

FACT SHEET AND FREQUENTLY ASKED QUESTIONS ABOUT A POTENTIAL SALE OF UCSD EFFLUENT

FOLLOW-UP TO BOARD MEETING OF MAY 8, 2013

Special Board Meeting of May 8, 6:30 PM at UCSD Northeast Plant:

On May 8, 2013 the Urbana & Champaign Sanitary District (UCSD) held a Special Board Meeting to discuss a general policy regarding selling the treated sewage, or wastewater treatment plant effluent water, produced by UCSD. In addition, UCSD staff discussed a potential effluent sale to Cronus Chemical, a urea fertilizer plant that is considering locating near Tuscola. People who provided written questions associated with this meeting were to be provided written responses. Responses should be received by June 3.

Is there a proposal involving the coal mine that may locate near Homer?

There is no proposal involving UCSD and any coal mine.

In the spring there was one meeting between Sunrise Coal and UCSD staff to discuss if a proposal would be possible. There were also a handful of phone calls to coordinate this meeting and to arrange a second meeting that was ultimately scheduled for the afternoon of May 2. Before the second meeting was held, the UCSD Board directed staff to use the meeting of May 2 to end further discussions and advise that UCSD would not consider a proposal at this time.

There never was a proposal presented for staff or Board consideration. The Board decided that if in the future a proposal were ever submitted before the Board considered it, there would be a Special Board Meeting set aside to specifically discuss the proposal. Such a meeting would be announced and advertised via news services.

Is there a proposal to sell UCSD effluent to a chemical plant?

Yes. Additional information is provided below.

Volume of Potential Sale to Cronus Chemical:

Cronus Chemical is seeking to purchase 6.3 million gallons per day (MGD) of UCSD effluent. This is equal to 4,400 gallons per minute, 70 gallons per second and 2 billion gallons per year.

This is about 1/4 of the 8 billion gallons of sewage that UCSD treats in a typical year. During wet years it will be 1/5 to 1/6 of the total flow into UCSD. During the driest months of dry years it will be about 1/3 of the total flow into or out of UCSD. UCSD does not currently have any storage facilities on site for influent or effluent.

Comparing this to rainfall, the UCSD service area includes Champaign, Urbana, and Savoy, encompassing about 40 square miles. In a typical year 30 billion gallons of rainfall lands on the UCSD service area. Champaign County encompasses just under 1,000 square miles. 700 billion gallons of rainfall lands on Champaign County annually, when there are normal rainfall amounts.

Concern about drinking water supplies:

Any sale of UCSD effluent would not harm the drinking water supply. Every gallon of effluent sold would be protecting the Mahomet Aquifer by satisfying a need for water without using new water from the aquifer. All UCSD effluent is already removed from the aquifer and cannot be intentionally returned to the Mahomet Aquifer. The Illinois Environmental Protection Agency would not permit a recharge plan using sewage treatment plant effluent.

Impact upon Mahomet Aquifer Recharge:

A sale will also not impact the amount of water recharging the Mahomet Aquifer. The raw sewage you provide UCSD is water that is already removed from the aquifer. UCSD treats the sewage and the resulting effluent is discharged into either the Copper Slough or the Saline Branch of the Salt Fork. This water flows out of the county in a few hours. It is not held here to recharge the aquifer.

In addition, the UCSD treatment plants are not located so that they impact the rate of recharge of the aquifer. UCSD's Northeast Plant is outside of the Mahomet Aquifer so any incidental draining of creek water and effluent into the ground from the Saline Branch will not impact the Mahomet Aquifer.

UCSD's Southwest Plant is still within the Mahomet Aquifer drainage area, however the Copper Slough and Kaskaskia River which receive the flow from the SW Plant, leave the Mahomet Aquifer recharge area in about 5 miles. Since even if there is a sale of UCSD effluent, UCSD will continue to discharge to the Copper Slough, the rate of recharge will not be changed by the sale.

Can UCSD effluent be pumped into the Mahomet Aquifer or stored in lagoons to increase the rate of recharge the Mahomet Aquifer?

No.

Currently there is no lagoon or retention pond intentionally holding UCSD effluent in a way that will encourage the recharging of the Mahomet Aquifer. If UCSD ever builds a lagoon for some purpose, it will be required by IEPA to be lined, so that there is no draining into the ground. The concern is the trace pollutants which are in UCSD effluent would be a source of contamination of the aquifer. UCSD does not produce drinking water. Ratepayers do not pay UCSD to produce drinking water, nor should you.

If there ever were a proposal to build a lagoon separate from UCSD to encourage recharging, it would not be allowed to be filled with UCSD effluent. Again, the Illinois EPA would prohibit this due to the concern about potential contamination.

A more practical solution is to use rainwater for any enhanced recharge plan. It is a better and legal solution. Rainwater is cleaner and more plentiful. There is 50 times more rainwater than effluent in the county.

What will be the impact upon area streams during a normal year?

When we have a normal amount of rain, we see 2 to 4 inches of rain per month. Over the UCSD service area, this is 1.4 to 2.8 billion gallons of rainfall per month, or about 50 to 100 million gallons of rainwater. UCSD's total flow rate is about 20 to 25 million gallons per day. If 6.3 million gallons per day of the UCSD effluent is sold, the impact would be on par with the amount of rainfall falling upon the Champaign, Urbana and Savoy changing from 3.2 inches to either 3.1 or 3.0 inches in that typical month.

If you view UCSD's effluent as a county-wide resource for water and flow in the local creeks, the impact is about 1/25 as great as it is for the metropolitan area alone. So the sale would be under one one-hundredth of an inch or an extra shower happening, or not, every month.

What will be the impact upon area streams during a drought year?

When we are experiencing a severe drought, such as in 2012 much of the rain that lands on the ground is absorbed. Area creeks receive little natural flow. UCSD's flow is unnatural, but it is still flowing into the area creeks. UCSD's flow rate is also reduced during drought because the rate of flow in sewers is reduced. In a drought month the total flow from UCSD treatment plants is about 15 million gallons per day. As there is very little natural flow in area streams during drought, this is a large percentage of the flow going into streams. Any volume sold would result in less flow reaching the creeks.

To reduce the impact of the proposed sale to Cronus, provisions in the contract will require that there be a sustaining flow of UCSD effluent into the creeks. This flow will go to the creek before any volume is sold. If there is not enough flow to serve both the creeks and Cronus, the creeks get their water first. This sustaining flow will be in the range of 1.5 MGD to the Copper Slough and 4 MGD to the Saline Branch.

In addition, during drought Cronus will be obliged to reduce their use of UCSD effluent to 5.5 MGD, a 12% reduction. This would mean that the impact of a sale would be to reduce the rate of flow from UCSD by about 1/3. With the sale, there would be 9.5 MGD of UCSD flow be available for the creeks. The flow would be split about 2:1 between the treatment plants. So the Saline would receive about 6 MGD and the Copper Slough about 3 MGD during the month.

Also, UCSD will have the option of reducing the usage by Cronus to 4.3 MGD, a reduction of their typical usage of 30%. Activating this option would mean that 10.7 MGD would be available for the creeks. At this point the flow would be closer to 7 MGD to the Saline and 3.5 MGD to the Copper Slough.

What would be the impact of a sale if we have a drought comparable to 2012?

Looking at the worst day of the drought of 2012 specifically, UCSD discharged 4 MGD to the Copper Slough and 11 MGD to the Saline. If the sale were already done and none of the curtailment were enacted, these would have been roughly 2 MGD and 7 MGD. This is equal to 25 and 80 gallons per second, or about what towns of 25,000 and 80,000 people discharge (if there are no commercial and industrial flows). So even with this sale and drought, the creeks' flow will be about what other towns provide and much more than what is natural in headwaters streams.

With the option of reducing Cronus' usage during droughts, the flow rates by UCSD into the Copper Slough would be roughly 3 MGD and the Saline would be 8 MGD.

In the paragraph above, why is there a bigger drop in the flow into the Saline versus the Copper Slough?

This is a byproduct of growth in campus-town and downtown. In order to make room in the sewers serving these areas, UCSD is likely to transfer flow from areas of western Champaign that currently travel through these congested areas. The natural direction to divert these flows is towards the Southwest Plant. This means that if a sale does not occur, flows at the Northeast Plant will still be less by 2 to 3 MGD. This should be a temporary decline as more tall buildings are built and more residents provide more flow to the sewers that will remain connected to the Northeast Plant.

This also means that if a sale does not occur, the flows at the Southwest Plant will increase by that same amount.

What happens a drought worse than 2012 hits and there is not enough water for both the creeks and a buyer of effluent?

The sale policy includes that UCSD must discharge a rate that is sustaining to the creeks first. Any sale contract will require if there is not enough effluent for both purposes, this is the buyer's problem.

What happens if water conservation increases dramatically and there is less UCSD effluent in the future?

The sale policy includes that UCSD must discharge a rate that is sustaining to the creeks first. Any sale contract will require if there is not enough effluent for both purposes, this is the buyer's problem. This provision applies regardless of the reason for the lack of effluent.

How is habitat restoration involved in a sale of effluent?

An essential factor for aquatic health is physical structure. And while the country has spent billions improving the chemistry of the water by reducing toxins, as a society we have spent very little to maintain or repair habitat.

If the sale of effluent goes forward, UCSD will offer to provide a fraction of the sale income to repair habitat. UCSD will work with the Illinois Department of Natural Resources (DNR) and local landowners to get the improvements done. This will be part of a plan where UCSD will set aside a fraction from such sales to provide for habitat improvements. The goal here is to provide at least \$500,000 in local dollars over the next decade - to be a reliable funding source for continuous improvement to area habitat.

Wasn't there money set aside for creek restoration due to accidental spills in the past?

For both the Copper Slough and the Saline there are unspent remediation dollars from spills that occurred in 2000 and 2005. Regarding the Copper Slough, there is an improvement project that has been on hold while the Department of Natural Resources (DNR) finds a funding partner to make the remediation funding go further.

If the sale of effluent goes forward, UCSD will offer to provide these matching funds and will work with DNR and local landowners to get the improvements done quickly. This will be part of a plan where UCSD will set aside a fraction from such sales to provide for habitat improvements. The goal here is to provide at least \$500,000 in local dollars over the next decade - to be a reliable funding source for continuous improvement to area habitat.

What is the potential economic impact of Cronus Chemical on the region?

Please see the attached fact sheet from Tuscola Economic Development.

\$1.2 billion dollars in private sector investment

1,500 to 2,000 construction jobs

150 to 200 permanent jobs

Providing a local source of urea fertilizer for farmers

Does UCSD have the right to sell its effluent?

Yes. UCSD is incorporated as a Sanitary District under the Sanitary District Act of 1917. Section 7 of the act states:

“The board of trustees of any sanitary district formed under this Act may also enter into an agreement to sell, convey, or disburse treated wastewater to any public or private entity located within or outside of the boundaries of the sanitary district.”

Does the UCSD ratepayer see any benefit from a sale of effluent?

UCSD is a unit of local government. Any income that is received will offset costs for operating the District. The ratepayer will see the benefit of lower charges due to any income from any source.

How much would UCSD benefit from a sale of effluent to Cronus Chemical?

While the exact dollar figures are not set, the prices being discussed would result in UCSD receiving about \$1 million more in net income per year than it does presently. As noted above, UCSD would expect to return about \$50,000 per year over the next decade into habitat restoration.

The overall benefit to UCSD’s budget would be 9% more income versus the dollars received last year.

Can comments still be submitted?

Yes. The general Policy Regarding a Sale of Effluent, Biosolids or Other By-Products has not been formally adopted as of May 30, 2013. It is anticipated that it will be discussed and voted upon on June 6, 2013.

A contract between UCSD and Cronus Chemical has not been presented for consideration as of May 30, 2013. UCSD has not committed to any sale. Terms and conditions are being discussed to see if a specific contract with acceptable terms can be presented and voted upon.

Please submit comments to:

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