

TO: Interested Persons

FROM: Rich Marovich, Streamkeeper (SK)

DATE: October 11, 2018

SUBJECT: Agenda for Thursday, October 11, 2018 Discussion Meeting of the Lower Putah Creek Coordinating Committee – Monticello Room, Solano Irrigation District, 810 Vaca Valley Parkway, Suite 201, Vacaville from 3:30 to 5:00 PM.

No.	min	Item	
1	10	Public Comment: The public is invited to comment on matters relating to Putah Creek that are not on the agenda.	
2	5	Approval of Minutes: Minutes of the July and August meetings will be reviewed.	
		Nursery Ops: Amy Williams of Putah Creek Council will review nursery operations.	
3	30	Riparian Diversion Updates: Mark Snyder will review riparian diversions.	Patterned Calendar
		Interagency Comm. Updates: SK will report on interagency communications.	rā
4	20	Streamkeeper Report: SK will review progress on current projects.	
5	15	Coastal Cleanup Day: Amy Williams will report on the latest cleanup day.	
6	5	Correspondence: SK will report on correspondence.	
7	5	Member Reports: Members will have an opportunity to report.	
8		Next Meeting: The November LPCCC meeting will be held on Thursday, November 8 th at the Davis Police Department Community Room, 2600 Fifth Street from 3:30 to 5:00 PM.	

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TO: Interested Persons

FROM: Rich Marovich

DATE: August 9, 2018

SUBJECT: Minutes of July 12, 2018 Decision Meeting at Davis Police Department Community Room 3:30 to 5:00 PM

Introduction

Patrick:

- The purpose of this meeting is to best implement the Accord and help Rich
- This is not a forum for open debate from public members to the committee

1. Public comment

Alan Pryor:

- I am here to discuss the potential loss of water because of the impermeable layer
- I got SCWA's data and compared flow ratings and difference
- Review now looking at August and September and results show data that potential water recharge loss is 2.66 times Winter's water use
- The recharge is decreasing over time if the layer is compacting more
- Note on the minutes: Page 3 Vic said the trenches at Phase 2 issue of compacted surfaces is fixed, but I don't believe it is fixed, and I don't believe it actually is his findings.

Glen Holstein

- I have 20 years of experience in riparian restoration
- Information that I learned is now moving into the main stream
- More pools in the creek are better, slower flows are better,
- This is better for salmonids, trees, and the overall health of streams
- This information is too radical to be passed at a meeting

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The Lower Putah Creek Coordinating Committee consists of: Cities of Davis, Fairfield, Suisun City, Vacaville, Vallejo and Winters; Counties of Solano and Yolo; Solano and Yolo Riparian Landowners; Maine Prairie Water District; Solano County Water Agency; Solano Irrigation District; Putah Creek

Council and University of California, Davis

- See the article I brought: Beavers Rebooted
- Areas with beaver dams and restricted flow have cooler water than restoration areas in the Putah Creek
- In my opinion the restoration work being is being done absolutely backwards

2. Approval of minutes

Approved Seconded

Approve agenda, any changes?

No

3. LPCCC accord budget

Rich:

- There is a 1.21% change in Accord funding due to inflation
- Use of vegetation management funds for maintenance of existing project sites approved
- Each year we support electrofishing with Normandeau, which is \$30,000
- \$37,958 goes to Ken Davis to monitor aquatic inverts
- \$10,000 for salmon monitoring by UCD subsumed by SCWA-funded study. Funds reserved for removal of the rotary screw trap for staff and equipment
- LPCCC approved fish monitoring budget

Alejandro:

- We would appreciate detail in monitoring and would like to see documents to show what work is going to be done and where
- Something that is easy to explain and transparent
- There is no document now given by the agenda
- There is nothing to show \$78,000 without knowing exactly what's being done and what goals have been set, and where we are on those goals.
- We need to know is this the best way to spend funds?

Rich:

• \$78,000 is encumbered in a multi-year contract for UCD wildlife monitoring

Alejandro: We would like to know a yearly update and be able to share data. We have been a asking for a year for raw data

Rich:

- We do not release raw data per agreement with the landowners
- We report wildlife by river mile

Alejandro: We are not asking to change anything, but asking to see data.

Thomas Pate: Do you have minutes from these public discussions? Are there many members of your board who want this?

Alejandro: Yes, we are not asking for anything to change, just to justify and explain expenditure, what's been done before, and what works?

John Kluge: Has your director put your requests into writing?

Alejandro: We want to know what work is being done versus the data that's being gathered like wildlife monitoring

Andrew Fulks:

- There is a block of funding that is part of a ten-year contract with UCD
- We can clarify when needing information, versus raw data when needed
- As for the fish monitoring, we know what they do and know scope of their work, we need to know that the scope of their work is right, but not necessarily exact data

Thomas Pate: Put it in writing from the director of Putah Creek Council, and what the Putah Creek Council is requesting.

Andrew Fulks: We can approve the budget as it stands, and then request more information, but that's not part of this months agenda

Rich: We are approving a budget for our existing projects and fish monitoring

Felix Riesenberg:

- As a group we have been satisfied, there are other ways to get the details for the work scope, we
 are getting what we expected, get where you're coming from, and are not interested in asking
 staff for that level of detail
- It takes time, effort, and cost
- We are comfortable with what we've gotten
- We need to approve vegetative management budget and the fish monitoring budget

Approve it as it stands

Approved, second

Opposed? None.

Alejandro: Abstain

4. LPCCC reviewed

a. Stream keeper report

Rich:

- Last month I presented map of project sites, and would like to make that a regular part of the meeting
- Due to technical problems with the laptop I can't show the map, but it's the same with the addition on river mile 11 downstream Stevenson Bridge where there will be eucalyptus removal with the help of the CALFIRE tree crew

Patrick: I don't see the site.

Rich:

- It is the red dot for weed control
- This is all I have to report

b. Operational budget

Rich:

• We reorganized the spreadsheet, and it was not ready until the meeting

- The operational budget displayed Accord required contributions and SCWA support
- Total budget for the year including miscellaneous supplies is \$248,000
- 93% of that has been expended as of May 5, 2018
- 92% of the fiscal year gone by
- We've received non-Accord contributions from the agency for consulting work on the salmon project, native plant nursery, and equipment, offset by rental income from grants and plant sales
- the total amount of SCWA additional contributions is \$462,000

Questions?

Herb: I am pleased to see the improvement and SCWA's additional support; it is good to see that reflected in the budget.

c. Grants and project budget

Rich:

- \$1.3 million funds available for coming year
- FEMA grant for erosion control, \$44 2,000
- Brings it to 1.8 million for the following year

Patrick: Are there any grants you're currently in pursuit of?

Rich:

Additional requests for proposals are due this fall

Patrick: Will there be more funds?

Rich: Yes, additional rounds of Prop 1 and IRWM funding. We will weigh IRWM against Prop 1 funding because there is considerable overlap

Patrick: What about the Coastal Commission?

Rich: This is for gravel scarification, and we've only spent \$6,000 of it

d. Nursery operations

Rich:

- Since 2008, the native plant nursery has had a partnership with CALFIRE, which has been a great partnership. CALFIRE is returning the nursery to production of conifers but is very interested in keeping our relationship and sharing space
- Water agency provides \$30,000 a year for PCC volunteer events, one of most popular volunteer opportunities in the area
- We have learned a great deal in ten years, and the nursery will eventually be self-sufficient, becoming more efficient, more self-supporting in the future
- sale of plants offset cost, \$30,000 is assured if not raised otherwise

Amy:

- The nursery offers one of the most popular stewardship opportunities in the area
- It is very productive, but having trouble keeping up with the LPCCC's demands for plants
- We are halfway through the season

 We are providing training for One Creek interns, between the Solano County Water agency and the city of Davis, the interns meet a lot of people and make real life connections

Present:

- SCWA currently provides 67% of funding
- We hope to close the gap by raising prices to match local nurseries
- PCC obtained a grant from Raley's to help support the nursery
- PCC has organized a seed bank
- Producing plant propagation protocols
- Photos of seeds, species, method, pre-plant treatment, sowing and time to grow, to understand big picture
- Plant prices are now at the right level, similar to other nurseries
- Video of nursery events is a good outreach tool

Andrew: Is there a committee discount?

Amy: There are discounts for projects on the creek and for LPCCC members

Andrew Fulks:

- The one creek internship is a great opportunity to meet with other interns
- When asked, One Creek is the highlight of the students' summer and it gives them a good understanding of restoration

e. Equipment inventory

Rich:

- Hasn't been much change,
- The water agency is donating older vehicles as they're replaced, Colorado and Expedition to use for support in projects

John Kluge: Do the donated vehicles stay on SCWA or LPCCC books?

Rich: The repairs and maintenance are on us, but they are still owned by SCWA, as a reserve fleet

John Kluge: Can't surplus and dispose of, just curious.

Rich: They are part of our fleet but remain on SCWA books as with all LPCCC assets.

Herb: I was impressed that 300 trees were planted in an hour. Was this using the tree transplanter?

Rich: We used the tree transplanter on other field nursery sites but the latest planting was with a stinger on an excavator, punching a hole the size of pot, plant it, and you're good to go. No shovel work needed.

John: It doesn't compact soil?

Rich:

• By the time we rip, disk and harrow the soil it is loose, and a little bit of compaction drives out air pockets, and so it turned out to be successful

- We've had very good success where we use this technique and the plants respond favorably
- The trees look great even in middle of summer, excellent survival
- Not shearing sides of the hole which is a drawback to augers

f. Appointment to Winters Putah Creek Committee

Harold: Dennis Kilkenny filled this role, and Vickery did for a while, but Dennis out for a few months. We are asking for appointees approved this time every year, would any members like to be part of the committee?

Patrick: Is Dennis interested in doing it when he's better?

Rich: Maybe we can hold the positin for Dennis, but fill in with another member while Dennis is recovering. Harold any thoughts?

Harold: If anyone is willing to do it, that would be good.

John: Will this be for the time until Dennis is ready to come back?

Rich: Yes

John: I will go Monday as an acting member.

Rich: Okay then we will officially appoint John as alternate, and Dennis as the regular.

5. County fire

Rich:

- The fire is 86% contained, burned 92,000 acres, 10 times larger than previous fires
- Started from livestock fence in Guinda
- CALfire back-burned north of 128
- Successful to get it to not jump the creek
- A significant area burned on the entire eastern edge of Lake Berryessa

Harold: This has not happened in many years

Rich: Now is a good time for post-fire assessments for erosion control, because the landscape is more visible. The agency is looking into it.

Patrick: Will sediment affect the flow through the dam?

Rich:

- There may be sediment in the lake, but probably not near the dam
- We may need to address erosion
- Post fire assessments have resulted in two grants so far
 - o Monticello Fire IRWM
 - o Wragg Fire FEMA

Andrew: Will there be stuff coming down Dry Creek as well this time?

Rich:

- We want to reduce siltation of Lake Solano and Lower Putah Creek
- Vegetation typically comes back after fires, it all depends on rainfall patterns the following year. If heavy rains occur early in the season, there is nothing we can do. If rainfall is gentle, nothing needs to be done.
- CALFIRE cut back on post fire remediation accordingly
- Fire does not generally spike erosion as much as it reveals longstanding erosion issues unveiled by lack of vegetation
- Dozer trails are a primary concern because they can concentrate runoff

Patrick: What is the assessment process?

Rich:

- The water agency has hired a soil scientist for post-fire assessments
- The assessments easily become grant proposals
- Remediation focuses on trails and roads to keep runoff from concentrating.

6. Member reports

Andrew Fulks:

- Students are doing work on creek, and JP has led summer students
- On a personal note, 640 acres of UCD burned this week, and 1,280 burned week before; it has been a tough couple of weeks
- A lot of people we know have acreage that burned
- Pleasants Valley has been evacuated every year

Alejandro:

- Putah Creek Council has moved across the street
- We have much more space now

7. Correspondence

Patrick: None, and we can finish a half hour early.

Attendance: Members: Andrew Fulks, Alejandro Garcia Rojas, Stephen Sawyer, JD Kluge, Herb Wimmer, John Vickrey, Harold Anderson, Patrick Huber, Felix Riesenberg, Jessica Jones, Thomas Pate, John McNearney, JP Marie, Gloria Partida.

Staff: Rich Marovich, Nina Levin

Public: Chris Rose, Amy Williams, Kate Mawdsley, Bruce Conrad, Alan Pryor, Glen Holstein



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FROM: Rich Marovich, Streamkeeper (SK)

DATE: October 11, 2018

SUBJECT: Minutes of Thursday, August 9, 2018 Discussion Meeting of the Lower Putah Creek Coordinating Committee – Solano Irrigation District Monticello Room, 810 Vaca Valley Parkway, Vacaville from 3:30 to 5:00 pm.

No.	Time	Item
1	10	Public Comment: The public may comment on matters pertaining to Putah Creek.

Alan Pryor:

- I'm concerned there is not a full and open process for decision making
- Verbal requests have been made to see engineering calculations for stream temperature for stream modification and soil data
- Heard Alejandro ask for results for pre and post wildlife monitoring
- Ask hard copy and come back with nothing
- Scientific review process has been temporarily suspended, but three projects have been identified behind closed doors then brought to review
- During the soil presentations I asked two questions about adaptive management and what was learned from phase one and three and got no response
- I've been told that there will be no more questions from the public, so there is no debate
- I'm alarmed that this body won't follow public input and output process
- Question: is this going to continue?

2 5 Approval of Minutes: Minutes of the July meeting will be reviewed.	2
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Patrick: Motion to approve?

Yes, second. Discussion?

No

Rich: We picked out leading candidates for the best probability of winning:

- Prop one covers all work we do, and there is \$147 million under prop 1
- Proposals are due October 2018
- All permits have to be in place before apply for funding, which limits funding
- Above high water mark not possible
- Cross cutting project like weed control
- Currently IRWM, we can continue on downstream, and we have all the info we need
- I would like to invite the committee to say if they think it's worthwhile to pursue?

Patrick: My understanding is that the funding is secured to do Arundo control up to Yolo?

Rich:

- Yolo RCD are partners with Putah Creek Council
- We've requested planning project for entire watershed, not only Yolo
- It will allow us to pick up others like Pleasants creek
- Also for delta restoration, anything that benefits the delta can compete for funds
- Future for good funding for work in Davis area
- If it's close enough we can make this case
- The application is due next month
- Resources for agency funding leftover from River Parkways \$7 million statewide
- Not sure we have anything ready to propose
- Public lands Davis area
- California trails and greenway investments will link up trails for fishing accesses
- Investigation along with Putah creek trout, it's a good proposal
- Application due fall 2019

Herb: Will there be trails west of Putah Diversion Dam?

Rich: Correct

Andrew Faulks: There will be fishing accesses so they can traverse between

- Also we recently talked with delta conservancy, talked with the grant folks, they will also fund planning grants if we're not ready for permits
- River Parkways will do the same

- Also I will give you a contact to call and set up meetings to say what we have in mind and where
 it will fit
- Delta conservancy and river parkways: application for pre proposal (7 pages) will say what we're thinking and they'll get back to you

Chris Rose: It's a little more complex than that

Rich: Good point, I would like to talk to someone to see what they're looking for and what projects would fit. I've tried to get in contact with the Marine Fisheries grant program and they didn't return my phone calls. Less grant funds available and awards are smaller. I need an idea of what they're looking for

That's all for grants, questions?

Patrick: Are you looking for anything from us today?

Rich: Any feedback or comments?

Patrick: Will you be going for first one?

Rich: Yes

Andrew: Motion to go ahead with plans

Second

4 10 Interagency Updates: SK will report on interagency actions.
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Rich:

- USFWS amended the elderberry protection
- Amendment of a technical letter from USFWS with respect to fencing of elderberries
- This allows us to flag the plant instead of fencing it unless it's on a roadway
- If they're fifteen feet off the floodplain, they're fine
- FEMA Wragg fire grant and Solano OES for hazard mitigation
- My contact left Solano and no one else assigned to this position yet
- MOUs have been done for other projects, so we may need to get some help from the agency
- Air quality management no problem with tub grinders
- Calfire bursary expansion is set to move forward
- Actually have an office now with door that closes and air conditioning, they enjoy having us there, they
 see it as part of their mission

Herb: Is this a threat to our presence?

Rich: No, it sounds like we will be there to stay

30

Short presentation of findings by Emily Jacinto

- Want to share results from Putah Creek salmon project
- Salmon have increased from 200 fish in 2014 to 2000 fish in 2016
- Where did they come from, and where are they going in the future?
- Are they spawning? How are the juveniles?
- Will they use Putah creek run again?

1. Examine adults

- How many adult spawners are coming to Putah Creek? Where are they coming from?
- Carcass survey
- From diversion dam to Old Davis Road
- Mostly in upper portion of creek

Questions asked:

- From a hatchery or natural?
- Presence or absence of adipose fin
- Which hatchery, how old, and where were they released?
- 2016: 23 with coded wire tags
- 2017: 49 with coded wire tags
- They were released closer to the Delta and Bay, and then move closer to ocean

Otoliths studied:

- Ear bones show life history, water chemistry, where they've been living, shows where they've been.
- They are unique to each creek, and age can be shown too.
- Of the 104 Otoliths examined in 2016, there were 5 different groups, mostly from the Feather and Mokelumne river hatcheries.

2. Juvenile count

- How many were born in creek, when are they moving out, and are they in good condition?
- Rotary screw trap used to capture and survey
- 2017 May/June high flow 215
- 2018 February-June shows a more accurate representation of the season with 33,513 salmon
- This is promising for years to come
- We saw every stage of the fish's life
- Shows that adults are spawning, juveniles are very healthy and have a good chance of returning
- There are many natives and nonnatives

3. Track juveniles

- After outward migration, how many survive?
- After trap, they go out to the end of creek and out to ocean
- Pit and acoustic tags
- 2018 we used acoustic because it's easier to detect

• 107 tags deployed this year

4. Conclusion

- There are more adults utilizing Putah creek
- Many large and healthy juveniles,
- We will see if juveniles are returning to Putah creek as adults

Thomas: In regards to the pie chart: did you only look at hatchery fish?

Emily: They are coming from hatchery as well as other places It shows further that they're coming from hatcheries. We took into account every fish we sampled

Rich: Could the Feather River fish be from Putah Creek?

Emily: They could be, we are looking for different ways to decipher. We may be able to look at eye lenses.

Patrick: In regards to the screw trap, what's the spike a third of way through sampling?

Emily: This was due to the timing going out.

Patrick: What percent come back? Of the 33,000, what percent return?

Peter: We have to get a return of 2% to have a self-sustaining population.

The key is to get them to grow big. So when they go out, they swim faster. Ideally we want fish to end up in Yolo bypass when it's flooded.

Patrick: So we won't know the percent returning?

Peter: If 100 spawned in Putah Creek, we would jump for joy, because it will help contribute to salmon population. We are impressed with the size and condition coming out of Putah Creek.

Andrew: If a certain percent of fish survive, they might go back somewhere else too. Are there any studies that can link who got some of our fish? Is there another system? What is the long-term plan to track these fish?

Peter: The isotopes are the best hope to see if they're going elsewhere.

Patrick: The pink dots are a considerable size, the pacific side peninsula, what percent go directly into the Pacific?

Emily: I imagine pretty high.

Peter: I'm not sure.

Thomas: The fishing club runs a program, so they will know how many were raised.

Roland: To test the origin, will it be done by the chemistry of Otolith, or is the tag what the proof will

be?

Peter: Otolith is the best proof

Emily: Yes unless there is a tag

Peter: The tags can be missing from the adipose fin, but we will scan for pit tags.

Roland: Are there things about the study to do as well, or things to stop doing?

Anna: More genetic work, expanding Otolith research, lots of time and energy, and we need to pit tag a larger percent of population. Tags that are battery powered don't last as long. Pit tag lasts longer.

Thomas: Do they ping on receivers?

Anna: Yes, we look at NOAA's data too

Roland: What are the predation levels like?

Anna: It's difficult to say, we need to tag larger fish, and we'd like to understand the temperature gradient too. Are they blocked by the dam or eaten?

Roland: Some juveniles hang around over summer. What is the likelihood that they will stay and go out next year?

Peter: There are some fall run Chinook residual fish, and the water is cold during summer. We don't know what happens to them, and they must be healthy, but it is an interesting phenomenon.

Thomas: What about the Los Rios dam? Can they continue on after?

Anna: Of the 33,000 we saw, 17,000 went through after the dam, and a tech visited when it was dry. Fish cannot make it through. We need to see how much water is going past and use strategic tagging methods.

Peter: Managing the Check Dam is an issue, and the new flow around won't be a problem, but we need to make sure they can get over it

Rich: DWR proposed a 2020 bypass channel, which may put in rock structure to impound water, so fish can go into there.

Peter: Late fish may not survive anyway, because the temperature is too high.

Rich: The bypass channel could come up and then out much earlier.

Peter: If the adults could get out one month earlier that would be great

Patrick: Do you anticipate any stream management recommendations?

Emily: It's too early to tell

Peter: We need to improve the temperature of water downstream: more shade and riparian vegetation, and extend salmon season. The stream levels out at UC Davis, and the water absorbs more heat. We need to improve movement of water and keep it cooler.

Herb: Are there other native fish, and is this a perception of fishery from Diversion Dam

Peter: Yes, there are more native fish further down by Russell Ranch, cooler water favors other native fish as well. In late fall there are Tule Perch and Lampreys in the creek are benefiting as well. From campus down during summer are mostly nonnatives

6	10	Streamkeeper Report: SK will report on projects for August-September.

Rich:

- No change in August September
- The One Creek interns as well as the Water Agency interns planted 700 trees in two hours for the NAWCA project on August 1st
- The Stinger punches the same size and shape as nursery pot
- Excellent soil contact
- The site was well-prepared, loose soil, and the success rate has been phenomenal
- Other sites using this method have had an excellent growth rate
- Large irrigation water gun, irrigation efficiency is much higher
- Finish planting and then irrigate immediately after, good way of the future
- Creates a field nursery that's closer together
- The creek cottonwood recruitment hasn't been great, we want to get canopy back, so we can
 move them to final positions after they reach a four inch diameter

Andrew Faulks: Do the beavers or rats chew on them?

Rich:

- There is beaver pressure
- Those are caged now, so they're good
- More efficient here is electric fence
- Trees have been debarked from deer rubbing antlers on trunks
- This seems to be a winning formula
- Questions?

7 S Riparian Diversions Report: Assistant SK will provide an update on diversions.	
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Rich: Mark Snyder is not here, but there have been no issues with flow violations, a perfect record for recent years, and we will get update in a future meeting

Herb: Is there a riparian cutoff?

Rich: There has been good compliance, and one we are accommodating.

In 2008 there were five flow violations, but we got together and explained and communicated, and sent water down creek, so since there have been no flow violations.

Are there any questions?

No

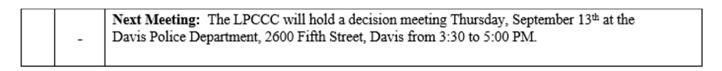
8	10	Member Reports: LPCCC members will have an opportunity to report.
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None

Kent: There will be an open house tomorrow for the Putah Creek Council, with free food.

9	5	Correspondence: SK will propose support letters for legislation, the Yolo HCP and grants.

None



Attendance: Harold Anderson, Herb Wimmer, Felix Riesenberg, John Vickrey, Earl Byron, Thomas Pate, Roland Sanford, Justen Cole, Patrick Huber, Don Saylor, Andrew Fulks, JD Kluge. Staff: Nina Levin, Nicolle Herr. Public: Kent Anderson, Chris Rose, Warren Adams, Alan Pryor, Peter Moyle, Ana Steele, Emily Jacinto, Nann Fangue.