) gage: In about 2005, the Division Engineer (Bob Plaska) was adamant that this gage for tributary inflow to the Yampa

was necessary for their office to administer and protect reservoir releases made from Elkhead Creek Reservoir. This is a state-operated gage used to help distinguish reservoir water from natural flow in the Yampa River below Williams Fork. Tri-State is interested in this gage located downstream of their diversions, as in a dry year like 2012 or 2018 it allows the flows at the Craig gage station to be compared to senior diversions downstream of their diversion. Tri-State does not want to be called out by a downstream senior and uses this information to compute what to release from their own reservoir storage.

C. Yampa River at Deerlodge Park temperatures:

In addition to funding a gage for flow measurement on the Yampa River at Deerlodge Park, Colorado (USGS #09260050; 50% Program funding and 50% State of Wyoming funding), the Recovery Program (25%) and the State of Wyoming (75%) also fund USGS to monitor water temperatures at that gage.

D. Duchesne and Uinta Rivers flow gages:

Installed in FY-97 by the Central Utah Water Conservancy District. The Recovery Program will cost-share:

The Duchesne River at Myton gaging station, located 34.4 river miles downstream of Starvation Dam and with a flow-change arrival time of 17 to 20 hours from the dam, provides us with river conditions after the influences of the Duchesne Feeder Canal Diversion, the Gray Mountain Diversion, the Myton Townsite Diversion, and the inflows from the Lake Fork River. This is also one of the oldest functioning gaging stations in the Uintah Basin with a long history of river data.

The Duchesne River above Uinta River near Randlett gaging station provides us with river conditions (flow and temperature) after the additional influences of the Riverdell Diversion and the Ouray School Diversion along with thunderstorm and evaporation influences. This gaging station also provides an important double-check and confirmatory reading, along with the Uinta-River-at-Randlett gaging station, for flows passing the Duchesne-River-near-Randlett gaging station. It also provides a similar double-check and confirmatory reading for the Duchesne-River-at-Myton gaging station.

The Uinta River at Randlett gaging station provides the only measurement point along the Uinta River that is used for lower Duchesne River operations. It provides natural flow and thunderstorm activity information and is used to monitor flow releases from Big Sand Wash Reservoir, via the Big Sand Wash-Roosevelt Pipeline, for instream flow purposes. Releases from this pipeline travel 19.6 river miles to this gaging station. Consistent flow travel time has not yet been determined, and this is an additional item of study requiring this gaging station.

The Duchesne-River-near-Randlett gaging station, located 58.5 river miles

downstream of Starvation Dam and with a flow-change arrival time of 34 to 40 hours from the dam, is the milestone gaging station (flow and temperature) where all targets are measured. All lower Duchesne river operations, documentation, and reporting hinge on the information from this gaging station.

Operate and maintain the temperature equipment on the Duchesne River installed in FY-97 by the Central Utah Water Conservancy District anear Randlett and above Uinta River. The Recovery Program will cost-share in the operation of this equipement.

Managing the Duchesne River System for target flows requires coordination among several entities: Central Utah Water Conservancy District (CUWCD), Upper Colorado River Endangered Fish Recovery Program (Program), U.S. Department of the Interior Central Utah Project Completion Act Office, U.S. Bureau of Reclamation, U.S. Geological Survey (USGS), U.S. Weather Service, U.S. Natural Resources Conservation Service, Utah Division of Wildlife Resources, Utah Division of Water Rights, Duchesne/Strawberry Water Users Association, Moon Lake Water Users Association, Duchesne County Water Conservancy District, Ute Tribe, and several other independent canal companies and water users. This effort has been facilitated by the Duchesne River Working Group (DRWG) and the Inter-agency Biological Assessment Team (IBAT) over the past two decades. The DRWG and the IBAT meet on a semi-annual basis, usually in November and April. This work is summarized in the 2004-2011 Water Management Report, August 2013. (An updated five-year report for 2012-2016 will be provided in 2019.)

Shepherding lower Duchesne River instream flows from Starvation Dam and Big Sand Wash Dam is done by local agreement and not by state law. This agreement, initially verbal, but now, to a degree, written, has culminated in a Safe Harbor Agreement/Candidate Conservation Agreement with assurances by local water users to allow the instream flows to bypass their diversions. This effort is partially supported by assurances that water users have adequate flow measurements by these four gaging stations. CUWCD's position is that for continued success, all four gaging stations need to be in place. Removal would result in the use of more water to attain target flows to compensate for less information available within the Uinta Basin, with the likely effect of acheiving target flows less frequently.

E. Green River flow and temperature gages:

Fund a USGS flow gage on the Green River at Ouray, Utah (#09272400, installed in 2009). Continued water temperature monitoring by the USGS above Gates of Lodore (#404417108524900) is funded by the Recovery Program (25%) and the State of Wyoming (75%).

Operate and maintain the USGS temperature equipment installed on the USGS Green River near Jensen, Utah gage (#09261000) installed in FY-98 for the Recovery Program. The Recovery Program will cover the operation of this temperature gage.

F. Price River flow and temperature gage:

Operate and maintain the gage installed on the Price River near Woodside, UT (#09314500). The gage was requested by the Biology Committee. River stage/flow and temperature will be collected. The Recovery Program will cost-share in the operation of this gage.

VIII. Study Schedule: gages are operated on an October to September Water/Fiscal year.

Deliverables: Provisional USGS data are available at: <http://waterdata.usgs.gov/nwis/rt>. The data are finalized in March of each year. Historic data are also available on the web but usually lag a year because of quality assurance procedures and the volume of data which must be processed by USGS. Temperature for Lodore, Jensen and Deerlodge is available at:

[http://waterdata.usgs.gov/nwis/uv?multiple\\_site\\_no=404417108524900%0D%0A09260050%0D%0A09261000&search\\_site\\_no\\_match\\_type=exact&index\\_pmcode\\_00010=5&index\\_pmcode\\_82292](http://waterdata.usgs.gov/nwis/uv?multiple_site_no=404417108524900%0D%0A09260050%0D%0A09261000&search_site_no_match_type=exact&index_pmcode_00010=5&index_pmcode_82292)

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USBR contact that coordinates contracts

<b>UCREFRP Stream Gages FY 2020</b>	<b>\$ 172,393</b>
<b>UCREFRP Stream Gages FY 2021</b>	<b>\$ 175,841</b>
<b>UCREFRP Stream Gages FY 2022</b>	<b>\$ 179,358</b>
<b>UCREFRP Stream Gages FY 2023</b>	<b>\$ 182,945</b>
<b>UCREFRP Stream Gages FY 2024</b>	<b>\$ 186,604</b>

Note: The following tables identify costs per gage, and associated Recovery Program share. The share of costs paid by State of Wyoming on certain gages is also identified.

The USGS Colorado and Utah Water USGS Science Centers independently estimate their program costs for the Recovery Program largely based on local salary structure and logistical factors specific to the networks they each operate; however, their cost-estimate methodology is reasonably consistent. The percentage of operation and maintenance costs for the stream gages and temperature monitors operated by the USGS for the Recovery Program is typically distributed among the following activities:

Labor for field and office:	41%
Administrative support:	25%
Building and Utilities:	10 %
Field Equipment:	10 %
Data Management and Data Delivery:	7 %
Vehicles:	5 %
Travel (lodging and per diem):	2 %

**XI. Reviewers:** Recovery Program Staff. Kevin McAbee

FY 2020				Assumes 2.0% cost increase from previous year									
ID	Site	Parameter	FY2019 Cost (Total)	Cost-share Responsibilities						FY2020 Cost Share			
				Recovery Program	State of WY	CWCB	CRWCD + City of Craig	USBR	USGS	Recovery Program Share	State of WY share	CWCB share	
<b>Yampa River Basin</b>													
CO WMFKMHCO	Williams Fork near Hamilton, CO	Flow	5,896	100%		0%					\$ 5,896	\$ -	\$ -
USGS #09244490	Yampa River above Elkhead Creek, CO	Flow	17,605	50%	50%						\$ 8,803	\$ 8,803	\$ -
USGS #09247600	Yampa River below Craig, CO	Flow	17,605		25%		75%				\$ -	\$ 4,401	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Flow	17,605	50%	50%						\$ 8,803	\$ 8,803	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Temperature	4,988	25%	75%						\$ 1,247	\$ 3,741	\$ -
<b>Mainstem Colorado River</b>													
USGS #09106150	Colorado River near Palisade, CO	Flow	17,605	100%							\$ 17,605	\$ -	\$ -
USGS #09163500	Colorado River at Colo-Utah State Line	Temperature	4,988	75%						25%	\$ 3,741	\$ -	\$ -
<b>Green River</b>													
404417108524900	Green River above Gates of Ladore, CO	Temperature	4,988	25%	75%						\$ 1,247	\$ 3,741	\$ -
USGS #09261000	Green River near Jensen, UT	Flow	17,136	0%						100%	\$ -	\$ -	\$ -
USGS #09261000	Green River near Jensen, UT	Temperature	5,610	100%							\$ 5,610	\$ -	\$ -
USGS #09272400	Green River at Ouray, UT	Flow	17,136	100%							\$ 17,136	\$ -	\$ -
<b>Duchesne River</b>													
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Flow	17,136	100%							\$ 17,136	\$ -	\$ -
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Temp	5,610	100%							\$ 5,610	\$ -	\$ -
USGS #09301500	Uinta River nr Randlett, UT	Flow	17,136	100%							\$ 17,136	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Flow	17,136	100%							\$ 17,136	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Temp	5,610	50%						50%	\$ 2,805	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Conductance		0%						100%	\$ -	\$ -	\$ -
USGS #09295000	Duchesne River at Myton, UT	Flow	17,136	100%							\$ 17,136	\$ -	\$ -
<b>Other</b>													
USGS #09314500	Price River near Woodside, UT	Flow	22,542	100%							\$ 22,542	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Temp	5,610	50%						50%	\$ 2,805	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Conductance		0%							\$ -	\$ -	\$ -
<b>TOTALS</b>											<b>\$ 172,393</b>	<b>\$ 29,488</b>	<b>\$ -</b>

FY 2021				Assumes 2.0% cost increase from previous year									
ID	Site	Parameter	FY2019 Cost (Total)	Cost-share Responsibilities						FY2021 Cost Share			
				Recovery Program	State of WY	CWCB	CRWCD + City of Craig	USBR	USGS	Recovery Program Share	State of WY share	CWCB share	
<b>Yampa River Basin</b>													
CO WMFKMHCO	Williams Fork near Hamilton, CO	Flow	6,014	100%		0%					\$ 6,014	\$ -	\$ -
USGS #09244490	Yampa River above Elkhead Creek, CO	Flow	17,957	50%	50%						\$ 8,979	\$ 8,979	\$ -
USGS #09247600	Yampa River below Craig, CO	Flow	17,957		25%		75%				\$ -	\$ 4,489	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Flow	17,957	50%	50%						\$ 8,979	\$ 8,979	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Temperature	5,088	25%	75%						\$ 1,272	\$ 3,816	\$ -
<b>Mainstem Colorado River</b>													
USGS #09106150	Colorado River near Palisade, CO	Flow	17,957	100%							\$ 17,957	\$ -	\$ -
USGS #09163500	Colorado River at Colo-Utah State Line	Temperature	5,088	75%					25%		\$ 3,816	\$ -	\$ -
<b>Green River</b>													
404417108524900	Green River above Gates of Ladore, CO	Temperature	5,088	25%	75%						\$ 1,272	\$ 3,816	\$ -
USGS #09261000	Green River near Jensen, UT	Flow	17,479	0%					100%		\$ -	\$ -	\$ -
USGS #09261000	Green River near Jensen, UT	Temperature	5,722	100%							\$ 5,722	\$ -	\$ -
USGS #09272400	Green River at Ouray, UT	Flow	17,479	100%							\$ 17,479	\$ -	\$ -
<b>Duchesne River</b>													
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Flow	17,479	100%							\$ 17,479	\$ -	\$ -
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Temp	5,722	100%							\$ 5,722	\$ -	\$ -
USGS #09301500	Uinta River nr Randlett, UT	Flow	17,479	100%							\$ 17,479	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Flow	17,479	100%							\$ 17,479	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Temp	5,722	50%				50%			\$ 2,861	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Conductance		0%				100%			\$ -	\$ -	\$ -
USGS #09295000	Duchesne River at Myton, UT	Flow	17,479	100%							\$ 17,479	\$ -	\$ -
<b>Other</b>													
USGS #09314500	Price River near Woodside, UT	Flow	22,993	100%							\$ 22,993	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Temp	5,722	50%				50%			\$ 2,861	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Conductance		0%							\$ -	\$ -	\$ -
<b>TOTALS</b>											<b>\$ 175,841</b>	<b>\$ 30,078</b>	<b>\$ -</b>



FY 2022				Assumes 2.0% cost increase from previous year									
ID	Site	Parameter	FY2019 Cost (Total)	Cost-share Responsibilities						FY2022 Cost Share			
				Recovery Program	State of WY	CWCB	CRWCD + City of Craig	USBR	USGS	Recovery Program Share	State of WY share	CWCB share	
<b>Yampa River Basin</b>													
CO WMFKMHCO	Williams Fork near Hamilton, CO	Flow	6,134	100%		0%					\$ 6,134	\$ -	\$ -
USGS #09244490	Yampa River above Elkhead Creek, CO	Flow	18,316	50%	50%						\$ 9,158	\$ 9,158	\$ -
USGS #09247600	Yampa River below Craig, CO	Flow	18,316		25%		75%				\$ -	\$ 4,579	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Flow	18,316	50%	50%						\$ 9,158	\$ 9,158	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Temperature	5,189	25%	75%						\$ 1,297	\$ 3,892	\$ -
<b>Mainstem Colorado River</b>													
USGS #09106150	Colorado River near Palisade, CO	Flow	18,316	100%							\$ 18,316	\$ -	\$ -
USGS #09163500	Colorado River at Colo-Utah State Line	Temperature	5,189	75%						25%	\$ 3,892	\$ -	\$ -
<b>Green River</b>													
404417108524900	Green River above Gates of Ladore, CO	Temperature	5,189	25%	75%						\$ 1,297	\$ 3,892	\$ -
USGS #09261000	Green River near Jensen, UT	Flow	17,828	0%						100%	\$ -	\$ -	\$ -
USGS #09261000	Green River near Jensen, UT	Temperature	5,837	100%							\$ 5,837	\$ -	\$ -
USGS #09272400	Green River at Ouray, UT	Flow	17,828	100%							\$ 17,828	\$ -	\$ -
<b>Duchesne River</b>													
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Flow	17,828	100%							\$ 17,828	\$ -	\$ -
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Temp	5,837	100%							\$ 5,837	\$ -	\$ -
USGS #09301500	Uinta River nr Randlett, UT	Flow	17,828	100%							\$ 17,828	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Flow	17,828	100%							\$ 17,828	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Temp	5,837	50%					50%		\$ 2,918	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Conductance		0%					100%		\$ -	\$ -	\$ -
USGS #09295000	Duchesne River at Myton, UT	Flow	17,828	100%							\$ 17,828	\$ -	\$ -
<b>Other</b>													
USGS #09314500	Price River near Woodside, UT	Flow	23,453	100%							\$ 23,453	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Temp	5,837	50%					50%		\$ 2,918	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Conductance		0%							\$ -	\$ -	\$ -
<b>TOTALS</b>											<b>\$ 179,358</b>	<b>\$ 30,680</b>	<b>\$ -</b>

FY 2023				Assumes 2.0% cost increase from previous year									
ID	Site	Parameter	FY2019 Cost (Total)	Cost-share Responsibilities						FY2023 Cost Share			
				Recovery Program	State of WY	CWCB	CRWCD + City of Craig	USBR	USGS	Recovery Program Share	State of WY share	CWCB share	
<b>Yampa River Basin</b>													
CO WMFKMHCO	Williams Fork near Hamilton, CO	Flow	6,257	100%		0%					\$ 6,257	\$ -	\$ -
USGS #09244490	Yampa River above Elkhead Creek, CO	Flow	18,683	50%	50%						\$ 9,341	\$ 9,341	\$ -
USGS #09247600	Yampa River below Craig, CO	Flow	18,683		25%		75%				\$ -	\$ 4,671	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Flow	18,683	50%	50%						\$ 9,341	\$ 9,341	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Temperature	5,293	25%	75%						\$ 1,323	\$ 3,970	\$ -
<b>Mainstem Colorado River</b>													
USGS #09106150	Colorado River near Palisade, CO	Flow	18,683	100%							\$ 18,683	\$ -	\$ -
USGS #09163500	Colorado River at Colo-Utah State Line	Temperature	5,293	75%						25%	\$ 3,970	\$ -	\$ -
<b>Green River</b>													
404417108524900	Green River above Gates of Ladore, CO	Temperature	5,293	25%	75%						\$ 1,323	\$ 3,970	\$ -
USGS #09261000	Green River near Jensen, UT	Flow	18,185	0%						100%	\$ -	\$ -	\$ -
USGS #09261000	Green River near Jensen, UT	Temperature	5,953	100%							\$ 5,953	\$ -	\$ -
USGS #09272400	Green River at Ouray, UT	Flow	18,185	100%							\$ 18,185	\$ -	\$ -
<b>Duchesne River</b>													
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Flow	18,185	100%							\$ 18,185	\$ -	\$ -
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Temp	5,953	100%							\$ 5,953	\$ -	\$ -
USGS #09301500	Uinta River nr Randlett, UT	Flow	18,185	100%							\$ 18,185	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Flow	18,185	100%							\$ 18,185	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Temp	5,953	50%					50%		\$ 2,977	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Conductance		0%					100%		\$ -	\$ -	\$ -
USGS #09295000	Duchesne River at Myton, UT	Flow	18,185	100%							\$ 18,185	\$ -	\$ -
<b>Other</b>													
USGS #09314500	Price River near Woodside, UT	Flow	23,922	100%							\$ 23,922	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Temp	5,953	50%					50%		\$ 2,977	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Conductance		0%							\$ -	\$ -	\$ -
<b>TOTALS</b>											<b>\$ 182,945</b>	<b>\$ 31,293</b>	<b>\$ -</b>

FY 2024				Assumes 2.0% cost increase from previous year									
ID	Site	Parameter	FY2019 Cost (Total)	Cost-share Responsibilities						FY2024 Cost Share			
				Recovery Program	State of WY	CWCB	CRWCD + City of Craig	USBR	USGS	Recovery Program Share	State of WY share	CWCB share	
<b>Yampa River Basin</b>													
CO WMFKMHCO	Williams Fork near Hamilton, CO	Flow	6,382	100%		0%					\$ 6,382	\$ -	\$ -
USGS #09244490	Yampa River above Elkhead Creek, CO	Flow	19,056	50%	50%						\$ 9,528	\$ 9,528	\$ -
USGS #09247600	Yampa River below Craig, CO	Flow	19,056		25%		75%				\$ -	\$ 4,764	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Flow	19,056	50%	50%						\$ 9,528	\$ 9,528	\$ -
USGS #09260050	Yampa River at Deerlodge Park, CO	Temperature	5,399	25%	75%						\$ 1,350	\$ 4,049	\$ -
<b>Mainstem Colorado River</b>													
USGS #09106150	Colorado River near Palisade, CO	Flow	19,056	100%							\$ 19,056	\$ -	\$ -
USGS #09163500	Colorado River at Colo-Utah State Line	Temperature	5,399	75%						25%	\$ 4,049	\$ -	\$ -
<b>Green River</b>													
404417108524900	Green River above Gates of Ladore, CO	Temperature	5,399	25%	75%						\$ 1,350	\$ 4,049	\$ -
USGS #09261000	Green River near Jensen, UT	Flow	18,549	0%						100%	\$ -	\$ -	\$ -
USGS #09261000	Green River near Jensen, UT	Temperature	6,072	100%							\$ 6,072	\$ -	\$ -
USGS #09272400	Green River at Ouray, UT	Flow	18,549	100%							\$ 18,549	\$ -	\$ -
<b>Duchesne River</b>													
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Flow	18,549	100%							\$ 18,549	\$ -	\$ -
USGS #09295100	Duchesne River abv Uinta R nr Randlett, UT	Temp	6,072	100%							\$ 6,072	\$ -	\$ -
USGS #09301500	Uinta River nr Randlett, UT	Flow	18,549	100%							\$ 18,549	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Flow	18,549	100%							\$ 18,549	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Temp	6,072	50%					50%		\$ 3,036	\$ -	\$ -
USGS #09302000	Duchesne River near Randlett, UT	Conductance		0%					100%		\$ -	\$ -	\$ -
USGS #09295000	Duchesne River at Myton, UT	Flow	18,549	100%							\$ 18,549	\$ -	\$ -
<b>Other</b>													
USGS #09314500	Price River near Woodside, UT	Flow	24,400	100%							\$ 24,400	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Temp	6,072	50%					50%		\$ 3,036	\$ -	\$ -
USGS #09314500	Price River near Woodside, UT	Conductance		0%							\$ -	\$ -	\$ -
<b>TOTALS</b>											<b>\$ 186,604</b>	<b>\$ 31,919</b>	<b>\$ -</b>

**SUMMARY OF PROPOSED COSTS**

<b>Name of Servicing Agency:</b>	USFWS
<b>Project Name:</b>	Project 8 - USGS Gauges

	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		TOTAL
	10/1/2020		10/1/2021		10/1/2022		10/1/2023		9/30/2024		
	Through		Through		Through		Through		Through		
Enter the BEGINNING dates for each year ----->	9/30/2021		9/30/2022		9/30/2023		9/29/2024		9/29/2025		
Enter the ENDING dates for each year ----->	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		TOTAL
<b>DIRECT LABOR AND FRINGE BENEFIT COSTS:</b>											
Direct Labor - Hourly	\$	52,402.55	\$	53,205.80	\$	54,269.92	\$	55,355.32	\$	56,462.42	\$ 271,696.01
Fringe Benefits - Hourly	\$	16,741.08	\$	17,075.91	\$	17,593.20	\$	17,945.07	\$	18,303.97	\$ 87,659.23
Subtotal of Direct Labor & Fringe Benefits:	\$	69,143.63	\$	70,281.71	\$	71,863.12	\$	73,300.38	\$	74,766.39	\$ 359,355.23
<b>OTHER DIRECT COSTS:</b>											
Materials and Supplies	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Travel Costs	\$	3,455.00	\$	3,524.10	\$	3,594.58	\$	3,666.47	\$	3,739.80	\$ 17,979.96
Equipment	\$	22,775.00	\$	23,230.50	\$	23,753.19	\$	24,168.87	\$	24,410.56	\$ 118,338.11
Contractors	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Subtotal of Other Direct Costs:	\$	26,230.00	\$	26,754.60	\$	27,347.77	\$	27,835.34	\$	28,150.36	\$ 136,318.07
<b>INDIRECT/OVERHEAD COSTS:</b>											
Subtotal of Labor and Other Direct Costs:	\$	95,373.63	\$	97,036.31	\$	99,210.89	\$	101,135.72	\$	102,916.75	
Total dollars exempt from indirect/overhead base:	\$	-	\$	-	\$	-	\$	-	\$	-	
<Enter Description of Indirect/OH Cost #1>	80.88%	\$ 77,134.38	80.88%	\$ 78,479.08	80.88%	\$ 80,237.80	80.88%	\$ 81,794.53	80.88%	\$ 83,234.95	\$ 400,880.74
Total dollars exempt from indirect/overhead base:	\$	-	\$	-	\$	-	\$	-	\$	-	
<Enter Description of Indirect/OH Cost #2>	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	\$ -
Subtotal of Indirect/Overhead Costs:	\$	77,134.38	\$	78,479.08	\$	80,237.80	\$	81,794.53	\$	83,234.95	\$ 400,880.74
<b>GRAND TOTAL:</b>	\$	172,508.02	\$	175,515.39	\$	179,448.68	\$	182,930.25	\$	186,151.70	\$ 896,554.04

# SUMMARY OF DIRECT LABOR & FRINGE BENEFITS

Enter Escalation Rates ----->	Yr 2 Escalation Rate	2.00%
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	Task # or Description	Position Title	GS/WG Grade	GS/WG Step	OPM Pay Location	Current Hourly Rate	YEAR 1					YEAR 2				
							10/1/2020		Through	9/30/2021		10/1/2021		Through	9/30/2022	
							# of Hours	Hourly Rate	Salary Cost	Fringe Rate	Fringe Cost	# of Hours	Hourly Rate	Salary Cost	Fringe Rate	Fringe Cost
1	UT flow gages (5)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	500.0	\$ 34.48	\$ 17,240.00	33.00%	\$ 5,689.20	500.0	\$ 35.17	\$ 17,584.80	33.00%	\$ 5,802.98
2	UT flow gages (5)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	350.0	\$ 23.30	\$ 8,155.00	35.00%	\$ 2,854.25	350.0	\$ 23.77	\$ 8,318.10	35.00%	\$ 2,911.34
3	Price R flow gage (1)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	140.0	\$ 34.48	\$ 4,827.20	33.00%	\$ 1,592.98	140.0	\$ 35.17	\$ 4,923.74	33.00%	\$ 1,624.84
4	Price R flow gage (1)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	85.0	\$ 23.30	\$ 1,980.50	35.00%	\$ 693.18	85.0	\$ 23.77	\$ 2,020.11	35.00%	\$ 707.04
5	UT temp gages (3.25)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	104.0	\$ 34.48	\$ 3,585.92	33.00%	\$ 1,183.35	104.0	\$ 35.17	\$ 3,657.64	33.00%	\$ 1,207.02
6	UT temp gages (3.25)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	84.5	\$ 23.30	\$ 1,968.85	35.00%	\$ 689.10	84.5	\$ 23.77	\$ 2,008.23	35.00%	\$ 702.88
7	CO flow gages (2)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	206.0	\$ 34.48	\$ 7,102.88	33.00%	\$ 2,343.95	206.0	\$ 35.17	\$ 7,244.94	33.00%	\$ 2,390.83
8	CO flow gages (2)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	146.0	\$ 23.30	\$ 3,401.80	35.00%	\$ 1,190.63	146.0	\$ 23.77	\$ 3,469.84	35.00%	\$ 1,214.44
9	CO Temp gages (1)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	30.0	\$ 34.48	\$ 1,034.40	33.00%	\$ 341.35	30.0	\$ 35.17	\$ 1,055.09	33.00%	\$ 348.18
10	CO Temp gages (1)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	20.0	\$ 23.30	\$ 466.00	35.00%	\$ 163.10	20.0	\$ 23.77	\$ 475.32	35.00%	\$ 166.36
11	SEO gage (1)	State of CO not Fed				\$ 30.00	88.0	\$ 30.00	\$ 2,640.00	0.00%	\$ -	80.0	\$ 30.60	\$ 2,448.00	0.00%	\$ -
12						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
13						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
14						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
15						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
16						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
17						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
18						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
19						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
20						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
21						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
22						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
23						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
24						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
25						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
26						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
27						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
28						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
29						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
							<b>1,753.50</b>		<b>\$ 52,402.55</b>		<b>\$ 16,741.08</b>	<b>1,745.50</b>		<b>\$ 53,205.80</b>		<b>\$ 17,075.91</b>

# SUMMARY OF DIRECT LABOR & FRINGE BENEFIT

Yr 3 Escalation Rate 2.00%

Yr 4 Escalation Rate 2.00%

	Task # or Description	Position Title	GS/WG Grade	GS/WG Step	OPM Pay Location	Current Hourly Rate	YEAR 3					YEAR 4				
							10/1/2022		Through	9/30/2023		10/1/2023		Through	9/29/2024	
							# of Hours	Hourly Rate	Salary Cost	Fringe Rate	Fringe Cost	# of Hours	Hourly Rate	Salary Cost	Fringe Rate	Fringe Cost
1	UT flow gages (5)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	500.0	\$ 35.87	\$ 17,936.50	33.50%	\$ 6,008.73	500.0	\$ 36.59	\$ 18,295.23	33.50%	\$ 6,128.90
2	UT flow gages (5)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	350.0	\$ 24.24	\$ 8,484.46	35.00%	\$ 2,969.56	350.0	\$ 24.73	\$ 8,654.15	35.00%	\$ 3,028.95
3	Price R flow gage (1)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	140.0	\$ 35.87	\$ 5,022.22	33.50%	\$ 1,682.44	140.0	\$ 36.59	\$ 5,122.66	33.50%	\$ 1,716.09
4	Price R flow gage (1)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	85.0	\$ 24.24	\$ 2,060.51	35.00%	\$ 721.18	85.0	\$ 24.73	\$ 2,101.72	35.00%	\$ 735.60
5	UT temp gages (3.25)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	104.0	\$ 35.87	\$ 3,730.79	33.50%	\$ 1,249.82	104.0	\$ 36.59	\$ 3,805.41	33.50%	\$ 1,274.81
6	UT temp gages (3.25)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	84.5	\$ 24.24	\$ 2,048.39	35.00%	\$ 716.94	84.5	\$ 24.73	\$ 2,089.36	35.00%	\$ 731.28
7	CO flow gages (2)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	206.0	\$ 35.87	\$ 7,389.84	33.50%	\$ 2,475.60	206.0	\$ 36.59	\$ 7,537.63	33.50%	\$ 2,525.11
8	CO flow gages (2)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	146.0	\$ 24.24	\$ 3,539.23	35.00%	\$ 1,238.73	146.0	\$ 24.73	\$ 3,610.02	35.00%	\$ 1,263.51
9	CO Temp gages (1)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	30.0	\$ 35.87	\$ 1,076.19	33.50%	\$ 360.52	30.0	\$ 36.59	\$ 1,097.71	33.50%	\$ 367.73
10	CO Temp gages (1)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	20.0	\$ 24.24	\$ 484.83	35.00%	\$ 169.69	20.0	\$ 24.73	\$ 494.52	35.00%	\$ 173.08
11	SEO gage (1)	State of CO not Fed				\$ 30.00	80.0	\$ 31.21	\$ 2,496.96	0.00%	\$ -	80.0	\$ 31.84	\$ 2,546.90	0.00%	\$ -
12						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
13						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
14						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
15						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
16						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
17						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
18						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
19						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
20						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
21						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
22						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
23						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
24						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
25						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
26						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
27						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
28						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
29						\$ -	-	\$ -	\$ -	0.00%	\$ -	-	\$ -	\$ -	0.00%	\$ -
							<b>1,745.50</b>		<b>\$ 54,269.92</b>		<b>\$ 17,593.20</b>	<b>1,745.50</b>		<b>\$ 55,355.32</b>		<b>\$ 17,945.07</b>

# SUMMARY OF DIRECT LABOR & FRINGE BENEFIT

Yr 5 Escalation Rate	2.00%
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							YEAR 5							
							9/30/2024		Through	9/29/2025				
Task # or Description	Position Title	GS/WG Grade	GS/WG Step	OPM Pay Location	Current Hourly Rate	# of Hours	Hourly Rate	Salary Cost	Fringe Rate	Fringe Cost	Total Salary Cost	Total Fringe Cost	Total Labor Cost	
1	UT flow gages (5)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	500.0	\$ 37.32	\$ 18,661.13	33.50%	\$ 6,251.48	\$ 89,717.65	\$ 29,881.29	\$ 119,598.94
2	UT flow gages (5)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	350.0	\$ 25.22	\$ 8,827.23	35.00%	\$ 3,089.53	\$ 42,438.95	\$ 14,853.63	\$ 57,292.58
3	Price R flow gage (1)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	140.0	\$ 37.32	\$ 5,225.12	33.50%	\$ 1,750.41	\$ 25,120.94	\$ 8,366.76	\$ 33,487.70
4	Price R flow gage (1)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	85.0	\$ 25.22	\$ 2,143.76	35.00%	\$ 750.31	\$ 10,306.60	\$ 3,607.31	\$ 13,913.91
5	UT temp gages (3.25)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	104.0	\$ 37.32	\$ 3,881.52	33.50%	\$ 1,300.31	\$ 18,661.27	\$ 6,215.31	\$ 24,876.58
6	UT temp gages (3.25)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	84.5	\$ 25.22	\$ 2,131.15	35.00%	\$ 745.90	\$ 10,245.97	\$ 3,586.09	\$ 13,832.07
7	CO flow gages (2)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	206.0	\$ 37.32	\$ 7,688.39	33.50%	\$ 2,575.61	\$ 36,963.67	\$ 12,311.09	\$ 49,274.76
8	CO flow gages (2)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	146.0	\$ 25.22	\$ 3,682.22	35.00%	\$ 1,288.78	\$ 17,703.10	\$ 6,196.09	\$ 23,899.19
9	CO Temp gages (1)	Hydrotech	GS-11	5	Rest of US	\$ 34.48	30.0	\$ 37.32	\$ 1,119.67	33.50%	\$ 375.09	\$ 5,383.06	\$ 1,792.88	\$ 7,175.94
10	CO Temp gages (1)	Hydrotech	GS-7	5	Rest of US	\$ 23.30	20.0	\$ 25.22	\$ 504.41	35.00%	\$ 176.54	\$ 2,425.08	\$ 848.78	\$ 3,273.86
11	SEO gage (1)	State of CO not Fed				\$ 30.00	80.0	\$ 32.47	\$ 2,597.84	0.00%	\$ -	\$ 12,729.70	\$ -	\$ 12,729.70
12						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
13						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
14						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
15						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
16						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
17						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
18						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
19						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
20						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
21						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
22						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
23						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
24						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
25						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
26						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
27						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
28						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
29						\$ -	-	\$ -	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -
							<b>1,745.50</b>		<b>\$ 56,462.42</b>		<b>\$ 18,303.97</b>	<b>\$ 271,696.01</b>	<b>\$ 87,659.23</b>	<b>\$ 359,355.23</b>

# SUMMARY OF TRAVEL COSTS

Cost Element	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
<b>Trip #</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
<b>From-To</b>	Field Office to Gage Sites	Field Office to Gage Sites	Field Office to Gage Sites	Field Office to Gage Sites	Field Office to Gage Sites	
<b>Reason</b>	monthly stream flow	monthly stream flow	monthly stream flow	monthly stream flow	monthly stream flow	
<b># of Days (include travel days)</b>	29	29	29	29	29	
<b>Airfare</b>						
<b>Lodging (Per Night)</b>	\$ 70.00	\$ 71.40	\$ 72.83	\$ 74.28	\$ 75.77	
<b>MI&amp;E Per Day</b>	\$ 50.00	\$ 51.00	\$ 52.02	\$ 53.06	\$ 54.12	
<b>Auto Rental Per Day</b>						
<b>Total Per Trip</b>	<b>\$ 3,455.00</b>	<b>\$ 3,524.10</b>	<b>\$ 3,594.58</b>	<b>\$ 3,666.47</b>	<b>\$ 3,739.80</b>	
<b>No. of persons</b>	1	1	1	1	1	
<b>SUBTOTAL =</b>	<b>\$ 3,455.00</b>	<b>\$ 3,524.10</b>	<b>\$ 3,594.58</b>	<b>\$ 3,666.47</b>	<b>\$ 3,739.80</b>	<b>\$ 17,979.96</b>



# SUMMARY OF EQUIPMENT COSTS

## SUMMARY OF EQUIPMENT

Enter Escalation Rates ----->

Yr 2 Escalation Rate

2.00%

Yr 3 Escalation Rate

2.25%

Task # or Description	Item Description	Rationale for Proposed Cost	Year 1			Year 2			Year 3			
			Unit Price	Unit Quantity	Subtotal	Unit Price	Unit Quantity	Subtotal	Unit Price	Unit Quantity	Subtotal	
1	UT flow gages (5)	Stream gage replacement equip	Price based on historical purchases	\$ 1,530.00	5	\$ 7,650.00	\$ 1,560.60	5	\$ 7,803.00	\$ 1,595.71	5	\$ 7,978.57
2	UT flow gages (5)	Vehicles	Annual share of Vehicle Rate + Use charges	\$ 810.00	5	\$ 4,050.00	\$ 826.20	5	\$ 4,131.00	\$ 844.79	5	\$ 4,223.95
3	Price R flow gage (1)	Stream gage replacement equip	Price based on historical purchases	\$ 1,800.00	1	\$ 1,800.00	\$ 1,836.00	1	\$ 1,836.00	\$ 1,877.31	1	\$ 1,877.31
4	Price R flow gage (1)	Vehicles	Annual share of Vehicle Rate + Use charges	\$ 1,000.00	1	\$ 1,000.00	\$ 1,020.00	1	\$ 1,020.00	\$ 1,042.95	1	\$ 1,042.95
5	UT temp gages (3.25)	Stream gage replacement equip	Price based on historical purchases	\$ 500.00	3	\$ 1,500.00	\$ 510.00	3	\$ 1,530.00	\$ 521.48	3	\$ 1,564.43
6	UT temp gages (3.25)	Vehicles	Annual share of Vehicle Rate + Use charges	\$ 200.00	3	\$ 600.00	\$ 204.00	3	\$ 612.00	\$ 208.59	3	\$ 625.77
7	CO flow gages (2)	Stream gage replacement equip	Price based on historical purchases	\$ 1,500.00	2	\$ 3,000.00	\$ 1,530.00	2	\$ 3,060.00	\$ 1,564.43	2	\$ 3,128.85
8	CO flow gages (2)	Vehicles	Annual share of Vehicle Rate + Use charges	\$ 825.00	2	\$ 1,650.00	\$ 841.50	2	\$ 1,683.00	\$ 860.43	2	\$ 1,720.87
9	CO Temp gages (1)	Stream gage replacement equip	Price based on historical purchases	\$ 425.00	1	\$ 425.00	\$ 433.50	1	\$ 433.50	\$ 443.25	1	\$ 443.25
10	CO Temp gages (1)	Vehicles	Annual share of Vehicle Rate + Use charges	\$ 200.00	1	\$ 200.00	\$ 204.00	1	\$ 204.00	\$ 208.59	1	\$ 208.59
11	SEO gage (1)	Stream gage replacement equip	Price based on historical purchases	\$ 500.00	1	\$ 500.00	\$ 510.00	1	\$ 510.00	\$ 521.48	1	\$ 521.48
12	SEO gage (1)	Vehicles	Annual share of Vehicle Rate + Use charges	\$ 400.00	1	\$ 400.00	\$ 408.00	1	\$ 408.00	\$ 417.18	1	\$ 417.18
13				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
14				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
15				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
16				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
17				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
18				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
19				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
20				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
21				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
22				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
23				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
24				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
25				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
26				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
27				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
28				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
29				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
30				\$ -	0	\$ -	\$ -	0	\$ -	\$ -	0	\$ -
<b>TOTAL:</b>					<b>\$ 22,775.00</b>			<b>\$ 23,230.50</b>			<b>\$ 23,753.19</b>	

# SUMMARY OF EQUIPMENT COSTS

<b>SUMMARY OF EQU</b>	Yr 4 Escalation Rate	1.75%	Yr 5 Escalation Rate	1.00%
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	Task # or Description	Item Description	Year 4			Year 5			TOTAL	
			Unit Price	Unit Quantity	Subtotal	Unit Price	Unit Quantity	Subtotal		
1	UT flow gages (5)	Stream gage replacement equip	\$ 1,623.64	5	\$ 8,118.19	\$ 1,639.87	5	\$ 8,199.37	\$ 39,749.13	
2	UT flow gages (5)	Vehicles	\$ 859.57	5	\$ 4,297.87	\$ 868.17	5	\$ 4,340.85	\$ 21,043.66	
3	Price R flow gage (1)	Stream gage replacement equip	\$ 1,910.16	1	\$ 1,910.16	\$ 1,929.26	1	\$ 1,929.26	\$ 9,352.74	
4	Price R flow gage (1)	Vehicles	\$ 1,061.20	1	\$ 1,061.20	\$ 1,071.81	1	\$ 1,071.81	\$ 5,195.97	
5	UT temp gages (3.25)	Stream gage replacement equip	\$ 530.60	3	\$ 1,591.80	\$ 535.91	3	\$ 1,607.72	\$ 7,793.95	
6	UT temp gages (3.25)	Vehicles	\$ 212.24	3	\$ 636.72	\$ 214.36	3	\$ 643.09	\$ 3,117.58	
7	CO flow gages (2)	Stream gage replacement equip	\$ 1,591.80	2	\$ 3,183.60	\$ 1,607.72	2	\$ 3,215.44	\$ 15,587.90	
8	CO flow gages (2)	Vehicles	\$ 875.49	2	\$ 1,750.98	\$ 884.25	2	\$ 1,768.49	\$ 8,573.34	
9	CO Temp gages (1)	Stream gage replacement equip	\$ 451.01	1	\$ 451.01	\$ 455.52	1	\$ 455.52	\$ 2,208.29	
10	CO Temp gages (1)	Vehicles	\$ 212.24	1	\$ 212.24	\$ 214.36	1	\$ 214.36	\$ 1,039.19	
11	SEO gage (1)	Stream gage replacement equip	\$ 530.60	1	\$ 530.60	\$ 535.91	1	\$ 535.91	\$ 2,597.98	
12	SEO gage (1)	Vehicles	\$ 424.48	1	\$ 424.48	\$ 428.73	1	\$ 428.73	\$ 2,078.39	
13			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
14			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
15			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
16			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
17			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
18			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
19			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
20			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
21			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
22			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
23			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
24			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
25			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
26			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
27			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
28			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
29			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
30			\$ -	0	\$ -	\$ -	0	\$ -	\$ -	
					<b>\$ 24,168.87</b>				<b>\$ 24,410.56</b>	<b>\$ 118,338.11</b>