# Idaho Dept of Water Resources
## ESPA Spring Diversion Inventory

**District** 36A **Date** _____

**Basin** 36 **Ditch or users association** _____

**Diversion Name** Hunt Ditch **POD Number** _____

**Spring Name** Riley Creek **Tributary to** _____

**GPS site ID** A0001586 **Inventory Examiner** _____

**Owner** Dan Yore/Buckeye Ranch **Operator** _____

| **Measuring Device Data** | | | |
|---|---|---|---|
| Type of Device or Method | Orifice, Submerged | Standard | Non-standard |
| If non-standard describe: see file | | | |

| **Discharge and Measurement Method** | |
|---|---|
| How Measurement was taken:<br>(Staff gauge, current meter, polysonic meter) | |
| Staff gauge Head Reading | Current Meter/or poly-sonic measurement: |
| Time of Day | |
| Table used for Q | Meter Measurement Confidence<br>2% 5% 10% +10% |
| **Total Flow =** | Does device meet IDWR standards?<br>YES NO |
| Discharge notes attached? YES NO | Measurement Taken by: |
| Calculations Attached? YES NO | Is follow-up Needed? YES NO |

**Concerns about measuring device:** _____

Current meter measurement

Site: Hunt Ditch
Date: 7/16/2004
WMIS ID:
Source: Riley Creek

Staff gage readings: feet @
feet @

Meter type: Submerged orifice
Weir Length: NA feet
Rating curve:
Meter discharge: ft^3/s

Measured in north ditch and south ditch approximately 200 feet upstream of weir

| | Distance feet | Depth feet | Obs Depth | Velocity ft/sec | Width feet | Area ft^2 | Discharge ft^3/s |
|---|---|---|---|---|---|---|---|
| LEW | 2.5 | 0.00 | | | 0.25 | | |
| | 3.0 | 0.45 | 0.6 | 0.43 | 0.75 | 0.3375 | 0.145125 |
| | 4.0 | 0.80 | 0.6 | 0.92 | 1 | 0.8 | 0.736 |
| | 5.0 | 1.05 | 0.6 | 1.51 | 1 | 1.05 | 1.5855 |
| | 6.0 | 1.50 | 0.6 | 1.70 | 1 | 1.5 | 2.55 |
| | 7.0 | 1.75 | 0.6 | 1.94 | 1 | 1.75 | 3.395 |
| | 8.0 | 1.85 | 0.6 | 2.15 | 1 | 1.85 | 3.9775 |
| | 9.0 | 1.85 | 0.6 | 2.29 | 1 | 1.85 | 4.2365 |
| | 10.0 | 1.80 | 0.6 | 2.18 | 1 | 1.8 | 3.924 |
| | 11.0 | 1.70 | 0.6 | 2.04 | 1 | 1.7 | 3.468 |
| | 12.0 | 1.35 | 0.6 | 0.74 | 0.75 | 1.0125 | 0.74925 |
| REW | 12.5 | 0.00 | | | 0.25 | | |
| Total | | | | | 10 | 13.65 | 24.77 |
| Error | | | | | | | -100.0% |

Average Velocity = 1.81 ft/sec

STATE OF IDAHO

DEPARTMENT OF WATER RESOURCES

Water District

**DISCHARGE MEASUREMENT NOTES**

Meas. No. 2

Comp. by JB

Checked by JB

Sta. No. Hunt Ditch

Date 7/16/2004 Party C. Knowles/J. Berkey

Width 10.0 Area 13.7 ' Vel. 1.81 G. H. _____ Disch. 24.8

Method _____ No. secs. _____ G. H. change _____ in _____ hrs. Susp. _____

Method coef. _____ Hor. angle coef. _____ Susp. coef. _____ Meter No. _____

| GAGE READINGS | | | | |
|---|---|---|---|---|
| Time | | Recorder | Inside | Outside |
| | | | | |
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| | | | | |
| Weighted M. G. H. | | | | |
| G. H. correction | | | | |
| Correct M. G. H. | | | | |

Type of meter _____

Date rated _____ for rod, other.

Meter _____ ft. above bottom of weight.

Spin before meas. 318 after 312

Meas. plots ____ % diff. from rating _____

Wading, cable, ice, boat, upstr., downstr., side bridge 100 (feet) mile, above, (below) ~~gage and~~ Hwy 30 bridge

Check-bar, found _____

changed to _____ at _____

Correct _____

Levels obtained _____

Measurement rated excellent (2%), good (5%), fair (8%), poor (over 8%), based on following conditions: Cross section _____

Flow 24.8 cfs Weather _____

Other _____ Air _____°F@ _____

Gage _____ Water _____°F@ _____

_____ Record removed _____ Intake flushed U

Observer _____

_____

Control _____

_____

Remarks Stem height @ HG 1.10 ft above header plate

Look up orifice rating table — 0.84 ft above top of nut @ 11:50 AM

G. H. of zero flow _____ ft. finish measurement @ 12:28 PM

apparently stem ht − 1.5 in = opening

∴ orifice ht = 0.975 ft ; did not measure head

.0 .10 .20 .30 .40 .50 .60 .70 .75

River at—

| Angle coefficient | Dist. from initial point | Width | Depth | Observation depth | Revolutions | Time in seconds | VELOCITY: At point | VELOCITY: Mean in vertical | Adjusted for hor. angle or ..... | Area | Discharge | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LEW | 2.5 | 0.25 | 0 | | | | | | | | | .80 |
| | 3.0 | 0.75 | 0.45 | 0.6 | | | 0.43 | | | 0.34 | 0.146 | .85 |
| | 4.0 | 1.0 | 0.80 | 0.6 | | | 0.92 | | | 0.80 | 0.736 | |
| | 5.0 | 1.0 | 1.05 | 0.6 | | | 1.51 | | | 1.05 | 1.586 | |
| | 6.0 | 1.0 | 1.50 | 0.6 | | | 1.70 | | | 1.50 | 2.550 | .90 |
| | ~~7.0~~ | ~~1.~~ | ~~1.75~~ | ~~0.6~~ | | | ~~1.63~~ 1.94 | | | ~~1.~~ | | .92 |
| | 7.0 | 1.0 | 1.75 | 0.6 | | | 1.94 | | | 1.75 | 3.395 | .94 |
| | 8.0 | 1.0 | 1.85 | 0.6 | | | 2.15 | | | 1.85 | 3.978 | |
| | 9.0 | 1.0 | 1.85 | 0.6 | | | 2.29 | | | 1.85 | 4.237 | .96 |
| | 10.0 | 1.0 | 1.80 | 0.6 | | | 2.18 | | | 1.80 | 3.924 | .97 |
| | 11.0 | 1.0 | 1.70 | 0.6 | | | 2.04 | | | 1.70 | 3.468 | .98 |
| | 12.0 | 0.75 | 1.35 | 0.6 | | | 0.74 | | | 1.01 | 0.747 | .99 |
| REW | 12.5 | | | | | | | | | | 24.77 | |
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| ⊙ | | | | | | | | | | | | 1.00 |
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.0 .10 .20 .30 .40 .50 .60 .70 .75