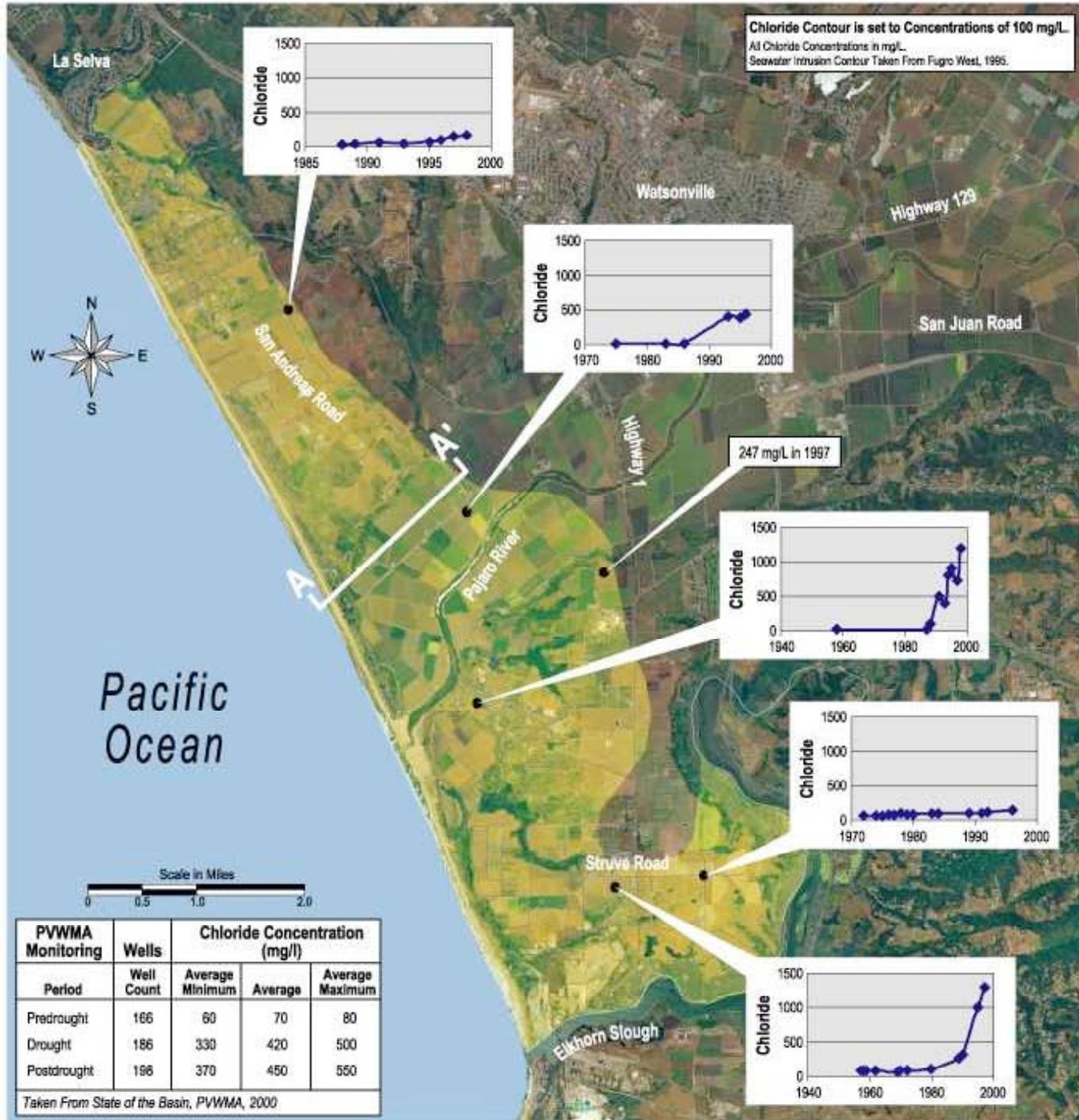


OUR INCONVENIENT TRUTH

PART ONE



My very wise and beloved late Hungarian mother often used to say to me, “You can lead a horse to water, but you can’t make it drink.” For well over ten years I have found this expression very accurate in respect to our Santa Cruz community and our water problems and deficits here. So, starting today with this column, with which the editorial board of the Sentinel has graciously provided me the opportunity to publish a two part op-ed piece, I’m going to attempt to lead this horse, our community, to the water which is available to us right here and right now.

Some of you readers might recall that around a year ago I, through my nonprofit Monterey Bay Conservancy, ran full page ads twice in this paper describing our water crisis, our “inconvenient truth”, and its principal cause --too many berries. I also described the dire economic, social, and environmental consequences which result from this berry based economy which requires us to use up our water supplies and other local resources in the way we are doing. For your reference, I have rerun this page again to accompany this op-ed piece. I hope you will review it. At the page’s end, I said, “I’ll be back to you soon....” with a water solution.

Well, I’m back, and here it is. In today’s piece, I will lead us to the water that we already have here locally, but don’t quite yet realize it. Water with which we can successfully address all of our region’s water needs without either desalinated or imported water, nor even new dams or reservoirs, using only the abundant natural system we already have in place here -- our existing ground waters -- in a reasonable manner.

In the follow up piece, I will describe how we can secure this water for our community’s future needs and security, and then how we can use it sustainably, reasonably, and productively to create what I term the “global exemplar social, economic, and natural system” for our planet -- based necessarily and primarily on sustainable local water policies – right here in our part of the Monterey Bay.

So first: where's the water?

Well, if you read this paper, you would know that a pipeline is possibly going to be built in the South County and that water will be imported through this pipeline from the Central Valley Project and elsewhere.

This and other local sources will eliminate the huge water overdrafts, salt water intrusion problems, and massive water resource losses which plague us from Soquel Creek Water District through Pajaro. Consequently, one might reasonably conclude that this "pipeline" and water imported through it must be our salvation.

Wrong.

While it is true that a pipeline may be built and that water may be imported through it, this cannot fairly be described as "the solution" to our water deficit. Why? Because, unfortunately, what is not explained or understood by our community, and apparently by the elected officials/decision makers in this County, is this key fact: once our agricultural well pumping practices are changed (or, as the Pajaro Valley Water Management Agency calls it, "optimized") twice as much water will be newly and sustainably available to our local wells and groundwater in Pajaro than will be imported through the possible new pipeline

In fact, the Pajaro Basin Management Plan indicates that, on average, only around 13,400 acre feet of water yearly is expected to be imported through the new pipeline to address the 45,000 acre foot yearly Pajaro and Soquel Creek Water District (SCWD) overdraft.

I include SCWD here, as well, because SCWD gets one third of its supplies from this same shared Pajaro Basin groundwater. Though unacknowledged by SCWD (or anybody else, for that matter) Pajaro's water abuse and resource loss is SCWD's problem, as well. La Selva Beach's critical salt-water problems and SCWD's "SEASCAPE WELL" are examples.

What also goes unexplained is that this plan hinges on the most important fact/assumption that twice this amount of water -- that is, 26,000 acre feet yearly -- will then be available from Pajaro's (and SCWD's) local ground water and wells once agricultural well pumping is redirected from the coastal area to other more inland locations in the Pajaro Basin. This critical fact/assumption, by the way, has been operative and pivotal in all PVWMA water planning since 1993...

Most simply put, when we stop pumping agricultural wells on around 8,000 acres of ag lands near the coast in Pajaro, and redistribute the pumping inland, the yearly sustainable yield of the Pajaro Basin wells will more than double from the present 24,000 acre feet a year to 50,000 acre feet per year. By stopping the coastal agricultural pumping, we will gain 26,000 acre-feet of new local, sustainable groundwater supplies. This is a huge increase in the local water supply.

This key fact/assumption is contained in an obscure appendix of the Basin Management Plan (Technical Memoranda 4 for Subtasks 6.1, Baseline Conditions and Basin Sustainable Yield Analysis, Raines, Melton, and Corolla, Inc., May 31, 2000) that nobody of consequence here in our community seems to have read or be aware of. I would suggest that a reading of this appendix become required reading for our local decision makers and anyone else interested.

Consequently, the “pipeline” and imported water is not the real solution. Instead, stopping agricultural well pumping in the 8,000 coastal area, which will produce twice the amount of new supply yearly from our natural groundwater system than the pipeline is expected to, is the most important and necessary step which we must take, in any event, to solve our local water crisis,

In my next article, we’ll discuss how we can go about doing this.

PART TWO



There is a very well known book on water made into a four part PBS TV series: Cadillac Desert, The American West and Its Disappearing Water, written by the late Marc Reisner.

Prior to his recent death, Reisner visited Pajaro Valley in 1998 and spoke here at a community water meeting. During his talk, in answer to a question (mine), Reisner said that he knew of no worse water abuse and resource loss to saltwater intrusion anywhere than was (and still is) occurring in Pajaro.

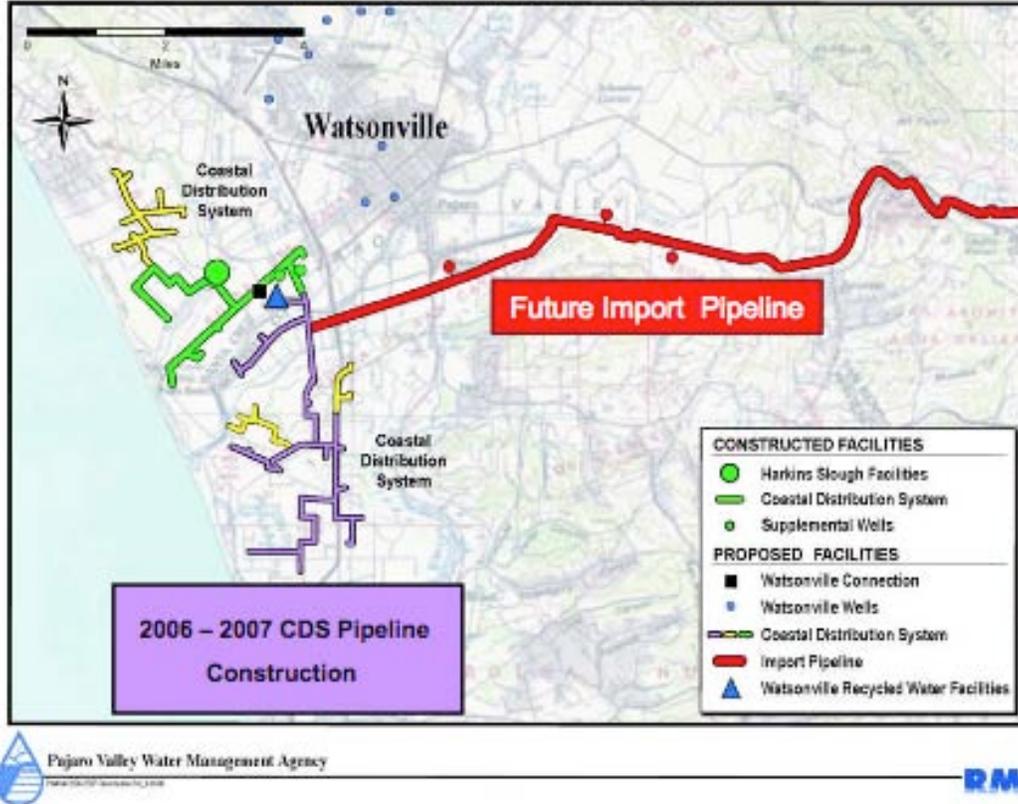
Reisner was specifically referring to “Our Inconvenient Truth”==the fact that up to 15,000 acre feet yearly of our groundwater resource is lost to the sea and salt water intrusion because of over pumping to grow berries. This crop uses around 90% of Pajaro’s (as well as Soquel Creek’s) water -- three times as much yearly as is sustainable -- causing a 200% overdraft. This yearly resource loss is twice the city of Watsonville’s yearly use, twice Santa Cruz’s and Soquel Creek’s water needs for the next 50+ years, 7.5 new Santa Cruz Desal plants, or put another way, a supply that easily could serve a human population of well over 125,000 -- in a county that has a population of less than 250,000.

As was pointed out in the first part of my op-ed, there is only one way to stop this hemorrhaging of seawater into our aquifer, and that is to stop all ag well pumping in the 8,000 acre coastal area and redistribute that ag well pumping to other inland areas of the aquifer. Once we’ve done that, we will then be able to pump sustainably over twice the amount of water as we currently can-- that is, 50,000 acre feet per year instead of only 24,000 acre feet per year.

I also pointed out that the new pipeline, if ever built, is only expected to import to Pajaro, on average, around one half that amount, or 13,400 acre feet a year. Consequently, I characterized “stopping pumping at the coast”, rather than “the new pipeline” as real solution to our water crisis.

Well, there are two ways to stop ag well pumping at the coast and solve our water dilemma. The first way and current choice of PVWMA (which by the terms of the current law-the Pajaro Valley Management Act- is controlled by the agricultural community) is depicted in the accompanying graphic.

PVWMA BMP Projects



In this plan, a pipeline will bring an average of 13,400 acre-feet of imported water yearly plus other local supplies to the 8,000 acre coastal salt water intruded area. This will allow the feudal current model of our local berry economy to remain uninterrupted at its current state and scale. It will utilize the entire 13,400 acre-feet of newly imported water plus the 26,000 acre-feet of new local sustainable groundwater and more for....guess what==berries.

The second way to stop pumping on this land is to buy it. And here's why we should.

First, a coastal acquisition of this scale – in that case, for purpose of “saving the North Coast” (the 7,500 acre Coast Dairies Ranch)- has already been successfully achieved. This demonstrates unequivocally that future development constraints on coastal

property, preservation of agriculture, and habitat and resource protection are valued highly by us.

Consider the parallel nature of buying and fallowing this 8000 acres. Besides being, in and of itself, a huge 50,000 acre feet per year conservation and “new water supply project” and the only potential regional water solution which immediately and with certainty cures the immense current annual saltwater intrusion resource loss, such a purchase would also open miles of beach and coast front property to public use. Additionally, these acres serve as home to some of the most threatened world class and ecologically valuable and critical habitats; namely, the Elkhorn Slough and Watsonville Wetlands systems -- as well as, of course, thousands of acres of some of the world’s best farmland.

This solution helps us live within our means in a sustainable and reasonable manner.

Let’s look at the benefits of this approach. At 3 acre feet per year per acre for berries, fallowing 8,000 acres would conserve around 24,000 acre feet per year (coincidentally the same amount of water as the current total basin sustainable annual yield). Additionally, acquisition of and cessation of coastal ag well pumping on this land would also produce increased water revenue because the Pajaro basin yield, a water product which is currently sold by the acre foot, would more than double from 24,000 acre feet per year to 50,000 acre feet per year-again, with no further saltwater intrusion resource loss. At \$300 an acre-foot, this would generate \$15 million dollars a year in water revenue == more than enough to finance this property’s acquisition.

So, what would it cost to buy this land? Well, according to the BUREAU OF RECLAMATION Environmental Impact Statement prepared for PVWMA, the cost for the land would be around \$29,000 per acre or \$232 million. Additionally figured into costs

was around \$160 million in lost ag production and 5,000 lost farmworker jobs if this following plan was followed.

This tells us that each farmworker job lost produces only \$32,000 of ag revenue for the employer, not enough to pay a local living wage even if the entire amount were dedicated to this purpose. These farmworker positions, therefore, are hardly the greatest job opportunity or circumstance for our community members.

But how could we ever compensate for this ag revenue and job loss if we pursued this course?

Here's how-according to LAFCO parameters, 5,000 living wage jobs could easily be created on less than 250 acres in the City of Watsonville, a federal enterprise zone with tax credit job creation incentives. On less than another 250 acres, 5,000 decent and affordable housing units could easily be constructed as well, to provide the housing for the new jobs and households. At 4 people per household, this represents a retooling of 5,000 farmworker jobs into the kind of new jobs we need here, and helps lift 20,000 of our residents out of abject poverty and into decent housing and steady taxpaying status.

It is true that this could cost us up to 500 acres of ag land urbanized and annexed to Watsonville. However, this also would create a model for our region which would preserve the balance of the 30,000+ acres of ag lands remaining in perpetuity with local, sustainable ground water, the best kind, available to meet our entire community's needs from Santa Cruz through Pajaro, in a more diversified and robust economy.

Most importantly, this plan would stop the flooding of seawater into our groundwaters, which yearly creates this massive ground water resource loss of around 15,000 acre-feet of water a year.

What's the value of this annual loss? Well, at the very low end that Santa Cruz anticipates paying for its new desalination plant (not including operations and maintenance), that's a rate of around \$20 million per 1,000 acre feet of water, or an annual loss of around \$300 million – most “inconveniently” almost \$70 million more loss annually than the entire cost of buying this land...

Note..please see..”Watsonville Approves New General Plan”

<http://www.santacruzsentinel.com/archive/2006/May/24/local/stories/03local.htm>