

OFFSETS AND EJ IN THE CONTEXT OF REGION 5 SALINITY AND NITRATE MANAGEMENT

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Offsets have been used by regulators to provide dischargers a more cost-effective option for complying with mandated reductions of specific pollutants - generally where high costs or technological constraints present barriers to full compliance. The discharger is given the option of complying with the unmet portion of the reduction goal by paying for more cost-effective pollutant removal elsewhere. As an example, the AB32 program relies on offsets to meet its greenhouse gas reduction goals, and the Central Valley Board's Delta methylmercury TMDL is studying an offset plan which would begin in 2020 and allow dischargers to employ offsets to meet their load allocations.

The components of an effective and enforceable offset program are

- That the discharger make all reasonable efforts to meet water quality objectives through implementation of industry best practices;
- That the discharger demonstrate why additional reductions are not feasible;
- That the amount of pollution removal at the alternative site be equal to or greater than the amount of unmet reduction at the permitted site;
- That both the on-site and off-site reductions can be verified.

Common Environmental Justice Concerns

The most common EJ issue related to offsets is that the location for the off-site reduction program is seldom proximate to the site holding the permit. For example, in the case of reducing greenhouse gases, the Air Board allows polluting factories to continue their emissions unabated provided they pay to reduce emissions elsewhere. The communities living near those factories –which are disproportionately likely to be low-income communities of color – therefore receive little or no benefit from the program, because pollution continues to be permitted in their neighborhood.

Enforcement is another EJ issue, as the employment of offsets multiplies the number of sites that regulators must monitor to ensure that reductions actually occur. Any shortfalls in enforcement result in additional or continuing impacts from pollution.

An EJ issue relevant to this discussion is that offsets may not be assessed at a sufficient level to accomplish the goal of achieving water quality objectives, subjecting communities to high levels of contamination for a longer period of time.

Finally, an ongoing concern is that communities that are organized will receive assistance, while those that find out about their water quality and the program later will be out of luck because the money will be fully allocated. This is a common problem for low income communities of color and is one reason why many groups have advocated for some amount of funding to be set aside for disadvantaged communities.

Offsets under the CV Salts Program

Our understanding is that offsets in the context of CV Salts would allow farmers to address some portion of their nitrate reduction responsibilities by providing wellhead treatment to drinking water wells that exceed the nitrate standard. In a general sense, this seems like a good tradeoff – at-risk communities will get treatment they can't otherwise afford or obtain, and farmers will be able to maintain some cost certainty under the regulatory program. Several questions must be answered in order to determine whether or how this can be a feasible alternative.

1. What are the pollution reduction targets?

In a TMDL process, each discharger is assigned a load allocation that generally represents a reduction from their current discharges. In the Irrigated Lands Program, farms are required to meet the water quality objective for nitrogen (10ppm) in their discharges, but individual load allocations are neither assessed nor measured. Without that information, how can we identify reduction targets and potential offset requirements?

In addition, there is the issue of “legacy” pollution, nitrate contamination attributable to a party that is no longer in the picture. Should today's farmers be required to reduce their nitrate usage to help clean up pollution that they didn't cause? Under Porter-Cologne, the answer to that is yes.

Mercury is a good example of a legacy contaminant; the vast majority of the pollution occurred in the 19th century, and the responsible parties are long gone. But load allocations for mercury TMDLs are based on all current contamination in a water body – including legacy contamination- in order to ensure the achievement of water quality targets.

In order to move forward with this proposal, it would seem that some justifiable target would need to be selected. In the case of nitrates, the difference between the ILRP target and the remediation target might be an appropriate focus of an offsets program.

2. How would an offset program work?

In a typical offset program, a grower would be assigned a load allocation, and would contribute to an offset fund a dollar amount commensurate with the unmet portion of the mandated load reduction. The fund would be administered by the Board as the regulator of the program, and they would be responsible for dispersing the funds and ensuring that fees are set at a sufficient level to run the program.

Could the CV Salts organization run such a program? Potentially yes, with sufficient safeguards.

3. What are the pitfalls?

There are some major issues in contemplating such a program;

A. The program may not provide sufficient assistance to current or future residents who are disproportionately impacted by nitrate contamination.

1) If the program is merely a band-aid, it will not be able to keep up with the increasing number of impacted communities.

It's unclear what level of funding could or should be generated by this program. The \$20-\$36 million in annual costs assigned by the UC Davis nitrate report might be a good place to start in terms of need, as the authors attempted to estimate costs for residents served by both public water systems and private wells. On an individual community basis, a wellhead treatment unit for a small water system varies dramatically based upon water quality and the size of the community (smaller communities pay more per capita). Cost estimates of \$500-\$900 per acre-foot of water treated are common (an acre-foot would serve a family of five using about 175 gallon/person/day for one year).

As stated early, there is a concern is that charges assessed for nitrate discharges would be too low to provide anything close to the amount of assistance needed. Any offset program must allocate sufficient funds to meaningfully and substantially address nitrate-contaminated drinking water for this program to be worthwhile.

2) Identifying which communities should benefit will be difficult and could exacerbate the disproportionate impact of nitrate contamination.

If farmers are simply paying into a fund, it will be up to the water board to decide who gets this treatment subsidy and how much each community should receive.

The Tulare Basin pilot project demonstrates just how challenging it will be to identify impacted communities, much less help those that require assistance. Particularly challenging is the high number of rural residents served by state small systems or domestic wells; county records are generally inadequate to identify these, many (if not most) of these residents have no idea of their water quality, and an argument could be made that nitrate contamination in some of these wells is due to the residents' own septic systems rather than local agriculture.

B. The program will not reduce growers' regulatory burden or costs sufficiently to make participation worthwhile

The use of offsets is meant to provide a degree of both regulatory and cost certainty to the permit holder. However, it is very possible that the cost of an effective wellhead treatment program will be more expensive than implementing a higher level of best practices, in which case farmers would be unlikely to participate.

C. The program does not require adequate reductions in nitrate loading, allowing degradation to continue.

If nitrate levels continue to increase, more communities will be impacted. Will this program be flexible enough to allow the nitrate assessment to increase or nitrate targets to change to reflect actual changes in water quality and address changing community needs?

Potential Next Steps

1. Find or establish an appropriate fund for the purpose. Our organizations have advocated for the establishment of a Supplemental Environmental Program account within the Water Board for the purposes of funding nitrate mitigation efforts. This could house funds provided by ag as well as other sources. There has also been some discussion of establishing a regional water quality authority for areas of the valley impacted by nitrates, started with the Tulare Lake Basin. The advantage of establishing a separate fund is that it could potentially attract funding from a variety of sources - ag could serve as a catalyst for such an effort.
2. Make an initial financial commitment – set aside some amount of funding to test the theory.
3. Invest in a community – There are about 3 dozen Central Valley communities impacted by nitrates that have been identified as priorities for assistance by CDPH (and about twice as many with arsenic contamination). A partnership with Fresno's Water Institute, which is working with US EPA to develop a program to address small communities without safe water, might yield a pilot project.
4. Think about funding gaps. If you spend money where no other options exist, you earn more brownie points. Some examples would be funding Self-Help Enterprise's revolving loan fund for domestic well retrofits; providing grants or loans to communities that don't qualify for state funding because they're not a public water system; engaging a technical assistance circuit rider to provide as-needed services (engineering, water quality testing, mandatory reporting) to bring down community costs.
5. Discuss governance. If farmers were to provide funding for a mitigation bank, how would fees be assessed? Who should administer it? Who makes decisions on expenditures?
6. Identify data gaps. While information is readily available about most public water systems, there are significant gaps for residents in very small communities or those reliant on domestic wells.
7. Discuss eligibility criteria and funding levels. It is obviously not reasonable to subsidize every community with a nitrate contaminated well. Nor is it necessarily reasonable to limit the contaminants of concern to nitrates, since many communities are now struggling with arsenic contamination because a shallower well became contaminated with nitrate. These are tough questions that need to be discussed.