

# Option Submittal Form

Contact Information (optional):

Keep my contact information private

Contact Name: _____	Title: _____
Affiliation: _____	
Address: _____	
Telephone: _____	E-mail Address: _____

Date Option Submitted: \_\_\_\_\_

Option Name:

Reform of Gas and Oil Industry
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Description of Option:

The gas industry is wreaking havoc on surface and groundwater resources across the west. In the Raton Basin where I live, over 16,000 acre feet of produced water is pumped out of the ground annually. This saline and potentially contaminated groundwater is then dumped into the live waters of the state or deep injected if it is exceptionally nasty. In either event, its contribution to the watershed is negative and or deleterious.

Two studies have been done in our area that both conclude that streams and rivers will experience reduced flows in the future due to the massive scale water withdrawals being done now. The water table is being negatively affected. Domestic water wells have been impacted and many that have been reliable producers for decades are running dry.

Produced water must be cleaned up to potable standards and injected into the shallow domestic aquifers currently being impacted.

**Location:** Describe location(s) where option could be implemented and other areas that the option would affect, if applicable. Attach a map, if applicable.

I can only state what is happening in my neighborhood, but I assume these problems accompany extractive energy development everywhere it is being done.
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**Quantity and Timing:** Roughly quantify the range of the potential amount of water that the option could provide over the next 50 years and in what timeframe that amount could be available. If option could be implemented in phases, include quantity estimates associated with each phase. If known, specify any important seasonal (e.g., more water could be available in winter) and/or frequency (e.g., more water could likely be available during above-average hydrologic years) considerations. If known, describe any key assumptions made in order to quantify the potential amount.

I don't know. Something must be done now or we may find our water issues to be greatly exacerbated in the future.
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## Additional Information

**Technical Feasibility:** Describe the maturity and feasibility of the concept/technology being proposed, and what research and/or technological development might first be needed.

All of it is here and now; it simply requires the will to implement it. The cost of implementation must be born by the extractive energy companies, and ultimately the people who use it.

**Costs:** Provide cost and funding information, if available, including capital, operations, maintenance, repair, replacement, and any other costs and sources of funds (e.g., public, private, or both public and private). Identify what is and is not included in the provided cost numbers and provide references used for cost justification. Methodologies for calculating unit costs (e.g., \$/acre-foot or \$/million gallons) vary widely; therefore, do not provide unit costs without also providing the assumed capital and annual costs for the option, and the methodology used to calculate unit costs.

I suspect it would be variable, depending on how nasty the water is that needs to be cleaned up. The cost of continuing on with business as usual, extracting and wasting massive quantities of this precious resource is far greater.

**Permitting:** List the permits and/or approvals required and status of any permits and/or approvals received.

Don't know

**Legal / Public Policy Considerations:** Describe legal/public policy considerations associated with the option. Describe any agreements necessary for implementation and any potential water rights issues, if known.

In the case of most western states, it will require significant legislation and a protracted battle against a powerful and entrenched industry. For starters, the industry must be forced to comply with common sense federal protections such as the Clean Water Act and Safe Drinking Water Act, from which they are currently exempted.

**Implementation Risk / Uncertainty:** Describe any aspects of the option that involves risk or uncertainty related to implementing the option.

The oil and gas industry pretty much owns the current political machine. It may not be possible to overcome opposition.

**Reliability:** Describe the anticipated reliability of the option and any known risks to supply or demand, such as: drought risk, water contamination risk, risk of infrastructure failure, etc.

Pretty darn reliable I should think. Water flows downhill. People demand fossil energy and will pay as much for it as necessary to get it. It will likely encourage energy conservation as an added benefit.

**Water Quality:** Identify key water quality implications (salinity and other constituents) associated with the option in all of the locations the option may affect.

The very saline waste water remaining after the process must be disposed of. The volume should be less than that currently disposed of via deep injection.

**Energy Needs:** Describe, and quantify if known, the energy needs associated with the option. Include any energy required to obtain, treat, and deliver the water to the defined location at the defined quality.

Energy Required	Source(s) of Energy
Electricity	I would suggest renewable sources

**Hydroelectric Energy Generation:** Describe, and quantify if known, any anticipated increases or decreases in hydroelectric energy generation as a result of the option.

Location of Generation	Impact to Generation
N/A	

**Recreation:** Describe any anticipated positive or negative effects on recreation.

Locations	Anticipate Benefits or Impacts
streams, rivers, riparian areas, domestic water wells	more water/less impacts = more/better recreation

**Environment:** Describe any anticipated positive or negative effects on ecosystems within or outside of the Colorado River Basin.

Locations	Anticipated Benefits or Impacts
Everywhere	Reduced environmental impacts

**Socioeconomics:** Describe anticipated positive or negative socioeconomic (social and economic factors) effects.

Overall positive: It not only increases available water resources and all that implies, but also creates manifold employment opportunities.

**Other Information:** Provide other information as appropriate, including potential secondary benefits or considerations. Attach supporting documentation or references, if applicable.

There are many advantages to not destroying the world we inhabit.