

Some Bear Springs Canals

Preliminary Field Notes

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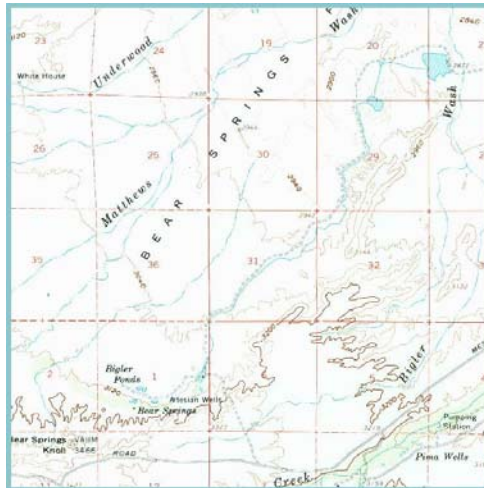
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Bear Springs is a major and reliable arid region **artesian** aquifer on **Arizona State Lands** at **N 32.84969 W 109.94507** that once supported a hippy commune and stock ponds. While understudied to date owing to access issues and priorities, at least three historic canals are associated with this resource.

A key question is whether the known canals have prehistoric precedents. Given that the known prehistoric **Sand Canal** is within a mile and that dozens of other proven prehistoric canals are in the reasonably nearby vicinity, **it would appear exceptionally unlikely that such a significant and unique water resource would have been ignored.** Yet, definitive age proof still remains lacking to data.

One good source for Bear Springs info is this **historic 1960 USGS map...**



The largest of the three Bear Canyon canals disappeared from the topo maps long ago. The historical construct started from artesian sources at **N 32.85158 W 109.93849** and delivered to three ponds near **N 32.88968 W 109.91163**, a distance of 5 miles or 8 kilometers.

Elevations varied from 3160 down to 2900 feet. The historic construct or its rebuild was quite large with a two meter cross section. Construction appeared to involve **Gradeall** class mechanics and clearly was not in the least energy efficient.

Portions of the route are hard to follow, owing to abandonment and erosion. The general route is somewhat to the east of an also disused 4WD maint track. A northern approach is often more accessible.

While the end cattle tank at **N 32.88968 W 109.91163** included a dam and a spillway, the three pond sizes and arrangement are somewhat suggestive of prehistoric field origins.

The Bigler Canal is a second Bear Springs area resource that seems much more likely to include remnant prehistoric technology, size, and energy efficiency...



This one routes from **N 32.85200 W 109.93843** to **N 32.85185 W 109.94869**, a distance of 0.6 miles or 1.0 kilometers, with an elevation range of 3180 to 3160 feet. It is sourced by artesian wells and delivers to a pair of Bigler Ponds, one of which is disused.

This canal flows to this day. Portions are remarkably pristine and appear quite compatible with a prehistoric origin. As before, definitive proof of age still remains lacking. No other area artesian source is known of comparable size and multiple origins. Area archaeological surveys for potsherds and such have not yet been completed, nor have any site surveys been located to date.

The Bear Flat canal is somewhat further west and reached via a rough 4WD track near Bear Springs Knoll. It sources from a single artesian well at **N 32.85790 W 109.96120** and delivers to an apparent field at **N 32.85985 W 109.95839**. The distance is 0.6 miles or 0.36 kilometers. Elevations range from 3080 to 3070 feet.

Except for a beginning standpipe and an an ending modern but abandoned structure, the canal route appears apparently unmodified from a candidate prehistoric origin. Energy efficiency and 30 cm width and lack of significant historic improvements seem as expected...



The canal was recently flowing, but since has become a candidate for extreme drought conditions.

There are huge and highly enigmatic areas northeast of the Bear Flat Canal suggestive of long failed ag ventures, probably owing to dramatically lowered water tables. **Acme Mapper** shows several possible traces that could be either cowpaths or canal routes that may or may not have prehistoric origins. One typical example can be found at **N 32.89546 W 109.93751**.

This entire area seems suitable for drone or ATV survey and definitely merits new study. Climatic reconstruction is another possibility.

Some observed features of the prehistoric NW Canals include...

- N 32.81496 W 109.84920** Main artesian area and one time commune.
- N 32.85875 W 109.93513** Typical canal and maint road routing.
- N 32.85875 W 109.93513** Continuance of canal and maint road.
- N 32.88931 W 109.91178** Triple destination ponds and possible fields.
- N 32.81496 W 109.84920** Start of Bigler Canal in artesian area.
- N 32.85168 W 109.94259** Water route simply goes down the road here.
- N 32.85061 W 109.94605** Mid reach of Bigler Canal.
- N 32.85190 W 109.94840** Bigler ponds destination.
- N 32.85790 W 109.96120** Bear Flat canal artesian standpipe source.
- N 32.85880 W 109.96025** Mid reach of Bear Flat canal.
- N 32.85985 W 109.95839** Possible Bear Flat destination field.

Further Bear Springs Canal work might include...

- 1** — Resolve access road and visitation issues.
- 2** — Droning, videotaping, and photos of the known explored portion.
- 3** — Expand search for prehistoric evidence.
- 4** — Explore historical records for ownership and use.
- 5** — Seek out distribution of potsherds and other cultural evidence.
- 6** — Evaluate drought and climatic issues.
- 7** — Use drone or ATV to explore northern ag sites.

More Hanging Canal Resources: <http://www.tinaja.com/tinsamp1.shtml>
New Hanging Canal Developments: <http://www.tinaja.com/whtnu15.shtml>