Ec.143: Used Notes

Kawahara: catalogue of diseases.

A. Violation of = unpd. princ. Evidence.

1. Govt. expenses. LSID, 200' lift, steel pipe, resrs., hi taxes + rates. Others, unlined canals etc.

2. Well depths. 150' vs. 0

3. Wtr/acre 1.76' vs. 7' + pvt. pumps. Xfr. enjoined.

4. Value of output/af. $300 vs. $30. Pasture, alf., barley.

5. Prodn. response to Δ wtr. 1952, CVP. Needs Δ output, yields doubled. In Fresno Cty, no Δ. Lwr. delta, no Δ.

6. L.v. Δ due to wtr. Thermal zone, $800 - 50 = $750 + capd. taxes. Lower delta, no Δ.

7. Willingness to pay for Δ wtr. LSID paid + pd.

8. Appraisals of soils. Thermal bench lands are the best.

9. Size of farm
Small, hi unpd NP

B. Unreliable supply. Kwh. $\frac{\sigma^2}{\bar{x}}$ = 63,016 af.
Σ in div. dimensions = 98,050, or 56% more.
No Δ in aggreg. variability.

p. 19

C. Excess diversion capac.

Σ = 4740 cfs = 2.2 peak of all diversions = 11.5 mean diversion

D. Excess canal mileage p. 21.

356,000 acres vs. 89,500 a.

Watch. serves 11% land inside perimeter.

E. Conveyance losses
1. Elevation (neg. entropy)
2. Seepage. ⇒ Wrong places, p. 23; Wrong times, summer, p. 24

X-banking. 50/50 at McKay Pt.
T.I.D. crosses both branches to Watch.

F. Underused ground wtr.

Only "surplus" wtr. can be exported. Commingling taints recharge wtr., wtr. "banking". KDWCD, no wtr. rts. acquired.

G. Inadequate reuse of wtr.

Best rts. at bottom of system

H. ~~Ef~~ Seepage, Kwh. & small local streams.
" " " Kings R. p. 28

1/12/84

I. Statements of Interest.

a. Rotate chairs.

b. Current events.

i. Offshore decision

ii. Teague + gravel + Hiway Comm.

Jennings.

Thurs., 1/19/84

One presides, questions others.

Intro

1. Proportions vs. Scale. Holt.

2. Earnings, Findings & Stealings

a) Approp. Apprec. (plowbacks)
Case of Aramco, other foreign subs. How do their assets Δ? Only negligibly by importing $.

b) Is Appreciation a finding or a stealing?
If deliberately contrived, is a stealing.
E.g. by conniving to have taxpayers money thrown your way.

If accidental, is a finding.

Does it matter? In either case unearned. (I'm guilty too.)

c) Approp
i. Force & fraud. Ballona case.
ii. Deliberate, ~~to~~ used as incentive ~~to~~ to develop. "Rent-seeking".

After people have approp. wtr. by diverting it, is it an ~~§~~ "evening"? They think ~~so~~ so — others may not. E.g. Ezekiel 29.

Ba Mora Case. Tells history of approp.

1839, Mex. Gov. Alvarado granted.
Mex. got from Spain
Spain from Indians, bloody conquest.

Anglo lawyers got some Mex. grants by corrupt means. 19th cent. was corrupt.

Cal. ~~has~~ asserts "public trust" in lands derived from U.S. titles. Public access; save waterfowl.

To avoid dual system, Cal. S.C. also applies to Mex. titles: $\frac{511}{670}$ mi. of coast, on 1679.

They also claim Mex. law recognized public trust, which passed to Calif. in 1849.

Tues; 1/17/84

Rotate Checis

1. Water, natural supply, common action
   No free water – why?
   Must govt. abandon ec. principles?
   Powers of L.D.s.
   Effect of taxing. Taxes as promotional.

Scale ecs.

a. Pooling. Tube, Kuh. + Kings.
   Individ. wtr. rts.
   Pooling demand – e.g. circles. on Sage Canal.

b. Storage
   i. Surface — History of L.D. pioneering.

   ii. Underground.
   Need large areas; comparably settled.
   Conjunctive use.

c. d. Conveyance.

e. Facing. Land dev.

f. Synch.

g. Compactness of settlement. "Total Comm."

h. Mgmt. of aquifers.

i. Drainage
j. Multi-purpose dev.
k. Marshalling social implications. Tech, & proc.

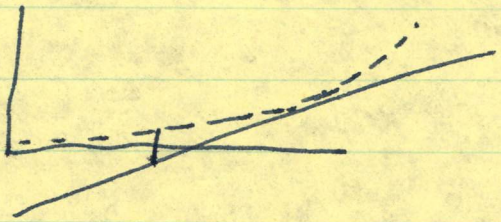
Matrix on wtr. rts. Fill in.

Initial allocn.
Motive to dev.
Constraint on unec. use
Rationing under scarcity
X fr ability
Pooling.
Mgmt. of aquifers.
Containment of service area.
Equity

Tu. Jan 31, '84

I. Approp. doctrine.

Initial allocn.



a. A form of open access – more subtle. Dissipates rent.
b. Prop. being created
c. Racing vs. compn.
d. Legally not propty.
e. ~~Common~~ Is a frequent condition
- Reid. requt.
- Oil & gas leases
  Work requt.
  Explr. requt.
- Handrock mineral leasing act.
- Local mapics
  Bank charters
  Zoning for nuisances & pollu. rts.
- Patents, new technologies -- eg. solar.

E.g. MWD "entitlements."
Apple V. "

Motive to develop.

Excessive, as well as premature.

No cost

Esp. diversion capacity. Kwk. 6 x max. flow.

Underdev. of post-diversionary K; + storage.

Constraint?

Perverse — use as much as possible.

E.g. proposals to use more wtr. in Rio Grande belt; pump above canal, etc. Throw wtr. at problems.

Wtr. often substitutes for intensive land use.

Bad pricing, based on cost. Imported vs. local wtr.

Rationing.

Seniority.

(Use of Water masters)

No pooling of risk.

Reduces % of flow that is usable.

The problem: an assumed need for cert. intra-100% firm supply, no mkt. in crude.

A frequent condition in resource indus.

Fractional divisn. is better.
Price is better ~~yet~~ yet. Like lettuce.

Viability.

In practice, very low.
This is one reason cities wipe out groves.
They go for the wtr., "appurtenant" to land.
Prs. of diversion cant in concrete.

Legal problem of early I.Ds.
"Trustees"

Pooling

OK - w/in ancient limits.

Aquifer mgmt?

Surface comes first.

Containment?

Kwh. nightmare.

Los Angeles Times



LAURA CHRISTMAN

Hearst hideaway on McCloud River is focus of a controversy.

A Right of Passage

River Rafter Is Making Waves for Landowners

By ANN JAPENGA, *Times Staff Writer*

McCLOUD, Calif.—It was the close of the commercial river rafting season in 1982, and Dean Munroe was getting his usual off-season jitters. The only cure for it was to go out and run an untried river.

Munroe trucked three 12-foot rafts and eight friends to the put-in of the Upper McCloud River, about six miles east of McCloud, an old railroad town. They set off in a trickling stream, with barely enough room between the banks to maneuver the rafts.

A mile downriver they heard an increasing roar, then came upon a 10-yard wall of white water, gushing from rocks furred with lichens. Glacier melt-off from high atop Mt. Shasta seeped underground to surface here, forming the McCloud River.



Dean Munroe

For a river guide seeking new runs, this was a once-in-a-lifetime find. The overgrown banks were like gardens; there were bald eagles and blue heron overhead; and the water, Munroe said, was the color of Aqua Velva after-shave.

The rafts were swept on through two miles of choppy rapids. Then, when the river opened up, Munroe and friends had their first look at a fantastic estate they had only heard about in campfire tales. Perched on the river bank was a Tudor-style castle decorated with scenes from Snow White and the Seven Dwarfs and other Grimm's Fairy Tales. They passed right under the balconies of more buildings—a teahouse with a spire, something that appeared to be a movie theater, and finally a stone estate on a lip of land where the river empties into Lake McCloud.

"I realized the castles were going to be a problem," Munroe said later. "But I had no idea how it would manifest itself."

Munroe had stumbled onto Wyntoon, an estate built by William Randolph Hearst in the '30s. Now the only one of the Hearst family's seven castles still under control of the Hearst corporation, Wyntoon and its 60,000 acres of adjoining wilderness is apparently used as an occasional retreat. Patty Hearst is said to have recovered there from her experience with the Symbionese Liberation Army.

Munroe, 38, applied for a permit to run the McCloud commercially with his outfit, Wilderness Adventures. Rivers may be run freely on a non-commercial basis, but rafting companies must apply for access through the landowner of the put-in and take-out sites on the river—in this case, the Shasta-Trinity National Forest.

Munroe also made the Hearst Corp. aware of his plans to run the McCloud.

A letter came back from Hearst attorney Philip Battaglia on March 14, 1983: "We vehemently oppose any rafting activity on the Upper McCloud River. . . . Your continued promotion of rafting the McCloud constitutes a direct willful interference with our client's quiet use and enjoyment of its property which will not be tolerated."

The letter went on to demand that Munroe "cease and desist" plans to run the river, threatening him with legal action if he did not comply.

Battaglia argued that Munroe had no right to promote commercial use of the McCloud since the river had not been deemed navigable. The Public Trust Doctrine adopted in 1850—"All navigable waters within (California) shall be common highways and forever free"—applies only to waterways that have been declared navigable, he said.

But since only a couple of rivers in the state have ever formally been declared navigable by the Legislature or the courts, and because he had in fact shown the river could be run under oar power, Munroe sees

Please see RAFTER, Page 8

RAFTER: Making Waves for Landowners

Continued from Page 1

this as a technicality.

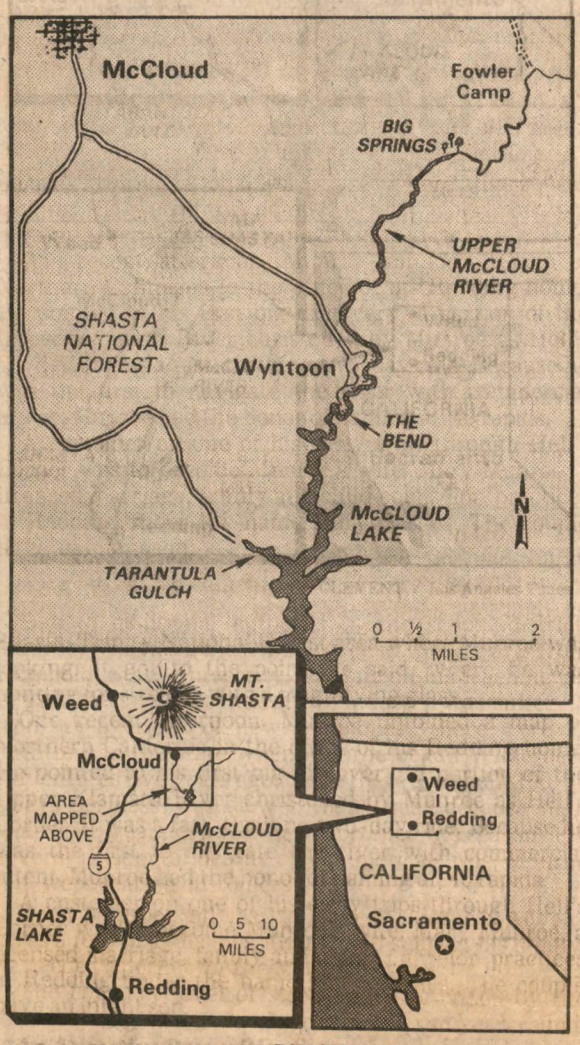
His interpretation of the Public Trust Doctrine: "You can't own the water."

— — —

Munroe was teaching drama at Shasta Junior College in Redding in 1979 when Proposition 13 cost him his usual summer school job. He decided then to turn a hobby learned from his father into a part-time river rafting business.

By the mid-'70s, the staples of the Western river runners' trade—the Colorado, Tuolomne and Salmon rivers in California, as well as Hell's Canyon in Idaho and the Rogue River in Oregon—had become glutted with requests for permits and were closed to additional commercial use. New companies like Munroe's had two options: They could buy out an existing permit (for as much as $1.5 million on the Colorado, Munroe said), or they could seek new runs.

But there were few virgin rivers to be had in the



DON CLEMENT / Los Angeles Times

Shasta-Trinity National Forest area where Munroe was looking. It got to the point, he said, where he was hunting for streams with a magnifying glass.

One recent afternoon, Munroe unfolded a map of Northern California in the office of his Redding home. He pointed to his first big discovery, a portion of the Upper Klamath River christened by Munroe as Hell's Corner. It was a fast, thrilling two-day ride. Because he was the first to navigate the river with commercial intent, Munroe had the honor of naming all 40 rapids.

A customer on one of his early trips through Hell's Corner was to become Munroe's wife. Mary Munroe, a licensed marriage, family and child counselor, practices in Redding under the name Mary Barnes. The couple have an infant son.

An Attractive Proposition

Due to additional cutbacks in the school district, Munroe, who has a master's degree in theater arts from Humboldt State University, was laid off his teaching job in 1982. Meanwhile, the rafting industry was suffering from an overload of new companies (there were 27 outfitters in the state when Munroe began Wilderness Adventures five years ago; today there are about 100, he said). Business was slower than usual because high water two years in a row had shortened the season, and several accidental deaths on commercial trips, Munroe felt, were scaring customers away.

Dean Munroe said that to make Wilderness Adventures a full-time business that would support his family, he needed a permit for the McCloud River.

The constant level of stream flow provided by the glacial spring meant the river could be run year-round, making it more valuable than rivers dependent on seasonal flows. What made the Upper McCloud so attractive to Munroe was the same feature that drew wealthy families there early in the century—the constant water level and steady 42-degree temperatures provided an excellent habitat for trout and other game fish. It was a fisherman's heaven.

The whole of the McCloud River canyon was once owned by Charles Wheeler, a San Francisco investor. Piece by piece, the Hearsts bought out Wheeler's holdings on the Upper McCloud.

On the Lower McCloud River, a group of sportsmen including August Schilling of the spice company and Gray Hills of Hills Brothers Coffee formed the McCloud River Club, an exclusive retreat. In the mid-'60s, the McCloud River Club donated much of its holdings to the Nature Conservancy.

(The three major landholders on the Lower McCloud today—the Nature Conservancy, the Bollibokka Club and the McCloud River Club—all have opposed Munroe's application for a permit to run the Lower McCloud. Munroe's application was denied and he has appealed to the regional forester in San Francisco. Preservation of the environment, rather than protection of privacy, is the focus of controversy on the lower river.)

By the time the Hearst estate and the clubs were established, the old Wintu Indian paths that fishermen had used for access to the river had been allowed to grow over. The new canyon landowners quietly discouraged public use of their paradise.

Sanctity Preserved

Private parties continued to pilot kayaks down the McCloud, but for the most part the sanctity was preserved until Munroe came along.

Although he saw an undeniable commercial appeal in the enchanted estate deep in the woods, Munroe said he never meant to give the Forest Service the impression that he was interested primarily in Wyntoon. "The river was, to me, by far the most important attraction," he said.

In all the times he's drifted by the chalets, Munroe said, he's glimpsed only a sole caretaker. There have been no signs that the buildings are occupied on a regular basis.

(Comment was unavailable from Hearst Corp. attorney Battaglia of Los Angeles, who said it is not his policy

Please see RIVER, Page 19

RIVER RAFTER

Continued from Page 8

to discuss matters on behalf of his clients.)

Munroe said he believes a segment of the public—that portion that cannot pilot a raft and needs to hire a commercial river guide—is being denied access to the McCloud River, which Munroe calls "as significant a natural wonder as Mt. Shasta."

John Nelson, the McCloud district ranger who initially denied Munroe's permit, said: "Because of the amount of private land adjacent to the river (as much as 90% is private property), we didn't feel it was our responsibility to get into managing the river." Nelson said his office contacted the landowners on the river, suggesting that they share responsibility for monitoring commercial rafting, but all declined.

In a letter to Munroe, Nelson said he'd reconsider Munroe's application if the river guide was able to gain cooperation of landowners.

Munroe did write to the Hearst Corp., asking for input for a brochure he was writing about how best to manage rafters on the one-day, 6½-mile trip down the Upper McCloud. However, he said, he balked at the idea that he should request their permission: "I didn't want my permit to be held hostage to the whims of the landowners."

Munroe has appealed the district ranger's decision to the regional forester in San Francisco, and is awaiting a decision. Jim Shiro, a recreation specialist for the Forest Service who is doing staff work on the appeal, said the regional forester will be weighing the effects of commercial rafting on Forest Service and private lands along the McCloud River.

If the regional forester upholds the denial of a permit, Munroe said his only recourse will be to take the private landowners to court.

USC Program on Aging to Focus on 'Options for Independent Living'

USC's public lecture series on "Aging: Today's Research and You" will continue March 7, from 9:30 a.m. to 12:30 p.m., in Davis Auditorium of the Andrus Gerontology Center.

Raymond M. Steinberg, associate division director of USC's Institute of Policy and Program Development, and Monika White, senior staff associate at the Andrus Gerontology Center, will discuss "Options for Independent Living."

Admission is $5. Information is available at 743-7541.

Floodgates Already Open at Parker Dam

Colorado River Residents Face New Record Runoff

By BILL CURRY, *Times Staff Writer*

PARKER, Ariz.—Along the Colorado River, farmer Jake Colvin gloomily reflected on what the river is doing to his 300 acres of crops this year. "It's real possible we could not have anything," he said, "and we know it's going to at least be reduced."

Not far away, a neighbor's cotton crop from last year remains unharvested; for his land, Colvin's and thousands of acres more are spongy with salty ground water pushed ever closer to the surface by the brimming Colorado River.

Here on the Parker Strip, sandbags and plastic sheeting are still arrayed at the door of TK's restaurant, a casualty of last year's summer floods on the Colorado. Today, the water still laps on the steps to TK's, which has never reopened, and small currents in the unseasonably high waters of the Colorado still probe at the pitiful defense of sandbags and plywood.

Just upstream, the $35,000 cabanas at Moonridge Marina, usually alive with potluck dinners, daiquiris and song, are empty and quiet. The quick, green waters of the Colorado have claimed them too. The eddies still cover the stairs and concrete where Gordon and Shirley Rabehl once kept their riverside pool table

Please see RIVER, Page 22

WEATHER

U.S. Weather Service forecast: Today and tonight—clear. Tuesday—partly cloudy.

	Highs	Lows
Sunday	74	45
Today's forecast	about 77	near 48
Tuesday's forecast	about 70	near 50
Feb. 19 last year	78	53

Record high Feb. 19, 1965	85
Record low Feb. 19, 1880	34

Complete details, Part II, Page 2.

MAP FOUND HERE

MWD . . .

(From Page B-1)

ture so it can develop another source of money to replace property taxes.

The legislative mandate stems from a longstanding opposition by Los Angeles to the district's use of property taxes to finance its distribution system that brings water from the Colorado River and Northern California. The city has long contended it pays a disproportionate share of the district's property tax revenues compared to the water it draws. Los Angeles draws about 2 percent of the district's water, but contributes about 28 percent of its tax revenues.

The district raised its property tax rates last fall to help cover the increased cost of interest on bonds issued to pay for improvements to the State Water Project. If the district is required to roll back those rates, the lost revenues would have to be made up through higher water rates, the district asserts.

About a third of the district's revenues comes from property taxes, according to Timothy Skrove, a district spokesman. The rest comes from water sales.

√ In the last two years, water sales have been down sharply — 18 percent last year — because of heavy rainfall, Skrove said.

Although the dry spell of the last two months has boosted water sales a bit, Skrove said, "we're still in a period of low water sales overall." Lonergan, the district's chief financial officer, said reservoirs of MWD's members are full and those members are likely to tap those sources first before drawing large amounts of MWD's water.

Considering all these factors, the district has drafted eight different options, with increases in the basic rate for untreated water ranging from zero to $37 an acre-foot.

District officials also are proposing to increase the surcharge for water treatment by $4 an acre-foot. That would apply to about 70 percent of the district's water sales, according to district figures.

Skrove said the district in the past has been able to weather consecutive wet years by drawing on reserves.

What's different this time is a sharp increase in costs the district must pay for its share of the State Water Project and a cut in reserves.

About 60 percent of the district's $350 million budget goes to pay MWD's share of the State Water Project, Skrove said. This calendar year, he said, the district's obligation for the project will increase by $46 million.

Lonergan said the district is paying more for the State Water Project now for two reasons:

√ Electrical costs for pumping the water south over the Tehachapi Mountains have increased 10 fold in the last two years as long-term contracts for electricity come up for renewal.

√ The state Department of Water Resources, as part of the State Water Project, has built about $400 million worth of power-generating plants. The largest of those, according to Lonergan, is the Reid-Gardner coal-fired power plant located 75 miles east of Las Vegas. That plant generates about 250 megawatts of electricity, he said.

"There will be some payoffs down the road," Lonergan said.

Although it may be costly now, electricity generated by power plants operated by the State Water Project in years to come should cost less than the electricity that can be purchased on the open market, Lonergan said. "So the costs per kilowatt-hour will stay relatively stable over the 30 year life of the plant," he said.

Lonergan said he thinks the district has seen the last major cost increase from the project for the next few years. "We don't anticipate any more big balloons," he said.

Part of the district's financial instability lies with the reduction of its reserves, Lonergan said. The district maintained 40 percent reserves until Prop. 13, Howard Jarvis' first successful property tax limitation measure, was approved by the voters in 1978. Following that, the district reduced its reserves to 25 percent.

Because of its financial problems, the district is considering returning to a 40 percent reserve. If the district adopts the proposal, Lonergan said, it would use the reserve in good years to cover the costs of building new facilities — costs that ordinarily would be financed with borrowed money. In years when revenues aren't up to budget, the money could be used as a cushion to relieve the need for sharp rate hikes, he said.

Also, as part of its effort to reduce its reliance on property taxes, the district is considering a service charge or assessment charge that would be paid by the member agencies.

UCR chemist given grant to probe coal secrets

An analytical chemist at the Univesity of California, Riverside, has received a $250,000 three-year grant from the U. S. Department of Energy to probe the chemical secrets of coal.

Peter Griffiths will seek data that could lead to the production of clean energy from coal. He said the information may lead to economical methods of liquifying coal to run gasoline engines, heat homes and provide electrical energy.

Griffiths will use a technique he designed called Diffuse Reflectance Infrared Fourier Transform Spectroscopy — or DRIFTS — that identifies the chemical components of complex mixtures.

DRIFTS produces spectra that reveal unseen molecular structure, Griffiths said. Unlike most techniques, it takes the spectra directly from a powdered solid without pre-treatment. Griffiths said this will allow him to examine reactions of coal in its natural state.

"Amazingly, even though people have been looking at coal and using it for centuries, we really don't know much about the structure of coal. It's an incredibly complex mixture of compounds," he said.

With many of the nation's oil sources drying up, Griffiths said an energy crisis looms on the horizon. He said the Prudhoe Bay oil field in Alaska will reach maximum production next year, then quickly decline, while production in the North Sea oil field is declining now.

"In 1990, if the price of gas isn't at least $3 a gallon, it will be a miracle."

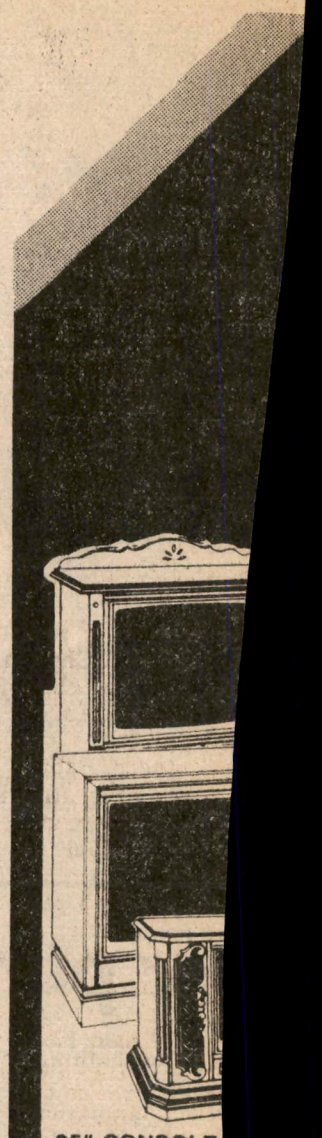
But he said estimates indicate the nation's coal supply is so plentiful it could fuel the nation for 200 years. "And we've got bags of coal, tons and megatons," he said.

Lost something?
Find it in
Lost & Found

REPIPING • WATER & GAS
LEAK DETECTIONS
We locate Sewers and Septic Tanks
Free Estimates
HAYDEN PLUMBING
734-2330

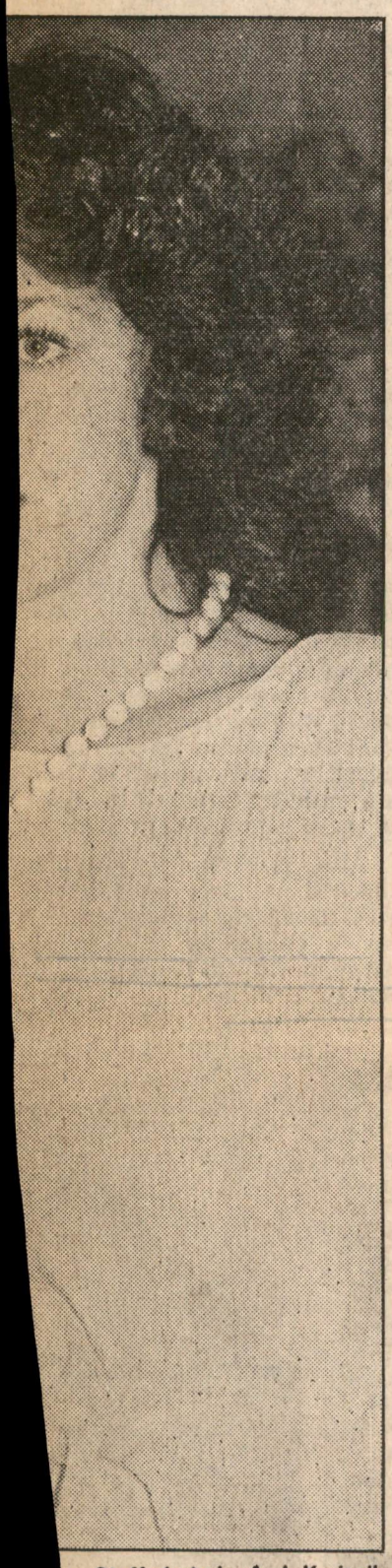


BEE SMART
dək'strə lə
dextrally (adverb) Although they have the same root, don't confuse "dextrally" with "dextrously." The first syllable of both words is derived from "dextra," the Latin word for "right" as opposed to "left." "Dextrally" means "toward the right" while "dextrously" means "skillfully." Many words sound similar. That's why it's a good idea to ask the pronouncer during a spelling bee to define your word and/or use it in a sentence.
STUDY SPELLING WORDS WITH RIVERSIDE COUNTY STUDENTS GRADES 4 TO 8 PREPARING FOR THE COUNTY BEE MARCH 16. AT RAINCROSS SQUARE, CO-SPONSORED BY THE RIVERSIDE COUNTY SCHOOLS OFFICE AND THE PRESS-ENTERPRISE



25" CONSOLE
diagonal
Wide selection of
ture cabinets. Eve
control and touch
models.

column B-3
gs B-3



Staff photo by A. J. Kmiecik

n.

its one section of the
arbook and plans to get a
o in business management.
✓ April Rawlings, 17, co-
itor of the yearbook.
wlings says she plans on
rrying and writing books
er graduation.

MWD considers new 20%-plus rate hike

By DOUG BEEMAN
Press-Enterprise Staff Writer

Metropolitan Water District, whose largest rate increase ever took effect less than two months ago, is contemplating another increase of more than 20 percent for many users.

The size of that increase — if any — won't be determined until March. It would take effect July 1. According to the district, it will depend on anti-tax crusader Howard Jarvis, state law and the weatherman.

The district will hold a public hearing on its various rate hike proposals at 10 a.m. tomorrow at MWD's headquarters in Los Angeles. The address is 1111 Sunset Boulevard.

But district officials say there's a glimmer of hope that future rate hikes will moderate.

Gerald Lonergan, the district's chief financial officer, says the district is examining methods to stablize its revenues. That would eliminate the need in the future for sharp rate hikes to compensate for lower sales, he said.

MWD wholesales water to a large number of cities and water agencies from Ventura to San Diego. The district sells water to Eastern and Western municipal water districts, which combined, cover nearly all of western Riverside County.

In the last three years, MWD has more than doubled most of the rates it charges for an acre-foot of water. An acre-foot is the water required to cover an acre a foot deep, or about 326,000 gallons.

For example, MWD currently charges $197 for an acre-foot of its untreated water under its rate for non-interruptable service. For the same water in 1981 the district charged $96 an acre-foot.

Last October, when MWD approved the $53-an-acre-foot rate increase, district officials said they hoped any additional rate hike this summer would be minimal.

"We're still comfortable that that condition prevails," Lonergan said.

However, three "uncertainties" could change that:

✓ A proposed initiative being circulated by anti-tax crusader Howard Jarvis. Called Jarvis III, it would close loopholes in the state's property tax-limitation law approved by the voters in 1978.

Jarvis must get his petitions filed by March 19 for the proposal to make the November ballot.

District officials fear the initiative, if approved by the voters, would be retroactive and prevent it from using property tax levies to help pay its share of the State Water Project. The project carries Northern California water south.

MWD officials also are concerned it would prevent the district from using property taxes to collect the annexation fees it charges new members to the district.

✓ A legislative mandate to the district to roll back its property tax rates and reduce its reliance on those taxes. The district hopes to obtain a two-year waiver of the rollback from the legisla-

(See MWD, Page B-2)

Temperatures to rise, winds to diminish

Winds that whipped much of Riverside County yesterday should be decreasing today with temperatures increasing as Santa Ana conditions subside, the National Weather Service said.

No damage was reported by winds that gusted to nearly 40 miles an hour at times in parts of the western county, but the California Highway Patrol issued a traffic advisory in western Riverside and San Bernardino counties for large trucks, recreational and other flat-sided vehicles to stay off the roadways.

The only advisory in the desert area was on Interstate 10 between Indio and Blythe.

Those advisories will remain in effect until the winds have died down, the CHP said.

While many county residents are enjoying the cloudless skies, farmers would be happy for a good rain to water their crops.

Maximum temperatures around the county today are predicted to be in the mid-70s in the western county and the mid-60s to mid-70s in desert communities. Similar highs are expected tomorrow.

Wednesday may cool off a bit again with daytime highs in the mid- to upper 60s.

Mountain areas should be fair with highs 48 to 56.

Palm Desert and Indio tied for the high temperature in the county with 76. Mecca had 74; Oasis 73; Desert Hot Springs and Hemet 72; Palm Spring, Corona and Temecula 71; Cathedral City, North Shore and Sun City 70; Riverside 69; Thousand Palms, Blythe and Lake Elsinore 68; Riply 67; Calimesa 64; Beaumont 62 and the mountain community of Idyllwild 55.

er panel

sion meets three or four times
onth.
The commission recommend-
hat the East Area council be
ined because of the area's
and because each of its mem-
s are familiar with the desert
munities. But it may be dis-
ded later as more desert land

EDF Analysis Concludes Power Project is a Loser

Drawing on a burgeoning literature in recreation economics which sets forth methods for assigning monetary values to environmental recreation impacts that are usually ignored in developers' benefit/cost analyses, EDF economists have analyzed a proposed $1 billion California hydropower project. The EDF study compared the value of the project, in the Tuolumne River Canyon, to the value of leaving the environment in its current state. It found that the project would cost society a net loss of more than $26 million a year, while preserving the area would have net economic benefits for society.

The study, conducted by economist Robert Stavins and others on EDF's Berkeley staff, was submitted in August to a Senate subcommittee studying the area's designation for federal wilderness preservation.

For half a century, the Tuolumne River and its tributaries in the Sierra Nevada Mountains have provided much of the electricity and nearly all the water used in San Francisco and many nearby communities and rural areas. Despite heavy hydroelectric development on the river, a 30-mile stretch downstream from Yosemite National Park still remains free-flowing, a scenic and recreational attraction for visitors from throughout the state and nation. It is this critical 30-mile stretch that is now the proposed site for a series of massive dams, diversions, reservoirs, and hydroelectric powerhouses, known as the Clavey-Wards Ferry Project.

EDF designed a "social benefit/cost" model, using recent advances in economic theory and methods. Two project impacts were studied: (1) the virtual elimination of whitewater boating from an 18-mile stretch that is considered one of the premier rafting runs in the U.S.; and (2) the near-total ruin of one of California's finest trout fisheries. Even considering only these two impacts, EDF calculated that, for each dollar invested in the project, society would receive at most 88 cents. The return is even less if other environmental impacts are quantified and included in the calculation.

A paper by Stavins and EDF senior economist Dr. W. R. Zach Willey, describing the innovative method for internalizing environmental costs, will be published in a professional journal in late 1983.

EDF Seeks Ban On Exports of Hazardous Waste

EDF Spurs Progress On Chlorine Control in Virginia

EDF has succeeded in ending an impasse that had blocked progress by a Virginia state task force on chlorine control, which was formed in response to a 1982 petition by EDF. As a result, the group is much more likely to recommend a final state standard for chlorine that could be adopted early next year.

Task force members haggled for months over the possible costs and consequences of controlling chlorine in sewage treatment plant discharges. Finally, EDF scientist David S. Bailey, who is on the task force, suggested that the State Water Control Board provide the group with sample permits that would be representative of problems that might be encountered.

Bailey, with the help of other environmental task force members, found solutions to every permit problem presented and demonstrated that aquatic life could be protected at little or no additional cost. Furthermore, in those cases where additional costs for chemical dechlorination or new facilities were needed, the same improvements to eliminate chlorine toxicity also produced more reliable disinfection and a cleaner discharge. ●

New Bulletin Lists

Court Halts Clearing Of

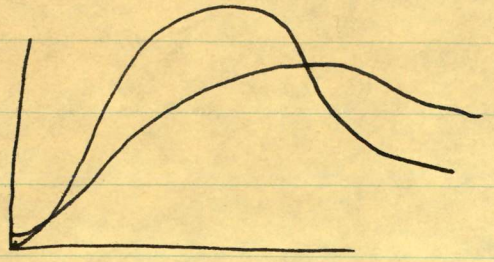
In early August, a federal court halted clearing in more than 5,000 acres of Louisiana bottomland hardwood forest wetlands in Catahoula and East Carroll Parishes, in response to litigation by EDF, the Louisiana Wildlife Federation, and three other local and national environmental groups. The suit charged that the Corps of Engineers violated federal wetlands protection laws in allowing the forests to be cleared and converted to agriculture.

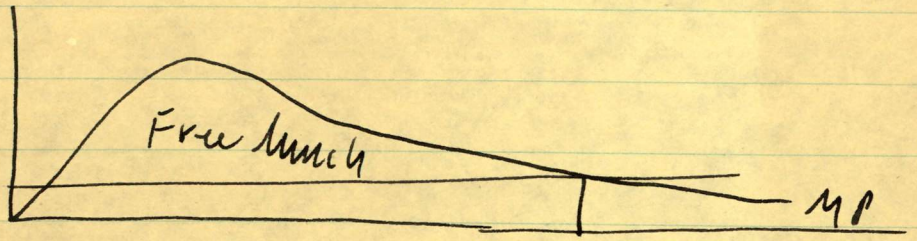
1981 EDF Suit Wins Key Court Ruling

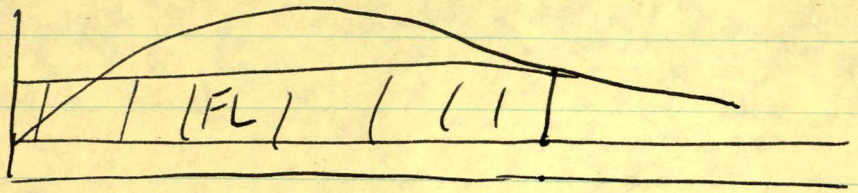
An EDF lawsuit against the former Administrator of the Environmental Protection Agency (EPA) has led to an important court decision establishing that a federal agency's refusal to enforce a regulatory program mandated by law is subject to court review and may be found illegal. Courts typically rule that enforcement is within the sphere of agency discretion.

The ruling came in *EDF v. Gorsuch* a 1981 lawsuit challenging the former EPA Administrator's decision to defer processing operating permits for existing hazardous waste incinerators and

I. Intro







1. Fk a surplus.
   a. Pls. don't call it profit.
   b. C.S. or rent.

2. If P = mar cost, rent = 0. This is marg. consumer.
   Marg. rent also = 0. Intramarg. marg.

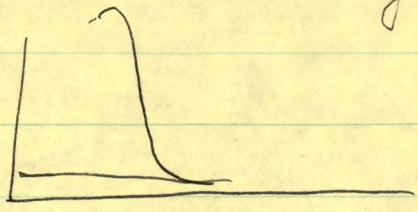
3. The land also has an alt. use, yielding rent.
   Some like to call the alt. rent a cost, and redefine rent as excess of ~~land~~ highest rent over 2d highest.
   But that is confusing, bcs. 2d highest rent

is also a rent. E.g. it can all be taken in taxes w/o reducing supply of land. Is not a cost in the ~~to But there a~~ functional sense, i.e. a pmt. needed to call forth supply. [Also confusing bec. 2d highest rent is undefined.)

Max. attainable rent is called "highest & best use." Excess over rent in 2d tier use needs a name. Call it premium rent; or project-induced rent; or Δ rent.

4. Project benefits take 2 forms:
   a. Revs. from sales
   b. Δ rents on hands of customers. Free lunch.

5. The ~~re~~ relative importance of Δ rent depends on shape of MP curve.
   With wtr. in SC, very steep.



∴ Δ rent very bri cfd. to revs. from sales.

6. The vulgar competitive model fits where the reverse holds. Take Brozen, Stigler, etc.

7. Rent ~~is found~~ arises in 2 other places:
   a. W+r. production
   b. 2dry benefits. E.g. new Corona cheese plant.

II. Green Bk. A. Objectives of Ec. Anal.
1. Demand must be expected. (could fairly soon).

2. Max B-C
   Not B/C

Rules out pre-emptive underdev.

add all separable "segments"

3. Project shd. be more ec. than any alt. ~~use of the Arts~~ way to accomplish the purpose. Sometimes violated: e.g. Welton-Mohawk Desalt. plant.
4. (They shd. have added, more ec. than any use of project site.)
   E.g. New Melones vs. river rafting.
   Merced proposals vs. Yosemite
   Hetch Hetchy vs. Grand Canyon of Tuol.

Glen Canyon Dam vs. Dinosaur Nat. Mon.
Urban land vs. sailing on SF Bay
Kaiser Corp. vs. Ballona Wetlands
Sespe Cr. vs. Cal. Condor.

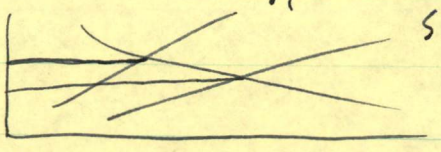
But recreation is not the only alt.
There are conflicts between wtr. supply + power, and flood control, + salinity control, + downstream quality.
Navigation, too; and fish.

Many early power drop grabs by PG+E or SF have interfered w. wtr. supply.

5. (Their #4) Priority. Vague. We shall return.

B. Viewpoint

Local view is too narrow, for Fed. analysis.
(But wd. this lead to cancelling benefits due to reduced rents elsewhere? — not if customer rents are considered.



Other possible values:
Future generations
Health
Welfare
Nat. sec.

C. Basis for evaluation.
Use mkt. price, but should it to acct. for price distortions.
Give shadow prices to:
Saving lives
Health
Recrn.
Scenic

D. Basic Concepts, B + C

a. Project Costs (include land)
b. Assoc. costs
c. Primary Benefits. Sale of wheat - not water
d. 2dry costs
e. 2dry bens.

E. B & C attributable to project. p. 9
Cost is o.c. Assumed equal to prices made.

c - b ≡ Primary bens. attrib. to proj.
(Thus they claim pvt. rent.)

e - d ≡ 2dry bens. attrib. They stem from net primary bens. (if any).

2dry bens. arise from putting idle res. to use. E.g. excess capacity. (They mention existing excess capacity, but the idea is easy to grasp. There is also latent excess capacity — e.g. raising pop. of a region may get it to the critical mass needed for a gas pipeline, a rail line, an airport, etc. "Regional Δg ~~cost~~ returns." This is the great dynamic unknown, which mainstream neo-classical analysis shunts aside.

Green Book cops out on 2dry bens. p. 11

F. Ec. Limitations on Scale of Project. p. 11
1. They shd. not say scale. They mean proportions.

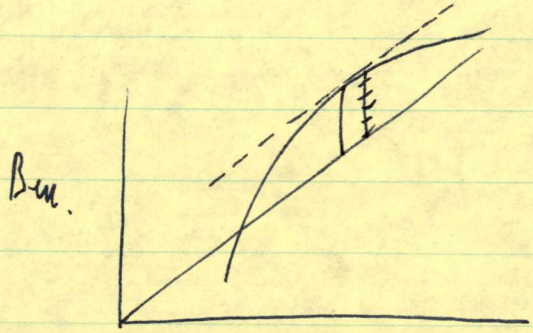
Tues., 2/28/84

~~Mon.~~ 2. They show graphically what they said earlier: max B-C by mgnl. analysis.

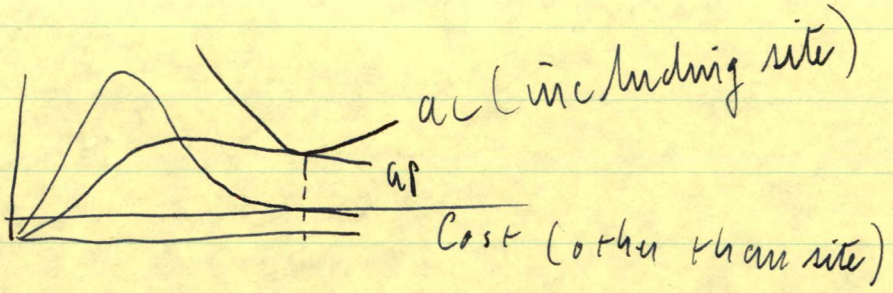
3. This is a case where the assm. of a fixed site is most appropriate.

4. Scale means; add more sites, on this or other rivers.

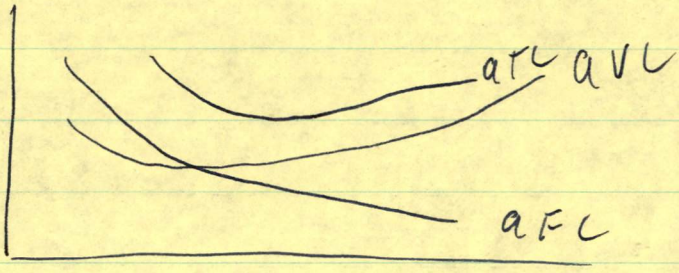
5. Is max B-C "efficient"?
Treat max B-C as a cost of the site.



This is what mkt. does when you have to pay for site, in price, rent, + taxes.
The reason Green Bk. must go thru this logic is, govt. gets sites free.



The standard way of showing that is:



Hirsh. ch. 6

1. Review Fuc capn.
   Loan to Socal

2. Use K_i as V_i and $\dot{r}$ as P
   (Alt-ly, cd. use K as V_i and PVR as P)

3. Fncl. feasibility vs. Ec. feasibty.

   a. Fncl. feas. means "self-liq.", from own revs.
   "V_0" > 0 (they use PV approach).

   b. Ec. feas. means $V_0 > 0$, but
   - add non-salable benes to V_0
   - use arbitrary low $i.r.$

4. C.S.

   They wd. collect it by price discrim.

   Wrongly say Green Bk. omits it.
   They entirely miss primary Δ b.v. ... only see 2dry, & miss it.

5. 2dry benes. Thus they miss out on what wtr. wars are all about. E.g. periph. canal.
   Techn. ok
   Pecuniary not

Hirsh.

(Call from Wa. Post.)

✓ 1. Discount future. Many fail to.

✓ 2. They justify i.r. on basis of productivity of K, alone.

Low i.r. on govt. p.w. draws K away from more productive pvt. alternatives.

(Add – it also w/draws K from circn. } Causes unempl. – too bad they don't care about that.)

3. Future gen. is cared for by pvt. mkt.

(A more challenging qu – is that of Paine + Jeffn. How shall wealth be distrib. to future gen?) (Also biblical.)

✓ 4. I.r. is manipulated by Fed — but w+r. planners shd. accept that, + other parameters "That's not my Dept". (If anything, Fed holds i.r. down.)

✓ 5. Cap. mkts are perfect.

"Risk" explains i.r. diffs.

6. C.S. results from large Δs of w+r.

✓ 7. They dismiss Edy Lens., if pecuniary. Thus, miss out on much of life.

E.g.

a. Weirton Steel case

b. Agribusiness. The ec. is vertically intd. Downstream value-added. Food and textile indies.

These require land, too - scarce urban land. E.g. E.T. Wall ~~of~~ parkers + growers.

E.g. mills + storage of Minneapolis.

Upstream supplies.

E.g. J.I. Case of Racine.

Their idea of ~~compet.~~ competing away gains ignores rent: "imputed away".

✓ 8. Empl. benefits. They dismiss — being neo-Hamiltonians. p. 131, see no difference between ~~freedom~~ labor unempl. and in vacancy rates in office bldgs.

✓ The finc'g may crowd out other uses of K. (current deficit).

The land might also have a better pot. use. p. 130 they mention Hells Canyon,

a poor e.g. -- pigmy clam was proposed.

UCR wd. be better e.g.

They see "losses" from infln. as offsetting gains in empl. @ p. 131. (But infln. is just redistrib.; unempl. is net loss.)

9. ✓ E. p. 137 Re mutually exclusive projects, Hirsh fails to say <u>what</u> makes them mutually exclusive, thus falls into error.

Hirsh rejects G B idea of ranking by B/C.

But G.B. means if K is limited, choosing among alt. "projects" — i.e. <u>sites</u>.

Hirsh refers to alt. uses of same site.

10. A tougher criticism of B/C is its ambiguity. We can deduct PVE from PVR — or add PVE to K_0. Get 2 different ratios — and

occasionally, 2 diff. rankings.

E.g. $PVR = 5^-$
$PVE^- = \frac{1}{2}$
$K_0 = \frac{1}{2}$

a) $\frac{PVR - PVE^-}{K_0} = \frac{4\frac{1}{2}}{\frac{1}{2}} = 9$

b) $\frac{PVR}{K_0 + PVE^-} = \frac{5^-}{\frac{1}{2} + \frac{1}{2}} = 5^-$

[(b) is probably right]

(I see a more serious qn. Discounting is really deducting int. If you evaluate at $\underline{u}$, get a lower B/C.

The solution may lie in conceptualizing a pregnant qn – the sort of thing I should be doing, extending idea of i.q.)

✓ 11. Why does R and put money into knocking reclam? From their view, developing U.S. ranks below ~~developin~~ worldwide expansion!

Wrap-up, Thurs., 3/15/84

Ec. 143.

✓ 1. Revolving fund that never revolved.
Like circ. lib. (invented by Ben Franklin) where first borrower kept book.
Or RSF-UW Press fund, if ERT never sold.

✓ 2. Use of real i.r.
a. Use current $ and nominal i.r.
b. Use const. $: real i.r.

✓ 3. Econ Bk. violates #2.
p. 17 uses current $ ... i.e. project inflation.
p. 23 uses 2½% i.r., for the Fed. input.
But use higher rates for assoc. pvt. invt.

4. Claims of public invt. to be "stabilizing", or counter-cyclical.
a. Is an integral part of old demand-side ecs. Stockpile plans for p.w., have them ready to go when needed. But even GB is easy on this, p. 28. Hirsh. is more sympathetic, p. 131.
b. Now, we have deficit finance w/o pub. works. And unempl. too.
c. P.w. sequester real K.

Ht. of line shows intensity of use



d. ~~Mtg. spending it the~~.

d. P.W. are a subst. for developing intensive mgn. of pvt. land.

By credit rationing, the int. mgn. is cut off as an "A of low quality" — i.e. no rent = equity to cover risk on loan.

But then K is pumped into dev. new lands, by: a) subsidies

b) Spec. values serve as collateral, even while current income is mgnl.

e. ~~First~~ The ultimate sink of K is mtg. spending, to ~~cover~~ "serve" new lands by taking them from others. E.g. our mtg. int. in mideast; S. China Sea; Caribbean (off shore Venezuela); N. Sea; Africa; etc.

f. Big constrn. projects are locally destabilizing. "Brother, Can you spare a dime".

But K_0 is bunched in time.

Regionally, boom of regional dev. is also destabilizing.

Nationally: a) a nation may be

like a region

b) Viewing a big region like the world, closed ec, can also get freezing of K.

✓ Like RBR if all books put on 7-day reserve, not enough to go around.

Ec. 201. 1/18/83

Correlative Rts

Initial Allocn. — Overlying land — but wtr. subject to capture. Only "surplus" exportable,

Motive to develop. — Excessive, both s.r. corpus + l.r. "safe yield" - no ec. content

Constraint on waste. — None, until adjud., prorate. (Orange City. Wtr. Distr. precedent) Basic prefixed solution, "pour wtr. on it."

Rationing — adj. + prorate. Perverse effect.

Xfr — No. Can recapture.

Pooling — No banking. "Commingling."

~~(Except Orange City, W.D.)~~

Aquif. Mgmt. — Aquifer use lost

Continuity — No. "Exporters" have seniorities.

Equity — No

Urban Orgs

1. MWC

2. I.W.

One-man one-vote, from 1887.

Cliché that Fed. policy forced small homesteaders on unwilling west.

1877 Desert Land Act, revise.

Wright Act let homesteaders survive. Populism; quintessence: local control; small farms; pub. ownership of ut.; utopia: single tax; farm town.

Taxing, bonding, forced inclusions

Model for ec. dev. -- neglected today.

~~Joint~~ Separates large scale fm. from small farm.

Taxing: a. Allowed P = MC

b. Accelerated change: aborted spec. Base land only.

Bonding:

achieve scale, erotic demand

(has dangers, too!)

Inclusion: Constitution of San Jose

" " accordion streets

Scale ecs.

a. Pooling S + D

Antith. of Kaweah

b. Storage

Modesto. Turlock, later S.F. alliance.

Preceded Fed. Rec.

Outdid giant owners of Desert Land Act; Swamp Acts.

Local enterprise ascendant + triumphant — in tradition of feisty indep. colonial settlers in English empire

c. Diversion

d. Conveyance

Good - but cities abused it

e. Fail.

Pool credit

Pass it on to settlers in low l.v. Better than individ. borrowing.

f. Synch.

Pvt. owners must respond.

(This is why fed. subsidy has been so counterproductive.) (E.g. now of Maricopa Cty.)

Meet crisis of max. neg. cash flow

Interdependence, many indiv. decision-makers.

I.D. is a community synchronizer.

(Fallacy of Rev. Bonds -- never work this way. Vble. cost -- ∈ of demand.)

g. Compact settlement

Water forces it. Then other gains are possible: xptn., power, etc. From towns.

"Total Community"

Diversifica. to use labor year-round.

h. Aquifers

i. Drainage. (You can't sell the product; must tax land)

j. Multi-purpose

E.g. flood control; power.

k. Using "free lunch" of Δ rent for public purpose.

1. Tax ~~fav~~ 2day benefits.

All good ideas get perverted & abused here.
But here is a strong federal

~~Fed. agencies~~

Huffman, strictly grass roots, leaves them out completely.

~~Def~~. Better use Challenge article

Added factors from my Lindholm piece.

✓✓ Tax cap. + effect on behavior of landowners.
Why is tax prot. different from o.c. as incentive?

a. Psych. effect. You see it.

✓ b. Risk effect. Rent ceases to be part of equity cushion.

(O.C. is still there ... ~~cash~~ i.e. the best alt. use.
Net value of o.c. declines, but gross value remains same.)

c. Cash flow effect
Income ..
Wealth ..
~~Info.~~ ..
Social ..

d. Credit effect

e. Diff. i.r. effect.

i $V = \frac{a}{i}$

ii $V = \frac{a - tV}{i}$; $V = \frac{a}{i + t}$

Alt. proof

$$V = \frac{a}{1+i+t}\left[1 + \frac{1}{1+i+t} + \left(\frac{1}{1+i+t}\right)^2 + \dots\right]$$

$$= \frac{a}{1+i+t} \cdot \frac{1}{1 - \frac{1}{1+i+t}} = \frac{a}{i+t}$$

iii $$V = \frac{a}{1+i} + \frac{a(1+g)}{(1+i)^2} + \dots = \frac{a}{1+i}\left[1 + \frac{1+g}{1+i} + \dots\right]$$

$$= \frac{a}{1+i} \cdot \frac{1}{1 - \frac{1+g}{1+i}} = \frac{a}{i-g}$$

iii (cont.) Useful variants.

α. Solve for V_i, the c.c.

$$V_i = a + V_g$$

– Means V_g same as realized cash. But in fact, people vary a lot. $1g$ worth little to some; & everything to others.

– Income tax laws written to favor V_g.

β. Solve for V

$$V = \frac{a + V_g}{i}$$ Cap. V_g in perp.

(Meaning unclear.) (But easy to remember)

γ. $V_g = \Delta V$ each yr., even tho g meant something diff. originally.

iv. Intuitively, combining $t + g$,

$$V = \frac{a}{i + t - g}$$

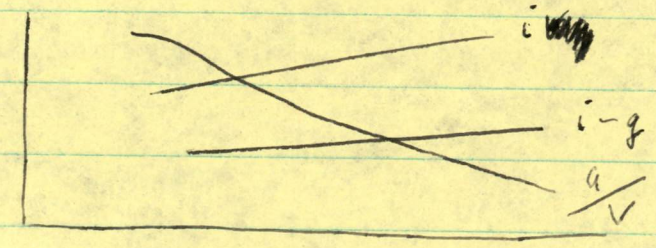
It also works out so,

$$V = \frac{a}{1+i+t} + \frac{a(1+g)}{(1+i+t)^2} + \dots$$

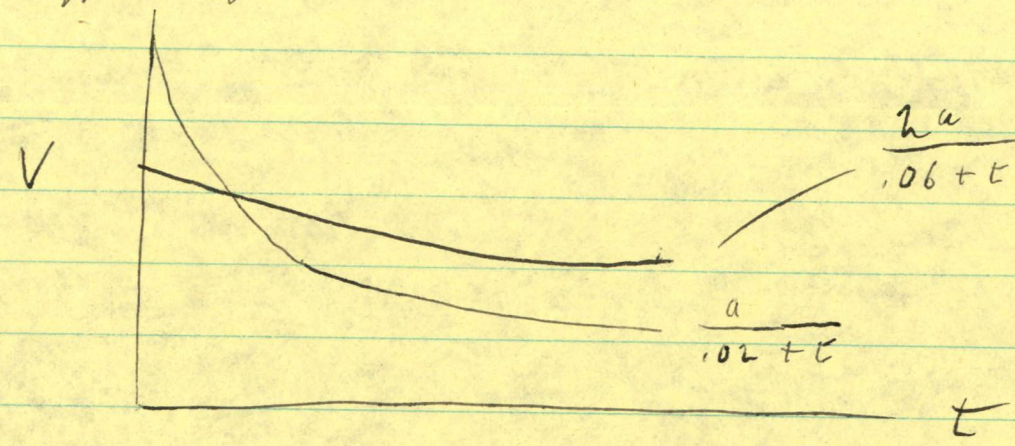
$$= \frac{a}{1+i+t}\left[\frac{1}{1 - \frac{1+g}{1+i+t}}\right] = \frac{a}{i + t - g}$$

a 4th form. cf. p. 15 of 6/68 draft

$$\frac{a}{V} = i + t - g$$



v. Effect of land taxes



Early L.D.s imposed land taxes to consolidate service areas; and speed dev. of pvt. lands.

This ~~attacked~~ attacked the major cause of wtr. waste, i.e. sprawl, & maint. floating value, speculation.

So is wrong to say land tax fails cuz free wtr. is major cause of wtr. waste. & At least the free wtr. gets applied. The greater problem is failing on wtrs exempt from diligence, to reserve them for included, under. lands. Here we waste the wtr plus the advance capl. E.g. Anz. claim on Colo. R.; EBMUD on Mok; SF on Tuol; MWD "contracts" for SWP; Apple Valley contracts

****

✓ The aristocracy created by business rarely settles in the midst of the manufacturing population which it directs; the object is not to govern that population, but to use it. *De Tocqueville*

****