STANDARD FORM 2015-1 (06/2015)

SUBMISSION OF WATER DEVELOPMENT PROJECTS

FOR AGENCY USE ONLY

Through the development of scientific studies defining the aquifer within the Cedar Basin it has been documented that additional water resources will be necessary to sustain the growth and further development of the area. Without water for the future economic development will be impacted by the availability and cost of existing water supplies to accommodate only the growth capable within our current water budget. This template is being developed for the purpose of helping to document additional water supply sources that could be utilized to further alleviate the deficit of water that we currently have and provide water for the future residents of the valley. This form will be evaluated for completeness of content. Please ensure that the proposed project is fully defined and information to substantiate the claim is submitted for a complete evaluation.

Application Number

Date Filed

Name and address of applicant (*include zip code)*	Name, title, and address of authorized agent if different from item 1 *(include zip code)*	Telephone (area code)
Central Iron County Water Conservancy District 88 E. Fiddlers Canyon Rd. Suite A Cedar City, Utah 84721		Applicant Authorized Agent

A. Provide names, addresses, phone numbers and email addresses of those who filled out this form.
Kelly Crane, PE, District Engineer, Ensign Engineering and Land Surveying, 1870 North Main Street, Suite 104, Cedar City, Utah 84721, 435-865-1453
Paul Monroe, General Manager, CICWCD, 88 E. Fiddlers Canyon Rd. Suite A, Cedar City, Utah 84721, 435-865-9901

B. Project Description (Details are Vital)

1. Scope of Work and Project Description
2. Type of System or Facility
3. Quantity of Water Anticipated
4. Scientific Analysis of Water Resource
5. Uses (irrigation, culinary, industrial etc.)
6. Years Resource is Available
7. Constructability
8. Additional information to describe resource and availability (utilize additional sheets as necessary)

Scope of Work – West Desert Pipeline

The Central Iron County Water Conservancy District owns water rights in Utah's West Desert. The water rights are located in two valleys; Pine Valley and Wah Wah Valley in the amount of 15,000 acre-feet in Pine and 6,525 acre-feet in Wah Wah. Also, CICWCD has an application to appropriate further water rights in Hamlin Valley for the amount of 10,000 acre-feet but this right has not been approved. CICWCD will construct multiple wells throughout the valleys to pump the water into smaller transmission pipelines to pumphouses. Then larger transmission pipelines will import the water into the Cedar Valley Basin. Test wells will be drilled first to determine the capacity of the aquifer and the effect of the wells in the area. Once the test wells and capacity tests have been done, permanent production wells will be drilled and put into service.

CICWCD is working through the feasibility of having solar and wind supply power to these sites instead of constructing and implementing power lines. The cost and expense may be higher in the beginning to rely on renewable energy but the operation and maintenance of the wells will be much lower.

The project will help alleviate the over drawing and mining of the aquifer in the Cedar Valley Basin. Wells that supply water to CICWCD and Cedar City can be placed on idle and water from the West Desert can supply the required water for municipal use. Any excess water from the West Desert will be placed in storage and used for recharge and recovery.

Type of System or Facility

The West Desert project includes the drilling of multiple wells, construction of wellhouses, construction of pumphouses, construction of transmission pipelines, and construction of solar and wind power sources.

Quantity of Water Anticipated

CICWCD owns 21,525 acre-feet of water right within the two valleys. 15,000 acre-feet in Pine Valley and 6,525 acre-feet in Wah Wah Valley.

Scientific Analysis of Water Resource

Test pumping was done in 2014 in Pine and Wah Wah Valleys to determine the stability of the aquifer. Based on these tests, the Sate Engineer allocated water rights to CICWCD for use in the Cedar Valley Basin. CICWCD is also in the application process with the BLM to drill 24 test wells throughout the south end of Pine Valley.

Water quality has not been tested but will be done when test holes are drilled.

Uses

The water from this project will be used to supply the CICWCD system for municipal and irrigation uses.

Years Resource is Available

The water resource will be available annually.

Constructability

The wells and pipelines will be constructed mainly on BLM property and CICWCD is going through the preliminary application process. BLM agrees with the project and has implemented corridors for pipelines in its regional master plan. Funding for the project will be received from state monies and bonds. Coordination and cooperation for local communities will be necessary.

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C. Attach a map covering the area of development and location of proposed project.

1. Identify Property Ownership
2. Identify Potential Conflicts
3. Provide Details of the Area and Necessary Changes to the Area
   See Attached Exhibits

D. Identify any Federal, State or Local Government Issues

1. Federal
   a. Army Corp of Engineers
   b. Bureau of Land Management
   c. Fish and Wildlife
   d. Forest Service
   e. Other

   Bureau of Land Management - The project will be constructed on BLM land. This has been made known to them and the corridors for pipelines has been added to their regional management plan. The concern they have brough forth was that of endagered species habitat, breeding periods for wildlife, and migration of wildlife. Coordination has begun on the test well development and the current well sites in Pine Valley have been located and are in areas of no concern.

2. State
   a. Department of Environmental Quality
   b. Division of Water Rights
   c. Other

   Division of Water Rights would need to be in cooperation to locate new point of diversion for the water rights.

3. Local
   a. County
   b. Municipal
   c. Other

   Beaver County and Iron County will need to work with CICWCD for permitting of pipelines along roadways and for construction permits. Coordination with Cedar City and Enoch City will help with the cost of the project as well as help restore aquifer levels throughout the Cedar Basin Valley as water is utilized from the West Desert rather than from the aquifer.

E. Provide cost estimates of project

The cost for the construction of the wells and pipelines from Pine Valley is estimated to be $150,000,000. When Wah Wah Valley is added as a distributor to the pipeline it is estimated to cost $50,000,000.

F. Describe additional evaluated alternatives, if any

Lake Powell pipeline was the first alternative to stabilizing and restoring the aquifer levels in the Cedar Valley Basin Aquifer. Due to the cost and lack of support from local communities, Iron County and CICWCD withdrew from the project

G. Describe any environmental effects the proposed project would have on wildlife and/or plant species

Construction of the wells and pipelines will need to be done in accordance with what is required by the BLM. These include endagered species habitats, breeding areas, and migration sites. There will be time restraints of when construction can occur as to not disturb wildlife. Also, re-vegetation will be required and coordinated with BLM.

H. Provide cultural resource evaluations of proposed area

A cultural survey will be completed prior to construction of the pipelines and wellhouses. This will need to be done in accordance to BLM as well as any funding receeived.

I. Provide any additional information deemed necessary in the evaluation of this project to provide future sustainable water resources to the Cedar Basin

Adding these wells will help alleviate the draw from the existing wells, and help to balance the amount of water drawn from the Cedar Valley Basin aquifer. Also, this will provide a sustainable source to Cedar City and Enoch City for future growth that can save money from having to drill new wells or deepen existing wells.

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Legend

Corridor Center Line

- Lund Highway Corridor
- Lund Highway Corridor Alternate (Midvalley Road)
- Pine Valley Corridor CL
- Pine Valley Supply Line Corridor
- Railroad Corridor
- Railroad Corridor Alternate
- Wah Wah Valley Alternate 1 Corridor CL
- Wah Wah Valley Alternate 2 Corridor CL
- Wah Wah Valley Alternate 3 Corridor CL
- Wah Wah Valley Supply Line Corridor

0 6,500 13,000 26,000 39,000 52,000 Feet

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TOOELE
Phone 435.843.3590

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FOR:
CLIENT
ADDRESS
CITY, STATE ZIP

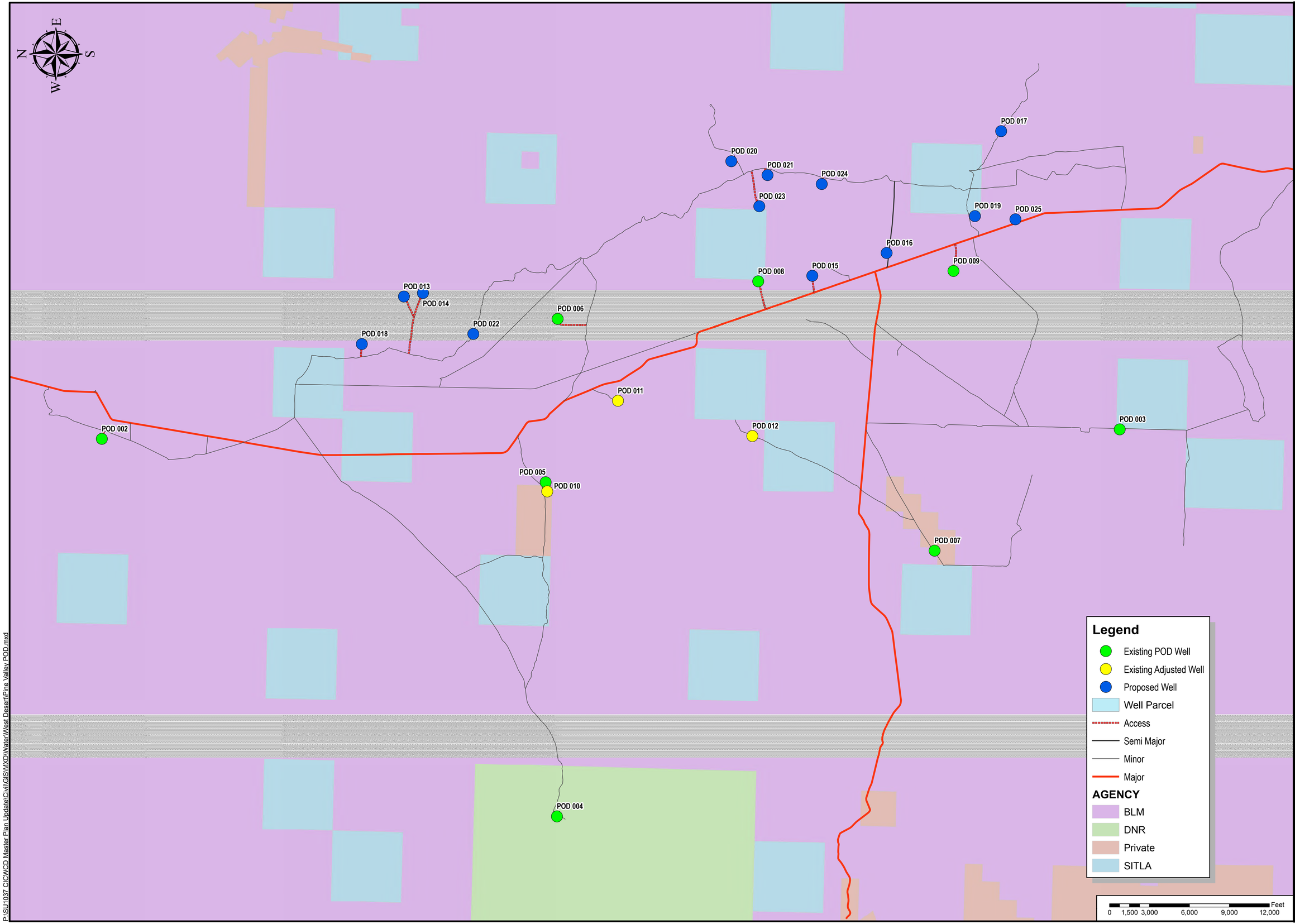
CONTACT:
NAME
PHONE
FAX

CENTRAL IRON COUNTY WCD
WEST DESERT ALIGNMENTS
MAY 2014

BLM CORRIDORS

PROJECT NUMBER: 540A
PRINT DATE: 9/1/2015
DRAWN BY: JTN
CHECKED BY: CLN
PROJECT MANAGER: CLN

C-001



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CENTRAL IRON COUNTY WCD
PINE VALLEY
APRIL 2015

EXISTING & PROPOSED WELL LOCATIONS

PROJECT NUMBER: SU1037
PRINT DATE: 9/1/2015
DRAWN BY: JTN
CHECKED BY: CLN
PROJECT MANAGER: CLN

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