Rural-urban competition for water, Ames, Ia., Aug 12-15, 1960

## Annexation Fees

"Increased Use of Annexation Fee as Privilege of 'Buying City Stock'" Western City Jan '56 p. 54-5.

Water?

Beverley Hills, Chico, Hayward, Merced, Pasadena, Sunnyvale mentioned. If new lands enter they must pay.

This sounds like selling water in part. Probly is a sort of bilateral bargaining re all advantages of being annexed.

Hayward made it a per house fee, rather than per acre, to discourage small lots.
(Also sounds like Sig cost stage – probly short run tho)

Fees run fairly steep – e.g. $185 per person at Chico

"Ways to discourage unwanted or too rapid growth." Horizons for Modern Pa. local Govt, 3(4): 1-2, 4-56.

p.1 Mt. Lakes N.J. '39, acquired 15% its land by tax foreclosure. Then just held. Sells 6 lots/yr. (pop. 2800)

Then '52 bought 20% its area to forestall new bldg.

Springfield Twsp, Delaware Cty, leased a large pvt golf course to forestall subdiv-n.

p. 2 Large lot zoning recommended.

Munics tending to require subdividers to install own utilities now. Sometimes even sewers, where main line isn't there yet.

Beverley Hills charges min. $2,000/acre for annexation etc.

W+r

Value w by annexation fees like this. But other services than water are involved.

Urban demands slight, but expenses large. EB $252m e.g.

Why, when cheaper wtr available? To nail down rights

Of some rural expenses — $10m in wtr tolls, e.g. annual income.

Wish S had given more emphasis to diseco inherent in alloca.

1. Rigid priorities, variable supply. Cities jr. to Pttn — SF., Sta Barb, SDiego, EBMUD probly to Woodbridge

Variable supply. jr bears all risk. To use, ∴, must build costly storage, even tho sr. is wasting wtr, like PPD & M&TID & probly lower Sta Ynez

Sometimes ag. is jr. to urban, e.g. Pleasanton Twsp. to SF.

2. No uniform standard of economy applied.

3. Non x fr table

4. Arbitrary priorities

Cost of xpt'g water is so low
cfd to all other forms, is folly to
keep munic. watershed inside settlement
bounds. 'Tis as bad as graz'g cattle
inside city, & justify'g on grounds
of lower cattle ~~xpt~~ xpt'n cost.

Lose use of land, & force all xpt'n
to go by it.

Cooper, Vincent T. "Fiscal W Problems & 2 proposals for Solution.
To W Resc Com 1961, Cty Supervisors Assn of Cal, 2-3-54.

Wants tax on water sales.

p. 3-4

151-2, munic wtr sales totaled $67m.

152, ID sales " 10.8m

File, Rural-urban compn. for water.

H. Gregor brings out in Geog. Rev. 7-54: 422-23.

Urbanization & its wtr requirements of lands bes:

a. It uses hilly lands that agric. doesn't

b. It does not reuse wtr. He puts it that consumptive use is the same, but delivery requirements are larger. bes urban land is sewered. Not clear if he knows what the terms mean, or what he is talking about at all.

It is not generally true that domestic water is not reused. Many cities draw water from polluted rivers. In arid areas however probly reuse of sewage water is less common than of irrigation water.

Ten years ago a Presidential Commission created ~~quite~~ a stir with the statement that water productivity was sometimes 50 times higher in industry than agriculture. It is significant that neither paper develops this theme. ~~The~~ Most cities have good legal access to water. I ~~would~~ applaud & second Dr. Smith's point that the water conflicts heralded as city vs. farm are in fact primarily region vs. region. Thus in the celebrated dessication of Owens Valley it was not the farmers who waged war against Los Angeles, which had compensated them handsomely. It was the urban landholders of Bishop who demanded compensation for their loss of trade, ~~or~~ secondary benefits, which ~~were~~ was transferred to South along with Owens water, much of which went ~~into citriculture.~~ to develop farming in Los angeles' trade territory.

I feel ~~some~~ more reservations about Dr. Smith's other thesis, ~~that~~ "~~The big shift will center the competition to inter- or intra-agency conflicts," and "rural-urban competition for water then is not focused upon the water right but upon the internal decision~~ that if I interpret ~~him faithfully~~ it on he purports, that ~~water~~ traditional law is largely ~~giving way to administrative machinery in allocating waters.~~ My reservations: 1. Rural-urban water transfers inside irrigation and other water districts are not new, The ~~very~~ earliest Districts included cities and have served their growing needs ever since.

2, The big interregional agencies are only developing new waters, ~~not~~ large in volume but marginal in value F.O.B. their sources. The ~~sacred~~ waters of high location value ~~remain~~ still flow ~~tranquilly and inefficiently~~ under the ancient and honorable priorities, ~~some~~ ~~many of them~~ ~~unvexed to the sea.~~ often unvexed to the sea.

3, The internal decision-making machinery of inter-regional agencies has little influence on policies, which are set and jealously guarded by ~~the~~ ultimate powers in the ~~Legislature~~ state assembly, the courts, the Water Rights Board, and (on Federal projects) the Congress. ~~California courts are tend to regard interregional canals as natural watercourses in which the customers establish perpetual rights, with the agency reduced to~~ Not just policies but specific allocations. ~~State policies~~ are often interregional compromises battled out in the unreapportioned, gerrymandered Legislature. California courts, for their part, seem to be treating interregional canals as natural watercourses in which even new customers establish vested water rights on the old pattern, & the W.R.B. bound subservient to this viewpoint.

4, The postwar years have witnessed a strong resurgence of localism, with the Bureau of Reclamation severely chastened and reduced to an agency for administering court orders. ~~And the Bureau's ambitious~~ aspirations plans of the late 'forties, which today seem the ~~by no means represented a high water mark~~ aspiration, of administrative ~~planning. They~~ were, in turn, much less ambitious than the State plan of the early 'twenties, which envisioned a complete integrated administration of all waters, including even the untouchable Tuolumne, Kaweah, and Kern. Rivers.

With these reservations it is still true, as Dr. Smith points up, ~~that interregional transfer agencies have grown and may grow more.~~ that the growth of large agencies is an important change. I would emphasize the increased control exercised, not by administrative machinery, but by the State legislature and the Congress. ~~In~~ This presages a relative weakening of established cities in the competition for undeveloped water. Previously the big cities had an effective monopoly of interregional transfers because of their high cost and extremely long deferral of benefits. ~~and the cities', claim-jumping statutory power of privilege on undeveloped water, & appropriating not for their own future growth.~~ enable.

This made for an aggrandizement of established urban nuclei which imported water to develop their dependent trade territories. State and Federal agencies are now transferring water to less wealthy fringe and rural areas. This should tend toward decentralization of economic development in California.

My third reaction to Dr. Smith's paper is that it offers the status quo more aid and comfort than it merits. He raises the question whether institutions inhibit economical water transfers, and in several passages indicates substantial satisfaction with their performance. Volumes could be written on the diseconomies inherent in water law; here I will mention a few peculiar to rural-urban competition.

Cities grow scatterwise. They claim water to serve the actual growth plus undeveloped lands included within some outer boundary of growth, plus a comfortable surplus to cover all conceivable safety factors and to signalize and adorn their great expectations. Thus they preempt water from agriculture or other cities long before they use it. The law smiles on this, specifically authorizing cities to reserve waters for hopeful future growth and to jump the claims of farmers who are up to the same game but lack the finances to begin developing factitious "uses" so far ahead of ~~any~~ need. (P 1460)

This would be bad enough, but the waters that cities reach for first are not the ones that economic considerations would prescribe. Ideally they would develop the waters most convenient to them, and least so to others. But our water law, which grants rights of use free of charge to the first comer, brings into play a reverse force, ~~principle~~, a sort of principle of comparative disadvantage.

The handier water is to others, the more urgent it is for you to capture it now, preclusively, while the getting is good. Local waters you keep in mothballs for the 21st century. Neither extravagance costs you nearly as much as it does society, since State law lets you tie up valuable waters ~~xz/xøzcøs/~~ without any charge.

Meantime urban settlement expands beyond the limits of established water service agencies and new ~~ones~~ agencies organize to develop new waters, again laying claims, if they can, in anticipation of "ultimate" full development, encouraged by aid from State and Federal agencies.

The net result is preemption of waters that is premature by generations. ~~decades or centuries.~~ I offer San Francisco as a horrible example. ~~Her~~ She reached out early for rights on the Tuolumne River, ~~some~~ ~~160~~ 170 miles from home, ~~xø~~ with a significant vector in the direction of Los Angeles. ~~Xzk/zøzxø/cøxzyzfi/zxgszxade/xøz/zefore/1913.~~ ~~If fully developed~~ Her agents filed on the river ~~they would yield 400 mgd. They date back to county filings~~ well before 1913, but the ~~first~~ water first reached her in ~~San Francisco~~ until ~~in~~ 1934. At this point she put many of her local sources on standby, and in ~~1960~~ today uses 400 mgd from the Tuol. filing less water for herself than ~~these local~~ the mean annual flows of her fully owned sources would yield if ~~completely fully developed.~~ ~~Xø Her to say nothing of~~ not to speak of undeveloped sources in nearby in Ala. & SM cities Sonoma & Lake Sta Cruz & Marin cities

On the Tuol. she ~~has~~ claims 400 mgd, of which she now has capacity for to deliver 160 ~~mgd~~ & actually delivers c. 121 ~~gpcd~~, (74 in SF & 47 outside). ~~Her~~ She owns

The flow in her HH ag. is largely counter to the gnrl needs of the State & must be offset by costly reverse xfrs by her agencies. SF & W. her ag. partners ~~partners~~ on the Tuol. have blocked every move to xfr its surplus ~~W~~ southwards, east & ~~compelled~~ toward areas of shortage.

I find here ~~very~~ little ~~to dignify by w. the name of one can defend~~ net contribution to ec. welfare

left ~~to~~ valuable power drops unexploited until 1956, & only acted then
bcs threatened w. their imminent loss.

Concerning Gertel's and Wollman's paper, the authors have mercilessly flagellated themselves far beyond my poor power to add or to detract. They present some important data which I hope they may have further opportunity to synthesize more tightly and develop further. I do not think they have exhausted all its potentialities.

I like the sentiment of their penultimate paragraph where they conceive of a market for water operating in a framework of public control. My own thoughts are moving in the same direction, and from Dr. Smith's recommendation to explore the use of flexible contracts I infer that his are also. On this basis I take hope in the thought that our economic instincts are pushing us all toward similar conclusions.

I. 10 yrs ago a Pres. Comm. created quite a stir w. the statement rptd that productivity of wtr was sometimes 50x higher in industry than in irrn. There are flagrant e.g.s of that sort of thing. & ~~it is widely believed~~ & If this were representative, as many ~~guess true~~, & if it ~~people believe~~, & applied to mgmt as well as ave. productivity, this wd. certainly overshadow all other aspects of rural-urban compn for wtr. (but I think is signif. neither paper devs. the point. Fact is, most cities have good legal access to wtr, & when they appear to be surrounded by lower productivity for wtr it is usually by their own choice, as they go foraging afar in other regions to augment their ~~total~~ annual regional local supply.

~~So I applaud author's treatment, &~~ I wd. 2d S's pt. that wtr conflicts heralded as farm vs. city are primarily region vs. region. Thus in the celebrated decision of Owens V . . . . .

II. I feel some reens c. Dr. S's thesis that ~~I believe D. S. has somewhat overstated his thesis, if I interpret it aright faithfully.~~ may be. ~~On a 2d part of Dr. S's thesis I feel some reservations, that~~ "the big shifts will center the compn to inter- or intra-agency conflicts," & "rural-urban comp. for wtr then is not focussed upon the wtr at but upon the internal decision-makg machinery of the large orgn." My reens are these.

1, There is nothing new about rural-urban wtr xfrs inside Irrn. & c. kinds of Districts. The very earliest I.D.s were orgd w. cities included & have supplied Ag as wtr as urban growth required it

2, The big interregional ~~xfr~~ agencies ~~have not~~ are not presiding over any ~~xfr of wtr from ag. to~~ rural-urban wtr xfrs bcs they are only devlg new wtrs, not integrat'g preexistent systems. While the BR is, & DWR may be handling large volumes of wtr, these are mgmt wtrs in terms of their origins. The more valuable wtrs, & I think the larger volume, ~~remain controlled by local agencies, which~~ remain ~~Balkanized~~ (actually under

& subject to the traditional ~~controls~~ system of ancient & honorable priorities.

3. The internal decision-making machinery of ~~large orgns~~ interregnl agencies has little ~~to say~~ impact on basic policies. These are set by ~~Col.~~ Leg., ~~its agents~~ [the Col. Wtr Comm that controls State filings] the Wtr Rts Bd, the cts, & on Fed projects the Congress, heeding the tech. advice of agency staff only as it pleases them. Cal. cts seem to be doing their best to interreg. ~~State law~~ regards ~~long~~ canals [as ~~much like~~] natural wtr courses in which even the new ~~users~~ est. approp. rts. in perp. ~~of use.~~ ~~BR personnel ind. prefer more flexibility, & this~~ whereas the Madera & CC IDs, & c, whose wtrs stem from previous rts, have completely fixed priorities.

4. ~~While there may hv. bn a time when BR personnel tried to promote interregional flexibility under adm. machinery, they have been chastened so that trend of last 8 yrs~~ Recent trends have been witnessed ~~a~~ strong resurgence of localism, w. BR now ~~chastened~~ currently shrunk & reduced to an agency for fulfilling court orders, & resort to courts as arbiters. The postwar ~~yrs have been toward greater local~~ Even the dreams of planners hence ~~continued~~ Going farther back, we find in CWP of early '20s a far more complete intn of all wtrs including the untouchable Kern, Kaweah, & Tule under one adm. agency than the BR ever ~~attempted~~ proposed. From this aspiration there has been continual retreat. ~~to~~

There is no doubt interreg agencies hv. grown, & this has wrought imptnt changes. I ~~suggest the most~~ am inclined to ~~think~~ emphasize the ~~Fed~~ control of State Leg. exercized thru device of State filings & requirement all devs jibe w. a phantom State Wtr Plan which can assume any guise a legis. wishes. In gnrl this presages a relative weakening of established cities in compet for wtr. Previously these had an effective monopoly of interreg xfrs, which meant because of the hi cost, an aggrandizement of established nuclei. Now the BR & State are bringg which ~~subsumed~~ dependent wtrs for their home territories. remote wtr to fringe areas, & primarily agric. areas, which shd tend toward decentraliza.

III a final comment on S's paper is ~~probably~~ maybe just qu of emphasis, but seems to me he accords status quo more sympathy than it merits. Raises qu whether instns inhibit xfr of wtr, & ~~I infer~~ from ~~his~~ several passages I judge he is reasonably satisfied w. way the system works. ~~This is not the place to discuss~~ Volumes cd be written on the discrs. inherent in wtr law; ~~but~~ here I will mention a few ~~related discrs. in~~ peculiar to ~~esp to~~ rural-urban compn.

Cities ~~do not~~ grow ~~compactly but~~ scatteringly. They ~~feel called upon~~ ~~to~~ claim wtr enough to serve the actual growth, & also plus undevd lands ~~too scattered~~ among growths, altho historically such lands ~~do~~ not fill in for decades, ~~during which growth~~ They usually ~~often~~ claim still more wtr to signalize & adorn ~~in amount commensurate w~~ their great expectations. Thus just as they preempt land from ag. bfr they use it, also preempt wtr to serve it.

The law allows this, specifically authoriz'g cities to reserve wtrs for future growth. [The law is also in practice ~~fact quite~~ very tolerant of LDs applying for wtr ahead of need, but cities have the privilege of jump'g such claims if undevd, ~~claims if not~~ applied and cities hv. much grtr fncl pwr ~~than is not~~ to sink ~~invest~~ in prelim. devmt to clinch claims ahead of use.] & to jump the claims of fmrs who are up to the same game but lack the fncl power to begin developmt so far ahead of use.

This wd be bad enough, but ~~But~~ the wtrs that cities dev., or claim, are not ~~not so~~ usually the ones most eco. from social viewpt. Ideally they wd. dev. the wtrs ~~most~~ handiest convenient to them, & least ~~most inconvenient~~ handy to others. But our wtr law ~~puts a premium~~ brings into play a sort of principle ~~law~~ of cptv. disadvantage. The handier their ~~convenient~~ water is to others, the more urgent for you to capture it preclusively ~~get it first~~ while the getting is good. ~~If~~ Local wtrs you keep in worthballs ~~can dev. At once~~ for the ~~growth you expect in~~ 21st cent. ~~No one else wants them anyway.~~ Neither extravagance costs you ~~what~~ as much as it costs society since state law lets you tie up valuable waters ~~ought having~~ without any charge. There is in effect a negative price on use, since use establishes future rights.

Meantime urban settlement expands beyond the limits of established wtr service agencies & new agencies ~~develop to~~ organize to dev. new wtrs, again in antcn of "ultimate" compact ~~devmt~~ urban devmt, & now w. the help of Fed & State projects.

The net result of all this is a ~~premature~~ preemption of wtr for urban use that is premature by decades & perhaps centuries. I offer SF as a horrible e.g.

(I) In a 1950 Presidential Comm. Rpt. there appeared the allegation that the productivity of wtr was often 50 times higher in industry than in ag., & this quotable quote has circ. widely. ~~It is signif. that neither study just presented chose to repeat or dev. this point.~~ ~~Researchers who~~ ap, not mpl.

If this were gnrly true it wd overshadow most other considerations in a discussion of rural-urban compn for wtr. It is signif. that neither paper repeats or develops the point. There are glaring instances of ag's ~~withholding valuable~~ wasting valuable wtrs & preempting them from higher urban uses — there is no excuse, e.g., for Imp. V's role vis-a-vis MWDSC. But those who study this subject soon encounter contrary e.g.s., e.g. S7. ~~I offer S.F. as a glaring one. Data. First they got wtr, then bypassed how to get it.~~ They also find the wasteful farm use is often approved by the city itself & fostered as a reserve while the city goes foraging ~~for other~~ to capture other supplies from rivals.

Also is ~~important one~~ situation where imptnt to dist. ap. farm mp of wtr. ~~Tautless~~ Doubtless ap of wtr inside MWD is several times higher for urban than farm use. But mp is nearly =td by fact MWD sells ag. wtr for ~~near~~ nearly same price as domestic ... [$12 & $15/af respectively]

So I applaud authors' ~~decision not to be goaded into a~~ discretion in de-emphasizing the farm-city ~~controversy~~ conflict. ~~S. brings out~~ I. wd. second S's point that what are ~~publicized~~ heralded as farm-city conflicts are usually ~~in fact~~ primarily inter-regional conflicts, ~~w. the rural-urban issue a~~ subordinate ~~gimmicks used to gain a legal advantage or stir up emotions.~~ in which rural-urban relationships ~~do~~ play a prominent role, but with ~~both~~ the battle lines drawn between regions, not between farm & city.

Thus in the celebrated dessication of Owens V., it was not the firms who waged war vs. LA. LA did not even exert its munic. prerog. of em. domain vs. them, but quietly bought them out in mkt over many yrs, gnrly at prices higher than they had any rt. to expect for farming land. It was urban landowners of Bishop who felt cheated demanded & ultimately got compn for loss of trade, of 2 dry hens, if you will, of irrd. ag. which were xfrd to LA along w. Owens V, wtr. LA, on her part, did not divide much of the wtr she had in LA, the wtr was not put to urban use immed. but sold below cost to firms. That which did go to urban uses spared other local wtrs to agric. that wd. otherwise have ben urbanized. LA ed. hv taken wtr from agric. in her own hinterland. She preferred to sacrifice ~~LA did not go to Owens V. to convert wtr to urban use, but to grow w/o sacrific'g her farm hinterland.~~ Bishop's hinterland.

I am glad too that S pointed out a 3d element xfrd w. wtr, expectations of future growth. This is a nebulous & non quanti conjectural value to quantify, yet usually uppermost in minds of those who promote or oppose wtr xfrs. It is subject to sharp all the irrationality & speculative character of land devmt everywhere & intrudes opens limitless vistas for Now approp. doctrine encourages premature & excessive claims to wtr anyway, but when combined w. need ff cities to manifest their present expectations of growth, results are & their super statutory privilege of approp wtr for future growth, results are ludicrous.

I offer SF as horrible eg. First got wtr, now try frig. what do w. it. 400 mgd on Trab., rts go back before 1913. 1934, first deliv wtr. Stopped using local sources (creek)

(in violation of Raker Act) & in 1960 uses less wtr than the local sources cd. deliver if fully devd. Further, the east-west movement of Tuol. wtr is largely counter to the flows in emphasis. Furl needs of State, ~~moving wtr from areas of relat scarcity to areas of relative abundance~~ & has to be offset by opposite xfers in other wtr plans.

SF & her partners on the Tuol., MLT IDs, have blocked every move to export surplus Tuol. wtr southwards & compelled statewide xfr agencies to leapfrog this R for remote n-n sources, tapped at lower elevations.

(II)

On another pt. I wd. register some reans. S's poses thesis is that the large interregional xfr agencies are replacing older instns for allocg wtr, & decisions w-in the orgns are now the key ones.

There is some buyg & sellg of wtr each yr up & down the FK
Is some truth. ~~E.g. priorities along FK canal dated by date of contract,~~
~~in turn by willingness to agree to enforce~~
canal, among IDs, which introduces short run flexibility lacking most river systems.

But overstated.

a. ~~Literally~~ Mostly agencies not of recent devmt, many agencies doing this for long time.
IDs, incl. cities.
MWD

b. Big agencies have not integrated old systems, which control better wtrs, (except MWD, but even that has ff. pattern of integg dev. of yore w. priorities ancient & honorable.
remote wtrs, leavg local agencies alone). agencies handling mgnl wtrs.
Largest volumes, not most important wtrs.

c. Agencies constrained by same set of laws, ~~except~~ insofar as Fagency is fed. & fed. law supersedes, but it is still law & not adm.
State Law tends regard them much like natural wtr courses, in which appropriators est. rts of use. Is some buyg & sellg each yr up & down FK canal, but not much more than takes place normally w-in a large ID.
Once contracts made, ~~the~~ Cal. cts do best to make perpetual. I applaud S's suggestion
+hese be made flexible, but gn. implm. agencies can do it w/o radical recasting of law.

d. Agencies as such can make no major decisions of long run allocns. These are still by wtr comm. (controls state bilings) wtr rts bd., cts. & legisl., heeding & congress
+he techn. advised agency staff only as it pleases them.

(II) (cont.)

More reasons why overstated case, on Δ pwr of agencies.

e. Last 8 yrs, strong resurgence local pwr. BR completely chastened. Intn planned in '20s greater than anything since.

The growth of agencies does rep. changes, all right. Previously only cities had fncl strength to undertake interregional x/prs. ~~Now~~ So such x/prs cd. only be around established nuclei. Now fncl power of Fed-& State harnessed, interreg. x/prs for devmt of whole regions w/o est. nuclei, w/o munic. pref. or priority (+the priority of State filing has superseded munic.)

Also, is Δd control by legis., less by courts. State filings a device to Δ leg. control over wth — cd. then impose city-of-origin e.g., altho only on new devmts — by requiring all devmts to jibe w. v. "CWP" phantom [never specifically laid out] which cd. take whatever form a Legis preferred.

This Δ leg. control was net. concom. of State bnce

~~My only basic diff w. Smith paper, however, is not one of fact or~~
~~My only serious int~~, ~~but~~ it is the level of aspiration. ~~S raises qu whether instns~~ (own)

III

The ~~only~~ greatest issue I wd take w. S's paper is ~~this~~, that he accords ~~accords~~ the status quo ~~so~~ more sympathy than I believe, in this case it merits. He raises the qu whether instns inhibit the xfr of wtr, & from several passages his answer seems to be "no, ~~not enough~~ they are doing an acceptable ~~pretty good~~ job." ~~And~~ He cites instances where xfrs have ben effected w-in the framework of prevailg instns.

But we are aspiring to too little ~~little~~, I think, if we ~~accept~~ are satisfied w. present performance ~~In some aspects~~ I agree, it is good, we have to do not good enough.

I concede that now & then it lets pent-up ec. pressures break thru, but that is not good enough.

A ~~Rare~~ mere fact xfr ~~has~~ occurs ~~does~~ here & there is no proof that all or most ec. xfrs ~~have~~ occur ~~will~~ nor that there that ~~should~~ do are ~~were~~ timely, or ~~better~~ the best that might ~~have been~~ be, or what they wd ~~have~~ be ~~were~~ had other more ec. xfrs ~~been~~ possible. For every xfr. cite 10 blocked. Wd. be hard to find resource whose alloc'n has changed so little in 100 yrs, while entire state ec. revolutionized. To take case he cites, M&L sale. (not urban)

over

More gurly, are several disecs inherent in wtr law,

such that ecnst can hardly contemplate it w/o sense of outrage.

S. says def. of rts has resulted from controversy

a. Def. of rts. fuzzy. Max. rate of flow yr. round. Most streams over approp, but unused rts never revoked. Uncertainty is rule, conflictg doctrines prevail, battle out each case individually. EBMUD $2m to ec of 2 mt. cities to withdraw oppn — what did they buy? 10500 vs. 1460, Smith cites.

Skip

b. ~~The~~ Only a pretense at applyg effve standards of ec. among users.

Rts based on hist. priority, so some use lavishly while others eye closely, or get too little to use at all

c. Likewise, no = sharg of variability of flow. Srs get 100% steady flow, jus absorb all the vblty.

d. ~~Is virtually~~ Barriers to xfr are hi. ~~are~~ evidenced by fact ~~that~~ the unec. allocation imposed by (b) & (c) prevails unabated, & that south has to look clear n. to Trinity R. ~~One.~~ border for wtr when there is ample surplus of underused wtr on all rivers in between, as well as in Imp. V. on Mex. border.

I lack space to describe them, but they are

inhibit x/s of wts to ~~highest~~ their most productive uses, & he ~~seems~~ cites a few instances of x/s to ~~suggest that the system he is reasonably satisfied~~ we can be register substantial satisfaction w. status quo. But an input for of costs is to define standards of ~~perfection~~ attainable ~~impressed~~ performance, & to needle the powers that be ~~into moving toward them~~ as they fall short of them. There are few ~~areas~~ powers which warrant so much needling as those that be over water.

Sum it up that there is no adequate means whereby social opp. cost of holding wtr is felt by holder, He doesn't hv. to pay for it; & he cannot only sell it, if at all, ~~to the greatest instl. barriers~~ either explicitly or implicitly

in ~~the worst~~ devious ways & over high & complex instl. hurdles.

III (cont.)

~~other~~ diseas in law

d. (cont.) Some barriers to xfr

e. Urban-rural aspects

S. is right that institns let xfr to cities be effected. But not w/o serious diseas.

Cities ~~go too far~~ do not nec. dev. most ec. wtr is 1st, or ever. Preclusive use. Law of eftv. Dev. wtr is most coveted by others, farthest from city. disadvantage. Cities led in this, now SSJV does it. Some good reasons, more bad. Is not to release good urban land, they hang on.

City orgd to capture 2dry & primary bens both --- sell wtr to ag. for primary bens. Thus out aggress furs not so orgd (tho they cd. be)

Cities exempt from diligence, can reserve for future growth & do, even at great cost to themselves.

Other privileges: em. domain, lets them export from wtrshed, Kaweah case?

Underground storage?

Cities' em. domain is one of few tools for getting xfr of wtr, but they seldom use it. Prefer to go far afield. (& it is land, not wtr they condemn)

Cities expand scatterwise, but claim wtr for whole area ⎫ when fills in. Just as ✓ they take land thus prematurely from farm use, also take wtr to serve it. ⎭ fut. expectation But then nurse (own) Urban claim jumpg only allowed for applns. This hurries furs to reach permit & license stages by drumming up factitious uses.

Arbitrary priority to "domestic" use — at margins probly lower.

Compn is for future wtr, not present. Dev. ahead of need, to lay claim. Wasteful in gnrl, but also bias, bes cities much greater waiting pwr, bond strength.

So cities take wtr from ag. before using it selves, [just as they do land]

instead of taking wtr best designed to serve those prematurely captured lands, they forage ~~range~~ afar to capture remote wtrs., keeping nearer supplies on ice as reserves. ~~To bring~~

Meantime ~~the~~ cities expand beyond service areas & new wtr agencies dev. new wtrs, again in antic. of "ultimate" devmt, often in conjn. w. State & Fed. systems.

Comments on papers by Stephen Smith and Gertel & Wollman, by Mason Gaffney, University of Missouri. Ames, Ia. August 13, 1960

Ten years ago a Presidential Commission created a stir with the statement that water productivity ~~in industry~~ might ~~be~~ sometimes be 50 times higher in industry than in agriculture.[1] If this were generally true, and applied to marginal as well as average productivity, it would certainly dominate any discussion of rural-urban competition for water. It is significant that neither paper develops such a theme. Most cities have good access to water. I applaud and second Dr. Smith's point that most water conflicts which are heralded as rural-urban ~~con-~~ struggles ~~flicts~~ are basically interregional ones.

[1] V Paley 96, Jack Barnes

Thus in the celebrated dessication of Owens Valley it was not the farmers who warred on Los Angeles, which had requited them handsomely. It was the urban landholders of Bishop who demanded compensation for loss of their trade, the secondary benefit of irrigated agriculture, which moved South along with Owens water. Much of the water went to promote farming in Los Angeles' trade territory.

I feel more reservations about Dr. Smith's thesis that "the big shift will center the competition to inter- or intra-agency conflicts." My reservations are:

1. The earliest irrigation districts included cities from 1887, and have presided over serving their growing needs ever since. Rural-urban water allocations made inside this sort of administrative framework are not a new development.

2. The big interregional transfer agencies are developing

only new waters, large in volume but marginal in value F.O.B. their sources. The sacred waters of high location value flow on as of yore under ancient and honorable priorities, ~~often unvexed to the sea.~~ unvexed by any administrative control, often unvexed to the sea.

3. The internal decision-making machinery of interregional agencies has little influence on policies, which are set and often applied to individual decisions by ultimate power centers in the State assembly, the courts, the Water Rights Board, and (on Federal projects) the Congress. Basic allocation decisions are interregional compromises battled out in the unreapportioned, gerrymandered legislature. California courts, for their part, seem disposed to treat interregional aqueducts as natural watercourses on which customers establish vested rights on the old pattern. The Water Rights Board shares this viewpoint.

4. Postwar years have witnessed a strong resurgence of localism, with the Bureau of Reclamation sharply chastened and reduced to an agency for administering court orders. The modicum of short-run administrative flexibility achieved along the Friant-Kern Canal is a pale reflection indeed of the Bureau's onetime aspirations. These, in turn, were less ambitious than the State plan of the early 'twenties which envisioned a completely integrated administration of all Central Valley waters including even the untouchable Tuolumne, Kaweah, and Kern Rivers.

With these reservations Dr. Smith is still correct that the growth of large agencies is an important change. I would emphasize the increased control exercized, not by administrative machinery, but by the legislature and Congress. This change presages a relative weakening of established cities in competing for undeveloped water. Previously the big cities had an effective

monopoly of interregional transfers because of ~~their~~ the high capital cost and long deferral of benefits, which farm finances could not bear. This made for an aggrandizement of established urban nuclei which imported remote waters to develop their dependent trade territories. But now State and Federal agencies are transferring remote waters to less wealthy fringe and rural areas, which should lead toward some decentralization of economic growth in California.

My third reaction to Dr. Smith's paper is that it accords the status quo more sympathy than it merits. He raises the question whether institutions inhibit water transfers, and in several passages ~~xxxixxxixxx~~ registers substantial satisfaction with their performance. Volumes could be written on the diseconomies inherent in our water institutions; here I will mention a few peculiar to rural-urban competition.

Cities grow out scatterwise. They claim water to serve the actual growth plus the undeveloped lands within some outer boundary of growth plus a comfortable surplus to cover all conceivable safety factors and to signalize ~~xxxixxxixxx~~ their great expectations of destiny and adorn them with conspicuous waste. Thus they preempt water from agriculture and lesser cities long before they can use it. The law smiles on this, authorizing cities to appropriate waters for hopeful future growth and to jump the unworked claims of farmers who are up to the same game but lack the finances to begin developing factitious "uses" so far ahead of need.

This would be bad enough, but worse, the waters that cities reach for first are not those that social economy would prescribe. Ideally they should use first the waters most convenient to them, and least so to others. But our water law, which grants rights

of use free of charge to the first comer, sets up a reverse incentive, a sort of principle of comparative disadvantage. The handier water is to others, the more urgent it is for you to capture it now, preclusively, while the getting is good. Local waters you keep in mothballs for the 21st century. Neither extravagance costs you nearly as much as it does society, for the State grants you the use -- or the disuse -- of its valuable waters free of any charge.

Meantime urban settlement expands beyond the bounds of established water service agencies so that new agencies arise to develop new waters, again laying claim, if they can, to enough water for ultimate full development.

The result is urban preemption of waters that is premature by whole generations. I offer San Francisco as a horrible example. She reached out early for the Tuolumne River, which is 170 miles from home with a significant vector in the direction of Los Angeles. Her filings date from the first years of the century, but the waters never reached her until 1934. At this point she put many of her local sources on standby, where they remain today. The city's own water use now, some 60 years after the Tuolumne filings, falls short of the mean annual flows of her fully-owned local sources in Alameda and San Mateo Counties, not to speak of untapped sources nearby in Santa Cruz, Marin, Sonoma and Mendocino Counties.

On the Tuolumne San Francisco claims 400 million gallons a day (mgd), of which she has installed capacity for 160 mgd and actually takes about 120 mgd (74 mgd inside the city and 47 mgd outside.) She left valuable power drops unexploited until 1956, and acted then only when faced with their imminent loss. She blocks every move to transfer surplus Tuolumne waters southeast toward areas of

shortage. The waters that do flow through her Hetch Hetchy aqueduct run counter to the general need for southeasterly movement of water and must be offset by costly reverse transfers by other agencies. All in all one finds here precious little net contribution to human welfare.

Turning to the paper of Gertel and Wollman, the authors have already ~~castigated themselves~~ *catalogued its shortcomings* far beyond my poor power to add or to detract. They present some important and interesting data which I hope they may have future opportunities to synthesize a little more tightly. I suspect that what they very modestly describe as the shambles of their failure may have greater salvage value than they have yet taken from it, if they would reconcile themselves to the necessity for drawing the most valid inferences one can from unsatisfactory data.

I like the sentiment of their penultimate paragraph wherein they visualize a sort of market for water operating within some framework of public control. My own thoughts are moving in the same direction, and from Dr. Smith's recommendation that we explore the use of flexible contracts and subcontracts I judge that his are also. On this basis I take hope ~~from~~ *in* the thought that our economizing instincts are pushing us all toward ~~similar~~ *compatible* conclusions.

Bureau of Munic. Res & Serv., U of O, in coop w 2 of Ore cities, Feb '55,

"Org. for Water Distr. in the Ptd Area".

Ptd surrounded by special water ~~dist~~ distr. which buy city water at higher rates, (wh. city gets from "Bull Run")

~~Any~~ ho no vested rt. Charge mainly water rates, light taxes.

---

Δs to i.e. value. p. 64 ass. value of water distr., Ptd area. — which covers large part of suburbs.

| | |
|---|---|
| 1923, | $3.0m |
| 1929 | 12.7m |
| 1935 | 15.2m |
| 41 | 18.3 |
| '44-5 | 28.8 |
| '47-8 | 41.7 |
| '50-1 | 61.2 |
| '53-4 | 82.2 |
| '54-5 | $91.4m |

Whew!

Water tax levies Δ from ~~$20,000~~ 19,917 — $333,529

1959

# *Farmer Risks Crop to Let Dry Town Have Well*

MORRO BAY, Calif., Dec. 9 (AP) —The municipal well of this seaside community of 4,000 ran dry and the county board of supervisors today prohibited any use of water except for cooking and bathing.

There would be no water at all except for farmer Louis Domeghini, who promptly offered the city the supply from his private well, although it may ruin his crop.

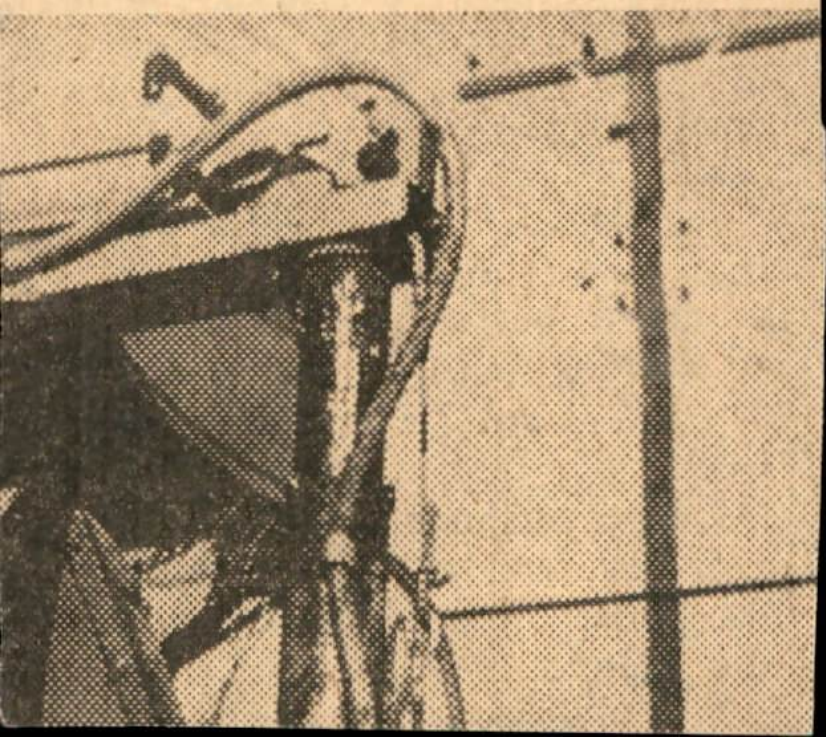
Supervisor Jesse Drake, appealing to residents to take every means of conserving water, praised Domeghini. He said the farmer told him: "The people come first."

There has been no rain in the area for nearly three months and the entire year has been one of the driest.

# COLU

Press

## leted on 5.6 Mile
## 70 Between Midt



Comments, Gertel & Wollman.

I. "The Physical Range of Competition for Water."
admit failure. ∴ will comment on Smith, w our ideas.

Accept uncritically projections of popn & wtr use from Senate Commee.
And of regional distribn.

They attempted too much, & so had to use inadequate methods, failed.

✓ Implicit assumption is growth will proceed w/o regard to wtr shortage,
& then must worry about shortage. p 7 e.g.

✓ Error to accept independent regional projections. Is well known
tend overstate regional growth, & sum of parts > whole.

II. (p. 7 – 12) "User cost of water & repayment capacity."

✓ Setting productivities for whole regions, w/o aggregating,
from sketchy methods like Ruttan's, dubious.

✓ p. 12. Use of aggregates, rather absurd. Averages, moreso.
Fuzzy. Wtr. charges are a small share of value added, but
for those industries that use a lot

p. 12 Elast. of demand shd be judged not only by ~~load factor~~ ~~share of~~ wtr bill / all costs but also by ease of using less wtr, or cost of economizing. We know steel indy. can use much less, e.g., and will!

Further, today's prices near zero, elast. will rise rapidly as move into higher prices. Today's ~~data no bas~~ elastic. no basis.

III. Range in est. repayment capacity for irr., '54, & est. cost of wtr cfd. to future storage cost.
for indl. 2 domestic users, 1955, 1 pp. 13 —

Comment, S. Smith

Like GLW, cites Owens V. Yet this was furr vs. furr & city vs city. It was in fact the cities of Owens V. that put up biggest fuss.

p 8 Too sanguine over ease of xfr, adequacy of defn. Is satisfied w. ~~pretty~~ much lower degree of mobility than is attainable.

p. 9 Just bcs are some e.g.s. of xfr doesn't mean xfr gnrly easy. Are plenty e.g.s. of thwarted xfrs.

Power of + thinkg. But a few neg. thoughts wd. improve balance.

p. 10 There hardly is a "rural-urban" conflict. Usually the battle lines not defined that way.

Pueblo rights R

Urban preferena (Fresno's claim R)

Wd be unhappy for agric. if cities' growth blocked.

Many xDs serve domestic outlets.

Rural-urban coopn. Towns in I.D. ~~&~~ S7 & Modesto I.D. ✓

I.D.s. gnrly pwr for cities via P.G.E.

S. Smith, 2.

Inconclusive, unfocused. Lacks thesis. Raises issues, doesn't resolve them.

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✓ Forms of rural-urban compn overlooked:

Power vs. irrn. Hermingham vs. SCE

Recn vs. irrn.

Flood control vs. irrn.

Navign " "

Salinity control " "

Is complementation. But after ~~stdy~~ multi-purpose, is compn.

Watershed land in cities

Law of ~~ftns~~ disadvantage — Sta. Clara; Novato.

✓ Interregional compn. E.g. Tulare ID et al vs. LSID was Visalia vs. Lindsay, not urban-rural, a red-herring.

Wtr rts. not propty bcs not taxed as such. Is vain to say they are taxed indirectly via l.v. they augment. Streets also A l.v., but are public property.

When cities go far afield for wtr it is often to spare water for their own agric., which they regard as part of their ec. base. Thus wtr is not being taken from ag., but xfrd between regions.

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To what extent has East's willingness to support BR reflected desire by dominant urban interests to ~~inhibit~~ tie up wtr in agri. & inhibit industry?

Issue — will urban use be more or less consumptive per acre?

Urban use will create new acres, & require wtr where was no agri'c. before.

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Recreational use

Cities introduced new element in wtr compet. by going farther afield than others for wtr. I know of no I.D.s. that went so far to preempt wtr, or showed same pref. for remote over local sources.

They seem to have some de facto preference in exporting from wtrsheds of origin.

SCVWCD is pulling this now, but is partly urban. (It is 3d gpt. urban wtr agency around Bay, incid.)

Tulare City agencies have preferred BR wtr to develop their own, but here element of subsidy loomed large. But the other was also a factor.

Long interregional x/fers are not gnrly ec. for agric., & ag. not gnrly orgd in large enough units to organize & finance them. Also, does ~~mu~~ munic. pref. let munic. export from a wtrshed where others cdn't, e.g. LSID? Wasn't there a gn there of their trying to establish domestic use, use em. domain? Does it let munic. store underground in one area for use in another where ag. cdn't? — e.g. S. Fernando V.?

Not until you get south to LSID has there ever been an effort by agric. at interregional x/fr. And that was clearly a case of acute need, having first genuinely exhausted the local possibilities. And they were blocked!

Simi V. tried to tap Sta. Clara, again, was real need.

So it was cities that introduced the interregional x/fr of wtr. Ag. took it up later when subsidized by BR & FRP. (CVP).

✓ We can reasonably posit that wtr instns shd achieve as hi a degree of flexibility as prevails in xmsn of electric pwr, e.g. Fall far short, in fact.

S has pointed to several instances where wtr has bn xfrd w-in framework of exist'g law. But fact that ~~ec. pressures sometimes break thru~~ wtr instns sometimes let ec. forces break thru to effect xfrs occur in what appear to be roughly ecl. directions ~~the claying web of instl restraints~~ by no means ~~demonstr~~ satisfies me that those ~~restraints~~ instns ~~are~~ ~~not~~ even ~~tolerably economical.~~ ~~innocuous. nor~~ do not, delays a permanently, frustrate other ~~many more~~ xfrs, nor that the xfrs that do occur are ~~the best~~ as ~~the most~~ ecl ~~ones~~ as they might be.

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How much land does it take to catch the water needed for an urban area? If it uses 2 a/a, that is not much more than falls on it, if they cd. catch it all.

But EBMUD, for its 230 mi², [which probly includes its own resv. land of 40,000 a. or 62.5 mi²] has mt. wtrshed of 575 mi².

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✓ There is a medium, optimal distance to go for wtr. But instead cities go a, Too near, waste urban land; b, Too far.

Vicious circle, when hang onto old wtrshed too long, settlement bypasses it, clutters up optimal ~~res~~ sites for terminal resvs further out. In turn this Δs pressure to cling to old site, perpetuates the diseconomy.

Importance of legislature shown by growing troubles of SF.
Losing weight, ∴ its unused wtr rts. open to attack.

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Cities "sell" wtr via annexation charges, but is bilateral mopy.
& some fringes counter w. own systems. (e.g. E. Bay)

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Smith says city just takes own irrn. wtr. But LA keeps pushing fr. fringe out, supplying w. premature wtr.

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Tendency to hold more wtr than need. To begin devg more than need. Cycle. Several reasons for it.

To impose disparate standards of wtr ec. on diff. areas. One wastes while another wants

Never need worry cities will take much wtr, But will pay well for what they get.

You get the wtr, then think of some way to "use" it. Treat it as free, worse, since use establishes future ownership, negative price.

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Cities have various preferences: priority jumps other applns; eminent domain; (pueblo rts) no diligence. Only the last is gnrly imptnt, & much used. Diff. of degree, not kind.

Outline comments on Smith

Interesting, no comment on rural preemption of wtr from more productive urban uses. From ~~the~~ widely-quoted epigrams of Kaenig. & 1950 Pres's Comm., one wd. think farm wtr ~~use~~ priorities were a prime barrier to urban growth. Our speakers do not find it so, & I agree. There is preemption of wtr by lower uses w. higher priorities, but the lines are not essentially farm vs city.

If ag. preempts, is not bec is ag., but is older occupn., & system based on hist. priorities. ~~Sometimes it is city~~ But are old cities, & expanding agric.

S.J. is horrible e.g.

Battle lines in wtr conflict are not frm vs city, but region vs. region.

In this essential & continuing struggle, other issues are largely subordinate gimmicks to aid one side or other.

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$\frac{\$1}{10^2} \times 10^6 = \$1 \times 10^4 = \$10{,}000$

$3\frac{1}{2}$¢ per 1000 gals = $3.50 per 100,000 gals

= 10.50 per 300,000 gals

= c. $11 per acre ft.

.010,000

✓

One reason cities range so far for wtr is emphasis on purity.

This bears some weight in real decision makg, & whole weight of public ration alization. The value actually attached to purity is betrayed by fact S.F. wtr supply "failed on a no. of occasions to meet the USPHS drinkg wtr standards," due to poor handling.

CC Canal, cap. 200 mgd, '53 ave daily diversion 31 mgd, = 1/6 capac.

Agric. in suburban areas, w. supply not threatened by cities but contrary.

Cities import remote wtrs & dump surplus on agric. while waiting to grow.

2 diseco create an economy. SF cd supply Sta. Clara V., but price too hi, so they dev. own sources.

Approp. doctrine encourages premature claims anyway. But urban expansion makes it worse. Becomes a necessary expression of ~~inflated~~ aspirations for growth, greatness, of expectation. confidence in future expansion,

EBMUD expands its boundaries & reserves wtr for ultimate devmt. But before it fills in, cities dev. outside boundaries. They reserve wtr too. E.g. Pleasanton Twsp. wtr dist. Being smaller, weaker, they dev. the local sources, also reserving surplus for expansion. Result is to reserve, & perhaps to dev., much more wtr than aggreg. demand.

A rational reason for cities' importg remote wtrs wd. be to release nearby wtrsheds for higher uses. But they hold on to them anyway, way in excess of need. They yield little wtr, are more than nec. to protect resrs, wd. be better if such protection needed to dev. these, move resrs out a little.

Cities grow leapfrog, diffuse. Wtr service agency assumes area will "ultimately" fill in. Claims wtr. ∴ enough to serve whole area.

EBMUD e.g., recent claim for Δl 125 mgd (= 375 afd)

SF HH div. has rts to 400 mgd on Tuol.

Present capac. of aq. 150 mgd

Present daily demand c. 121 mgd = 363 afd, of which 60 mgd or ± now derived from local sources formerly Spring Valley Wtr Co.

HH wtr cannot be used for irrn — but SF wtr is.

Eden L Wn. Cty Rpt.

Scattered settlement means CWDs apply for wtr for many uses. Do they then get munic. priority on all? Pleasanton Twsp WD e.g., & Ala. CWD. Rural areas might well encourage premature urbanization to get some of that munic. priority, as well of course as tax base etc.

EBMUD, State permit for 200 mgd from Mok, applied for Δl 125 mgd.

Produces 25 mgd locally. (or does it? Raines' talk says it "cd. be devd.")

✓ — They now produce 12-15 mgd locally, can Δ to 25 mgd)

Present ave. daily demand 115 mgd, "ultimate" 350 mgd.

('58, Raines says use 130 mgd)

W. inadequate storage, apply for daily flows to meet ~~max~~. peak demands.

Peak demands, ultimate popn., min. flow ... safety factors galore, all free.

Est. 57. supply, local sources.

Arroyo del Valle 26,000

Arroyo Hondo

Arroyo Mocho

Alameda Crk (above ~~the~~ are trib.) 96,000 afy, of which 69,000 flows to SF Bay, "based on present impairments": p. 11, D 894.

Los Positos Crk.

San Mateo Cty sources:

Pilarcitos Crk. (½ moon Bay area

San Francisquito Crk.

San Mateo

San Gregorio

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Until 1934, SF got along w/o Tuol. wtr. Pop. has hardly ∆d since then has it? She stopped using other sources, held them in reserve. She avoided invading ~~the~~ nearby agric. etc, left local sources for local ag. to dev. Thus under guise of domestic need, xfrd wtr from one farm area to another. — Ala. & Sta Clara Cties.

re, Smith, 5

21. p. 20, compn. takes place not thru wtr rts but thru adm. machinery, cites Fresno case. I hope so. But D935 disallows 9e contracts, insists on appurtenance, BR is trustee. Altho USSC earlier rejected trustee theory. So is moot, & wtr rt. not dead.

To say trend is toward greater role for large interregional xfr agencies is dubious, last 8 yrs. Resurgence of local prerogatives, weakening of BR. No longer dream of degree of integration aimed at in '30s, which in turn was less than planned in '20s.

Fresno case, decision was made by Wtr Rts Bd., not BR. And when Fresno does contract w. BR., Bd. insists this establishes wtr rt. Smith thinks large orgns will hold wtr rts. But contracts for wtr surely impose perpetual obligation on supplier, priority prevails, so there you are.

22. Appland recommendation, p. 21, we explore means to keep flexibility in contracts.

23. How might use price system to arbitrate inter regional compn.

re Smith, 4

18. Says big shift is to ~~b~~ big agencies. But this is only unapprop. wtr. Better wtrs still tied up by small graspers. Allocation of that wtr hardly affected by big agencies, which overlay, bypass, parallel them etc. CVP unable to absorb & integrate preexistent agencies. Some IDs did absorb smaller mwcds, but a, Not a predominating pattern; b, Fed & State projects not doing so.

19. 11 canals opposite directions, hardly approaches ideal.
Wtr can move, good, but not good enough.

18. True, Fresno case involved reallocating M&L waters. But exceptional. Also, p. 83, they are not ruling on validity of Exchange & Purchase, but are satisfied that unapprop. wtr occurs. So they leave impression they are basing their decision on power over unapprop. wtr. But this is equivocal, since w/o M&L wtr there wd. be none.
So they are trying to resolve this case, & simul. disclaim authority over waters already approp.

19. How sell approp. wt? If have surplus, sell it, w/o drying land, are admitting it is surplus.

20. Uncertainty from conflicts among agencies. E.g. Bd. of Cal. trying to discountenance 9e contracts

Re Smith, 3

12. p.12 too light treatment of whether can change purpose of use w/o losing priority. Wtr rts. Bd. declares it lacks jurisdiction over injuries re changing purpose of use, D 935 p. 82

13. Re adjudicating wells, big weaknesses are prorating according to histories of use; & prohibiting new wells. p. 12.

14. p. 13. Cty. of origin law orig. supported by mt. cties vs. valley flow. Then by wet vs. dry, not rural vs urban.

15. p. 14 States exemption from diligence not so fundamental a diff.

16. No mention role of P.G.E., etc, major influence.

17. Ref. to wtr as pvt. prop., p. 16 not squared w. D 935 re Fresno, cites WC Sect. 102, "all wtr . . is prop. of people . . ."

Points re Smith, 2

8. SJV cities use gnd wtr, or are in I.D.s, thus get surface wtr.
   Fresno pirates its gnd wtr, from F.I.D.

9. Gin Chow vs. Sta. Barbara, rural vs. urban, [also rip. vs. approp.]
   Peabody vs. Vallejo .. .. .. ..
   Hermingham vs. SCE .. .. .. ..
   p. 11 Smith to contrary.

10. What is thesis? Search for positive statements, other than incidental allegations — that may be all there are.
   A. p. 13 Big change is to shift conflicts to interagency ones. [No, conflicts are still regional, & agencies are subject to Wtr Rts Bd., legislature, & courts. Also just unapprop. wtrs, see 18.]
   B.

11. Urban requires less wtr/acre, alleges p. 11. This wd. vary greatly by areas. Humid unirrd n., e.g., urban takes much more, esp. if pulp mill or other polluter.

Points to make re Smith. Look for points to applaud.

1. Too content w. status quo. Resigned, acquiescent, complacent, tranquil. Too lacking in thesis.
2. Examples of xfr he gives were actually tough, took too long, and were not necessary if more ec. xfrs had been feasible. Leapfrog pattern bec instl. restraints block xfr until threshold of tension crossed.
3. Second his observation, applaud it, that "rural-urban" compn is not really that. Wish he had strengthened statement, & not lapsed re city-of-origin law, p. 13.
4. Implnt aspects I wish they had discussed more.

   Complementation, rural-urban. Shd. be strongly stated, fmrs interest is for cities to thrive. Cities have recognized opposite, willingly bore Compn of irm vs. power. flood control, navign, salinity control ag. burden. Fmrs less so

   Compn for use of storage

5. Applaud for not parroting idea agric. is keep'g wtr from cities. Cal. cities get preferred treatment, reserve ahead of use, more than any. Problem is pref. of old established cities over new ones. Are e.g.s. of low-prod. ag. uses keep'g wtr from cities, e.g. Imperial ID. But also cities tie up wtrs, keep from ag., e.g. S.F. on Tuol.
6. Need more on wtr quality requirements for munic. use. Probly cities shd get to use ground wtr, & gnd wtr storage, bec. of filtering effect.
7. L.A., is still much wtr used for agric. L.A. has preferred to import remote wtr. Not bec less conflict, as contains. L.A.'s conflicts re Owens, Colo., & Fthr are among most celebrated & costly in all history.

Lightened. City's bread cast on wtr returned 10-fold.

Special urban disecs. to mention.

Pueblo rts, another discordant element in an already pluralistic & inconsistent body of law, create further uncertainties.

✓ Urban concern over hinterland prevents xfr. Suppose surrounding ag. has surplus, is hard to buy just the surplus part. All or nothing. Must take ag. lands completely out of production. Also, applin units not divisible.

Urban prerogative to break into line is only for unapprop. wtrs? presence Check it. Holsinger p. 18, "there must be unapprop. wtr." ~~If so~~, encourages agric. to put to factitious "use" prematurely to establish sound priority. It is only the "application for a permit" that jumps priority, §§ 1460. ~~Presumably~~ If a license has been granted to agric. it retains priority.

Urban priority conflicts w. others, e.g. Fresno case, judgement of Bd. prevails, becomes great uncertainty. Priority of state filings, 1050g conflicts w. 1460, Bd. had to use judgement.

Scattered settlement, pattern frozen

City preferences:

a. Reserve further ahead of need.

b. "Domestic" use gets pref. whether actually higher or not (& at margins it may very well be lower)

c. Flood control gets subsidy, Fed. Also recr. Navigation

d. Navign gets priorities?

City liabilities:

a. Victims of price discrim. from BR

b. Pwr & recreation get lower priorities?

c. City gets rip. rts only to lands it owns itself. (But it cd. buy them up). An ID wd have same problem, but a ripn. firm wd. get whole rt.

Cities take wtr from agric. sooner than nec, just as they do land. By failing to develop the nearer sources first. They put potential urban values on the nearer sources, thus discouragg devmt for farm purposes. But diff. wrinkle w. wtr, bcs fmr must use in order to claim. So I know of no e.g.s. Maybe Clear L., they hv. devd enuff to lay claim, now just keep min. improvements going. But must be such a problem, bcs licenses are not granted until after wtr put to use. So who will risk funds for agric. where he may be shot stopped by a munic. pippin? only state bldngs are exempt from this hazard. But probly many new devmts are hastened along to estab. history of wtr use, in antic. of grnd wtr proration. E.g.?

If ag. might lose priority by shift to urban use, might keep land in ag that shd be urbanized, city jumps out to claim new wtr.

Wtr problem of urban expansion much eased in arid states, vs. humid, where city takes over wtr already devd for farm use. But is exceptional City usually expands onto land not previously irrd.

Correlative rts., like rip., you have to use on the land from which pumped. This limits use of grnd wtr storage. Tho maybe cd. get approp. rt.

Urban scattered settlement poses tough forecasting problem

Speer in wtrshed lands.

BR discrims vs. cities w. higher rates. But are still way below EBMUD, 3 vs. 16 ¢.

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San Antonio Crk, S.J. plans dev. 20,000 afy for $1m, [applin 18,475]

sounds cheaper than HH.

N Main CWD to get 10,000 afy for $4m from Russ.

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~~HHD~~

MWDSC can delivr 650,000 afy, over 3,000 mi², pop. 6.5m

Turlock ID does ~~divert~~ divert 500,000 afy. ~~for~~ for 160,000 a. = 250 mi.²

So MWD uses 1/10 as much per acre? No, they don't really serve all that. & the 650,000 is just Colo. R. Jensen or someone ests they use 1.4 afa.

Now ~~Ariz~~ Calif. has lost Colo. suit, San Diego may suffer.

S.D. cd. get Imperial V. wtr, tho. But I judge it wd. have to condemn land (not wtr.)

If so, there is a big bone in city-farm compn for wtr. City can't condemn farm wtr w/o buying land, hence cannot get surplus wtr by itself?? Check that.

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S. Smith says State filings exempt from diligence. I say munic. filings are too, bec rt. to file for future use, ^Wtr Code PP 106.5, 1203, 1460-64

PP 1460 is one givg priority to munic. applns.

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Munic. priority is largely a gimmick used in interregional battles.
LA uses it to import wtr, much of which goes to agric. indirectly.
SJ does same, but motives less clear.
In gen'l, ag. is beneficiary, gets wtr imported by cities to reserve for future safety or speculation, city forces it. Complementary relation, stress.

This reason may be legit, but sometimes it is an net unec. xfr masquerading under sanctity of "domestic use" priority.

A 2d reason, almost wholely unec., is desire to lay early claim to wtrs that others may want urgency for precusive devmt.

Given an equally attractive choice between devg nearby wtrs or remote ones, 2 wtr sources, one of which is also convenient to another user & the other of which is not, a city will rationally choose the former, & many cities do. Bes by devg the source w. an alternative use first they preempt it from others, while the 2d source is still theirs to develop at leisure.

Thus San José ...
and Novato

Here is an unec. system that economizes backwards. Law of dftv. disadvantage.

A 3d reason is the law is not sensitive enough to recognizes differences in degree of use. There is a threshold of use, above which wtr is in use, below which not. Thus lets south import wtr from 100s of mi. away, but doesn't let one southern area get wtr from another southern area, even the latter xfr far more ecl. Thus prevents ecl allocn & full use of south's wtr res & thus forces to import before nec. The standards of dftve ec. which law applies give too little weight to conveyance costs. Biasses devmt toward imports of remote wtrs that are below threshold of "beneficial use."

4th reason is change of use threatens loss of priority. p. 12, S. too light.

Might be other urbcen applicants ahead in line.

Smith thesis, shift from farm to city can occur w-in framework of ~~law~~ instns. does & will

He is right not to cry that fmrs are keeping wtr from higher uses in cities. Cities have means to get wtr, & when it comes to hogging wtr ahead of need no fmr can

I agree. ~~But I ~~ed.~~ to wish he had given more emphasis to discrs attached~~ hold a candle to S.F.

~~I will do so.~~ (do so)

~~But the treatment leaves somewhat too complimentary a picture of~~

~~the ec. efficacy of wtr instns.~~ I only wish he had given somewhat more emphasis to the discrs inherent in the process under present wtr law. Not that ecst must always assume role of gadfly, but wtr instns fly in the face of so many basic ec. truths that the ecst can hardly study them w/o heels ~~who does not betray~~ some sense of outrage. ~~is hardly doing justice to his subject~~.

W. cities, is no gn. they can x/fr wtr; trouble is x/fr too far.

A basic discr. inherent in law is no price attached to holding wtr, & priority dates from filing claim. premium on premature inflated claims. Is worse W. cities bes policy is let them claim further ahead than fmrs. Thus SF has tied up large share of Tuol. since well before 1913, Has completely kept it from being integd into CVP & otherwise exported south ben in excess of her needs then, now, or in future.

True, as to prematurity, cities filing get priority. But not as vs. other cities

A ~~feature~~ wrinkle peculiar to urban compn is the pref. of cities to go very far away for wtr, much farther than is physically nec. One reason for this is the desire of cities to foster agric. & recreation in their dependent trade territory. L.A. e.g. cd. have acquired wtr from surrounding fmrs w/o more legal grief than has ben involved in her epic struggles over the Owens, Colo. & Colo. rivers, but has preferred to tap remote sources and bereave other cities of their farm customers. S.F. actually deactivated its Pleasanton wells from 1934. (p. 5, D894)

Cities can force much further future than ag. This contrast creates diseconomies – cities get there first, & out of harmony w. overall plan for region.

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Rips. vs. approps., cities wd. favor approp., hav'g few rip. rts. (but SF has large ones)

City of origin evidently gets priority over munic. priority, # in re LA vs Sacto. V.

But this is due to rotten boroughs, will not survive reapportionment.

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Coastal SM City recm 57, 8-55, bldg stopped by wtr shortage. They have own Dist., No. Coast CWD, "hopes" to dev. local source, Pedro Valley Crk.

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Compn gets very complex in Bay area, Reber Plan etc.

D 858, 1956 Cal W+Rts Bd. released State filings on Mok. to EBMUD.

bes of munic. priority, Sec. 1460.

This implies EB projects are consistent w. State wtr plan.

In gnrl, tho, no one knows just what is State wtr plan, so vests great power & discretion in W+Rts Bd.

State filings & plan must protect areas of origin.

EBMUD case, munic. pref. won over city-of-origin. (for $2m per city)

Fresno .. . . .. lost to "public interest".

Each case individually fought out, political pressures big role.

Antioch suit vs. irrigators up Sacto. is important form of rural-urban compn.

Surly, cities are downstream from agric., probly. But are often upstream approps.

'57, Stockton wells salty, sought to import from well fields near Manteca in SSJID. But negotiations failed, & city felt ID suit wd. win in courts. Mc Gaughey & Ehrlich

Has been much noise about ag. keep'g wtr from cities, but ? find few e.g.s, except voluntarily by cities, to rationalize imports.

No doubt are e.g., tho, if they have to buy the land to get the wtr.

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Coopn now. city pays for dams via hi pwr rates, ID supplies tax exemptions (?) & gets free wtr.

9.D.s are exempt from cty. taxes, but munic. wtrshed lands are not. How come?

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Don Pedro wtrshed 1540 $mi^2$ = 985,100 a.

On Tuol. itself, is close coopn, & swapping, between S.F. & I.D.s. Thus S.F. is building Cherry V. storage to supply release commitments to I.Ds., so can export more from HH.

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Around Sacto. is not all gnd wtr ag. Was N. Fk. Ditch Co., bought by San Juan Suburban WD for $621.000, 1-55 WWN, in 12-54. 33,000 afy.

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In Consol. ID are "Church Lands" w. priority.

In CVP system are CCID, 3 other Canal Cos., & Madera ID lands, on old priorities.

In Tulare ID are 2 areas, one formerly indep., Packwood Canal area.

to larger units do not completely absorb old.

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Character of country affects town - Dimba & Arvin

When a city "claims" & begins to serve lots of land, aspires to a high growth, builders will tend to build up to this aspiration rather than current demand. This is good in part, but breed general miscalculation, cumulative overbuilding.

Re wtr, cities claim it not for use but as basis for aspirations of unlimited growth, as one essential in creating limitless confidence in future. Build'g city is bldg. complement, all must have faith others will proceed. In arid place, expansionist boomers create that faith by grabbing wtr ahead.

S.F. sells wtr for irrn. (contrary Raker Act) p.1, 1956-57 Rpt. Comm. Div. SFWD

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Remote supplies, greater risk of line rupture, war damages etc.

Long lines dev. land along them prematurely. E.g. S.F. 3d barrel goes around S. end Bay instead of under like 1&2, thus makes wtr available to wide area.

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Tatarian paper. S.F. adds lime to wtr (& fluorine) & mixes it w. local wtr bec it is too soft. Too soft means acid. Corrodes pipe lines, badly.

SF 19th cent. reservs, 3 in SM Cty, still in use! i.e. obsolete.

SF doesn't filter its wtr. Therefore must keep huge watersheds — closed to recreation etc.

Before 1900, laid pipeline under "and across" Bay from Ala Cty. (so ed. have crossed Golden Gate)

167 miles, HH to SF.

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"Domestic" use outranks "irrn"; but irrn. outranks recreation. This may not always be ecol. E.g. lower Russ. R.

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CC Canal supplies indl. wtr at 3½¢ per 1000 gals, = c. $11. per af. of EBMUD rate of 16¢. Canal wtr not potable & EB raises bogey of crossing lines by mistake. But it looked in 2-24-52, just before election in Richmond, as tho Richmond wd. sign w. BR for CCC wtr for industry.

Thus EBMUD prepares to serve large area but loses customers!

EBMUD.

1957, 34 yrs after filing on 200 mgd, taking 115-20.

1940, 17 yrs " " " " " 42

S.F. is worse of course. But EBMUD makes interesting contrast, to show S.F. waste unnec.

EBMUD has 33b gals terminal storage

SF - 62b " " "

EB has 200 mgd sts, uses 115 or so

SF " 400 " " " " " "

EBMUD has ~~10,000 - 30,000~~ 40,000 acres watched, local (Raines ~~not liars~~ said 10,000 must be ignorant or malicious)

SF - 63,000 " " "

(at $1,000/acre, worth $63m, pretty costly storage, & it may be higher today)

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Urban systems differ from ag. in being 100% demand systems, instantaneous. Hence require more terminal storage, in area of hi land prices.

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H.E. Lloyd ests. SF has put $400m, probly b.s., to justify hi rates. Probly much of + this is from customers' invmt, count'g cap. invmt as a cost. into its wtr system, & replacement value is $1,000 m. 10-51 WWW. Ass. value SF's ST was $1.3b.

1956-51, SFWD sales = $10m in SF or 71%
+ 4m outside or 29% (sell wholesale, hence less per cu ft.)
Σ = 14m

SF "Commercial Division" expenses run c. $650,000/yr., or c. 5% sales.

- p. 11, 1956-57 Rpt. of Comm. Div.

S.F. gives free wtr to other city depts.

SCVWCD has issued $13m bonds since formed, '29. – Roll. 6-5-58.

[cf. EBMUD, $300,000,000 +.]

Even for DM wtr over Pacheco Pass, for 60,000 afy wd spend only $25m.

[Thus EBMUD & SF are paying three more for their pure mt. wtr.) (SCV has advantage of underground storage, here shown to be great)

S.F. has 23,600 a. in SM Cty, or 1/12 the cty.
24,600 a in Ala. Cty.

S.F. has rts to 400 mgd on Tuol. (= 448,400 afy) = c. ¼ mean flow.

Present facilities can dev. 163 mgd, 5-22-58. Joe Martin. (They use 121 mgd, outside & inside)

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Joe Martin was very frank. In SF service area there are lots of SL local sources to tap. Fears loss of rts. on Tuol. if they do.

Make S.F. the horrible e.g. – it is.

Local cties tax S.F. wtr propty, S.F. counters by Ag wtr rates, vicious circle until cties get wtr elsewhere. S taxes at will.

Ability of Ala. Cty Ds. to raid SF wtr probly due to SF loss of control in Sacto.

S.M. Cty. is after S.F. wtrshed, 1/12 cty. to open up to develop.

EBMUD charges for annexation, also new areas provide own distribn.

(Result: some areas will dev. own sources rather than pay)(so EBMUD never will dispose of extra wtr, any more than SF has)

EBMUD, storage of 68 b gals = 68,000 mg now on Mok.

Cf. 130 mgd usage, = 47,450 mgy = c. 2/3 storage capac.

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Cannot rely much on city replacg irrn. as expands. SF & EB, all new wtr demands.

Per acre use:

EB: $130 \text{ mgd} / 230 \text{ mi}^2 = \frac{145{,}730 \text{ afy}}{141{,}000 \text{ acres}} = \text{c. } 1 \text{ afa.}$

But not all that $230 \text{ mi}^2$ is ~~now~~ developed.

Per capita use, $\frac{130 \text{ mgd}}{1 \text{ m pop.}} = 130 \frac{\text{gals}}{\text{day-capita}} = 41{,}450 \frac{\text{gals}}{\text{yr-cap.}} = \frac{.14 \text{ afy}}{\text{cap.}}$

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4-4-58. Calaveras Dam overflowg at record 5150 sf = 11,500 af day

'52 " " 3400 sf

so is not 100% developed at all.

~~EB~~ [11,500 af is a year's supply for 82,000 people]

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SF per acre use. $\frac{74 \text{ mgd}}{15{,}300 \text{ acres}} = \frac{82{,}954 \text{ afy}}{15{,}300 \text{ acres}} = 5.4 \text{ afa}$

SF per cap. use, $\frac{82{,}954 \text{ afy}}{800{,}000 \text{ pop}} = \frac{1}{10} \frac{\text{afy}}{\text{cap}}$. So SF uses less per cap. & more per acre than EBMUD

But no one likes to liquidate an empire, so they think of good reasons for retaining

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S.F. ~~uses~~ furnishes 47 mgd outside city, & 74 mgd inside. 12-6-57, J. Turner.

$\Sigma$ = 121 mgd = ~~c. 370~~ 371 afd = c. 135,400 afy.

Inside city itself, uses 74 mgd = 227 afd = 82,850 afy

1 mgd = 1124 = 1121 afy

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EBMUD. '58, 230 mi$^2$. At 16/acre, wd. hold 16 × 640 = 10,240 per mi.$^2$ Say 10,000/mi$^2$. That's 2,300,000 = 2.3m pop.

Est. will expand to 400 mi.$^2$, (or 4m pop.)

Raines ests "ult." need = 350 mgd. Is ∴ filing now for 200 + 125 = 325 on Mok., figures remainder from local sources. (excuse to keep land?) I.e. is filing now for ult. needs for larger area. (parts of which are dev'g own wtr, but maybe they figure that in.) w/o figuring any inhibition of use by Δ price. Contrary, they figure Δ per capita use.

Now serves c. 1m pop. They are filing now for c. 3× their present pop, sums it up. Altho much of their territory is already filled in & will not Δ demand. They are antic.g many fold Δ demand ∴ in suburban areas. Thus they are a, Tieing up the wtr
b, Dev'g land far ahead of demand.

Excess capacity in wtr. Cities are more choked on streets, ~~water~~, power, &c. Get go ahead for wtr, invest money there. To keep it from being claimed by others.

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Major points re Smith

~~1. Compn is interregional.~~ City & farm cooperate.

2. Suggest more emphasis on:

skipped
- City-farm coopn
- ~~Disco. inherent in wtr law.~~
- Compn for aspects other than wtr supply. (also coopn, multipurpose)

~~3. Less emphasis on shifts~~ to interregional xfr agencies, or diff. emphasis.