

# 2019 BEAVER SURVEYOR ORIENTATION

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Community Science Program  
Johnson Creek Watershed Council



# JCWC Community Science Program

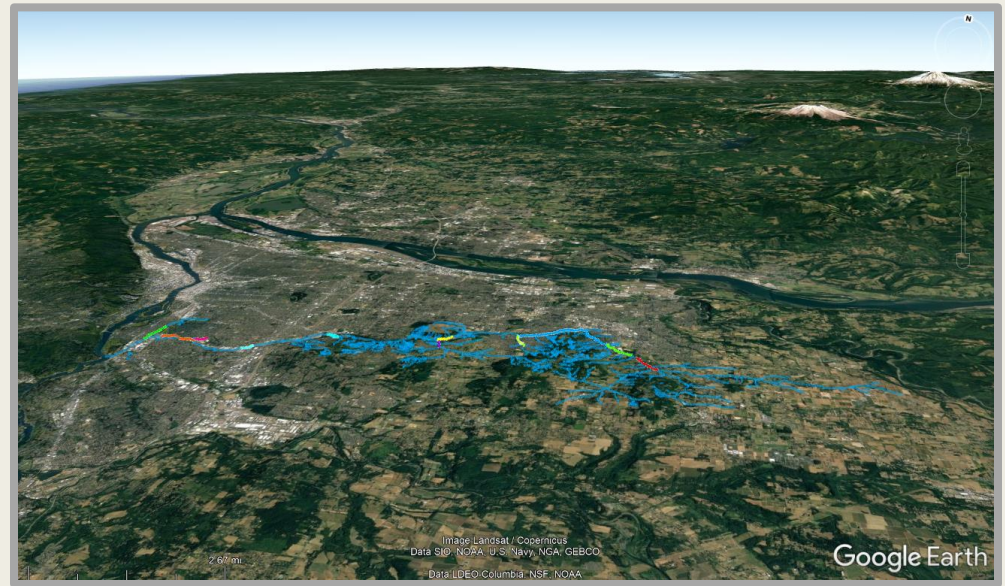
- Our mission is “to promote the restoration and stewardship of a healthy Johnson Creek Watershed through sound science and community engagement.”
- We work with thousands of volunteers each year. With a small staff, we can’t function without the community support of volunteers like you to help survey wildlife and restore habitat!





# Beaver Surveys – general outline

- Surveys will take place at ~12 reaches on Johnson Creek and its tributaries
- Each reach will be surveyed once by a team of 2-4 surveyors
- Each person will commit to at least one survey



- Survey dates: August 17<sup>th</sup>, August 24<sup>th</sup>/25<sup>th</sup>, August 31<sup>st</sup>, and September 7<sup>th</sup>



# OTHER FIELD LOGISTICS!



# What to expect as a surveyor

## ■ Week before survey:

- *JCWC will send an email reminder to your group*
- *Coordinate with your group to determine gear pick-up/drop-off, time and transportation, and data input*

## ■ Day of survey:

- *Make sure you're in good physical health*
- *Bring gear, be safe, and have fun!*
- *Spend 3-4 hours walking the stream and doing science!*

## ■ After survey:

- *Input data and return gear to JCWC*
- *Sign up for additional sites (if needed)*
- *Stay tuned!*



# Gear pick-up/drop-off

- Gear pick-up
  - *Wed/Thur/Fri before survey (by 6:30pm)*
- Gear drop-off
  - *Mon/Tues following survey (by 6:30pm)*
- Complete equipment check in/out sheet, please

Contact Jeffrey at  
[communityscience@jcw.org](mailto:communityscience@jcw.org) to  
arrange gear pick-up & drop-off!

# Surveyor Gear Checklist

## Provided by JCWC:

1. Waders, boots, belt
2. Life vest
3. Wading Poles
4. Backpacks
5. Sunglasses
6. Phone cases

## Field Binder:

7. Data Sheets
8. Dam ID Letter Cards
9. Map & Directions to reach
10. FAQs & Checklist
11. Surveyor Safety Protocol

## BYO Gear:

1. SmartPhone
2. Water bottle & snack
3. Weather-appropriate clothes
4. Walking Stick
5. Change of clothes in car for after survey

# Reminder to get partners' wader sizes for pick-up

- We recommend that everyone bring a pair of rubber **boots** or **water shoes** just in case waders don't fit
- **Brown** neoprene waders are form-fitting. People find the **beige** ones more comfortable

Women's shoe size:		Men's shoe size:		Grab waders in size...
Under 8	➡	Under 6	➡	6
8	➡	6	➡	6
9	➡	7	➡	7
10	➡	8	➡	8
11	➡	9	➡	9
12	➡	10	➡	10
13	➡	11	➡	11



# BEAVER SURVEYORS – EQUIPMENT CHECK-OUT/CHECK-IN

SURVEYOR NAMES (PLEASE PRINT)	WADERS	WADING BELT	LIFE VEST	WADING POLES	POLARIZED SUNGLASSES	DAM ID LETTER PACKET	OTHER GEAR (FIELD VESTS)	DATE CHECKED...
Courtney Beckel	ID#: 8	ID#: 2	ID#: 11	ID#: 1 & 33	ID#: 4	3	Field vests #s 7 & 26	OUT: 8/09/18
Alexis Barton	ID#: 22	ID#: 7	ID#: 9	ID#: 5 & 9	ID#: 12			IN:
	ID#:	ID#:	ID#:	ID#: &	ID#:			OUT:
	ID#:	ID#:	ID#:	ID#: &	ID#:			IN:
	ID#:	ID#:	ID#:	ID#: &	ID#:			OUT:
	ID#:	ID#:	ID#:	ID#: &	ID#:			IN:
	ID#:	ID#:	ID#:	ID#: &	ID#:			OUT:
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	ID#:	ID#:	ID#:	ID#: &	ID#:			IN:

# Field Protocol – alternative to using the Anecdata app

- EVERYONE has their own way of doing things! The paper datasheet is especially useful if you want to have a “back-up.”
  1. Complete the paper datasheet while in the field
  2. Input data and photos into Anecdata online from your computer

\* Please don't hesitate to contact JCWC for your phone/computer/app needs!

The image shows a tilted paper field protocol datasheet. At the top, there are fields for 'Date:', 'Stream/Reach:', 'Field notes:', 'Observers:', 'Start Time:', and 'End time:'. Below these is a table with columns for 'LOCATION LETTER', 'STAFF GAUGE (ft) if present', 'LOGS PRESENT?', 'DAM PRESENT?', 'Dam composition (Wood/Mud/Grass/cobble)', 'Active Dam?', 'Dam intact (holding water?)', 'Water Level Difference (ft)', 'Dam Length (ft)', and several 'Y/N/?' columns for specific observations: 'Is the dam wider than the channel?', 'Is the stream incised?', and 'Is there overflow at the dam?'. There are also sections for 'Notes' and a table for multiple locations with columns for 'Wo/Mu/Gr/Co' and 'Y/N/?'.

Date:	Stream/Reach:	Start Time:	End time:
Field notes:		Observers:	

LOCATION LETTER	STAFF GAUGE (in ft) if present	LODGE PRESENT? *photo	DAM PRESENT? *photo	Dam composition (Wood/ Mud/ Grass/ cobble)	Active Dam?	Dam Intact (holding water)?	Water Level Difference (ft)	Dam Length (ft)	Is the dam wider than the channel?	Is the stream incised?	Is there overflow at the dam?
A	Y / N	Y / N	Wo / Mu / Gr / Co	Y / N / ?	Y / N / ?			Y / N / ?	Y / N / ?	Y / N / ?	
Lat: 4 _ _ . _ _ _ _ _				Notes							
Long: -12 _ _ . _ _ _ _ _											
B	Y / N	Y / N	Wo / Mu / Gr / Co	Y / N / ?	Y / N / ?			Y / N / ?	Y / N / ?	Y / N / ?	
Lat: 4 _ _ . _ _ _ _ _				Notes							
Long: -12 _ _ . _ _ _ _ _											
C	Y / N	Y / N	Wo / Mu / Gr / Co	Y / N / ?	Y / N / ?			Y / N / ?	Y / N / ?	Y / N / ?	
Lat: 4 _ _ . _ _ _ _ _				Notes							
Long: -12 _ _ . _ _ _ _ _											
D	Y / N	Y / N	Wo / Mu / Gr / Co	Y / N / ?	Y / N / ?			Y / N / ?	Y / N / ?	Y / N / ?	
Lat: 4 _ _ . _ _ _ _ _				Notes							
Long: -12 _ _ . _ _ _ _ _											

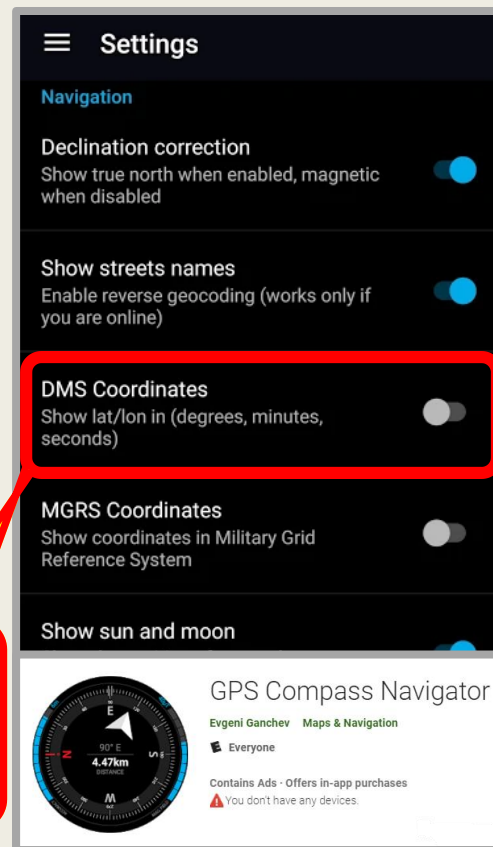
Using the paper data sheet will require obtaining lat/long on your phone...

# Using lat/long phone apps

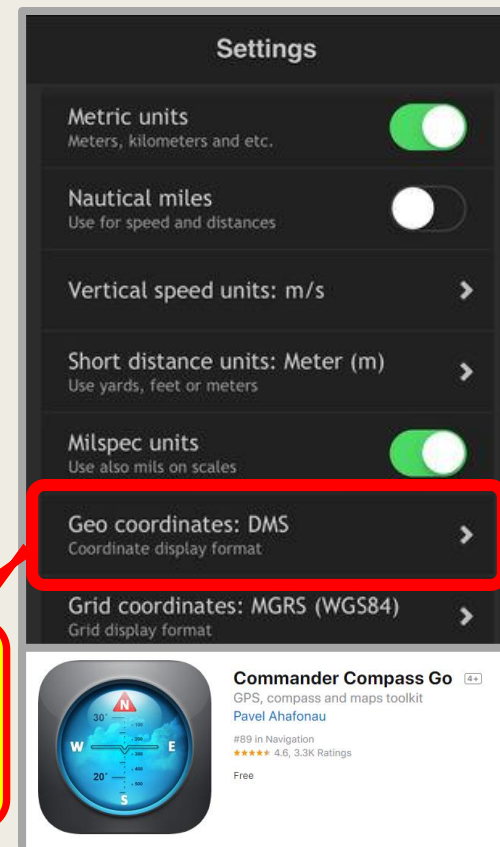
- Install one of these free lat/long apps:
  - Apple users - “[Commander Compass Go](#)”
  - Android users - “[GPS Compass Navigator](#)”

- Requires location permission

- In settings, change coordinate format to decimal degrees



Uncheck  
here for  
decimal  
degrees



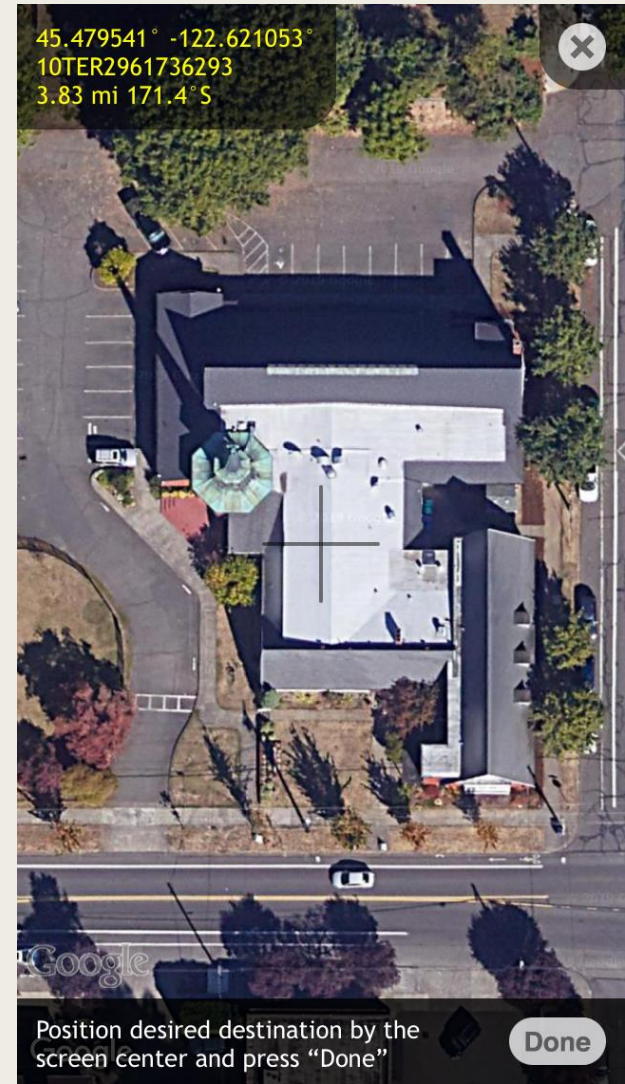
Click here  
and  
select  
“±D.x”  
option



# Using lat/long phone apps

(cont'd)

- Use the map location feature for better accuracy
- Practice: locate the JCWC office →





BEING  
PREPARED  
& SAFE!



# Safety Protocol

## JCWC Volunteer Surveyors



Safety is our highest priority at JCWC. As a volunteer surveyor in the Johnson Creek Watershed, **always** follow these rules for your own and others' safety:

1. **Trust your instinct.** If a site or a situation doesn't seem safe, act on your intuition.
2. **Be prepared.** Know the location and phone number of the nearest urgent-care facility.
3. **Have a buddy.** Always survey with at least one other adult. (Two adults must be present.)
4. **It's ok to quit.** Call off the survey if you feel unsafe for **any** reason, for example:
  - Weather – hot or cold temperature, high precipitation, etc.
  - Stream conditions – poor visibility, swift water, deep water, slippery bottom, etc.
  - Bank conditions – steep, slippery, unable to climb out of stream, blackberry, etc.
  - Person-to-person interactions – negative interactions with residents, campers, etc.
  - Animals – off-leash dogs, etc.
  - Injury, illness, or fatigue.
5. **Permission is essential.** Only survey reaches for which JCWC has obtained permission. Even if permission has been obtained, call off the survey if a homeowner asks you to leave or if you feel that you are unwelcome.
6. **Banks are best.** Whenever possible and safe, walk on the banks instead of the stream. Walk cautiously, looking out for tripping hazards. (Bank walking also protects stream wildlife!)
7. **Be geared up.** When entering the stream (even briefly), use the following equipment:
  - Chest waders
  - Life vest worn under waders
  - Walking pole (1 or 2)
  - Polarized sunglasses
8. **Stay shallow.** Don't enter the creek when it's above waist level for either partner. If the water is moving rapidly, don't enter the creek when it is above knee level for either partner. Test with your walking pole before getting in the water, and test frequently as you proceed.
9. **Stay warm.** If you begin shivering and can't stop, get out of the water and warm up.

10. **Walk carefully.** When in the creek, walk slowly, face upstream for balance and visibility, use your pole to test the ground in front of you, and watch out for hazards such as rocks, holes, trash, and sharp objects (including glass and needles).

11. **Steer clear of needles.** Never touch a hypodermic needle you spot in or near the creek. Contact JCWC instead and let us know the location of the needle.

12. **Alert us.** If you call off your survey or notice any potential hazards in the creek, contact JCWC immediately so we can inform other volunteers.

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### What to do if you fall

Falling in waders can be very dangerous, even in shallow water. If your waders begin to fill, act quickly:

1. Slip off the shoulder straps.
2. Float on your back, with your feet downstream so waders can slip off easily. Use your feet to slow down in the current.
3. Move or swim to the bank and stand up.

If you are out of danger but are very wet, determine whether you can stay warm and safe enough to continue. If not, get out and change into dry clothing.

Always shower as soon as possible after significant contact with creek water.

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### What to do if you are injured

It's up to you to decide whether an injury is serious enough to call off the survey. Err on the side of caution—small injuries can worsen! We care more about you than about the survey.

A few notes:

1. **Keep cuts dry.** Keep all cuts out of the water and clean them as soon as possible.
2. **Get help.** If an injury is serious, contact the nearest urgent-care facility.
  - a. If you are responsive, decide the best course of action
  - b. If your partner is unresponsive, call 911 immediately
3. **Contact us** as soon as you can.



# Safety: When to call it off

- Water depth
- Cold, wet, ill, or uncomfortable
- Temperatures below 40 F, lightning
- No partners to survey with you





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	ID#:	ID#:	ID#:	ID#: &	ID#:			OUT:
	ID#:	ID#:	ID#:	ID#: &	ID#:			IN:
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	ID#:	ID#:	ID#:	ID#: &	ID#:			OUT:
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	ID#:	ID#:	ID#:	ID#: &	ID#:			OUT:
	ID#:	ID#:	ID#:	ID#: &	ID#:			IN:





My partner  
or I need to  
cancel

- We are counting on you to show up for your survey!
- Contact your substitute as soon as you find out
- Contact Jeffrey if the substitute cannot make it





My partner  
hasn't  
responded to  
me

- Do not survey in the water by yourself!
- Call your substitute
- If they do not respond, contact Jeffrey and he will ensure you can survey again





There's an injury during our survey

- If the person is responsive and able to communicate, they decide their own course of treatment
- If a person is unconscious, call 911
- When you are able, notify JCWC staff





We meet an  
upset  
landowner

- *Reaches of the creek are owned by adjacent landowners*
- *Landowners have been notified*
- *If you encounter someone who accuses you of trespassing, simply apologize, tell them to contact JCWC, and leave*





We see people  
living along  
the creek

- *It's possible you'll encounter people living along the creek*
- *If creek residents are friendly or indifferent, feel free to say hello or smile; they may know a lot about the creek*
- *If you feel unsafe or have a negative interaction, do not engage and leave immediately*





My waders  
have a leak.

- You don't have to complete your stretch if too cold or uncomfortable
- Notify us when you return the equipment so they can be repaired before lending them out again



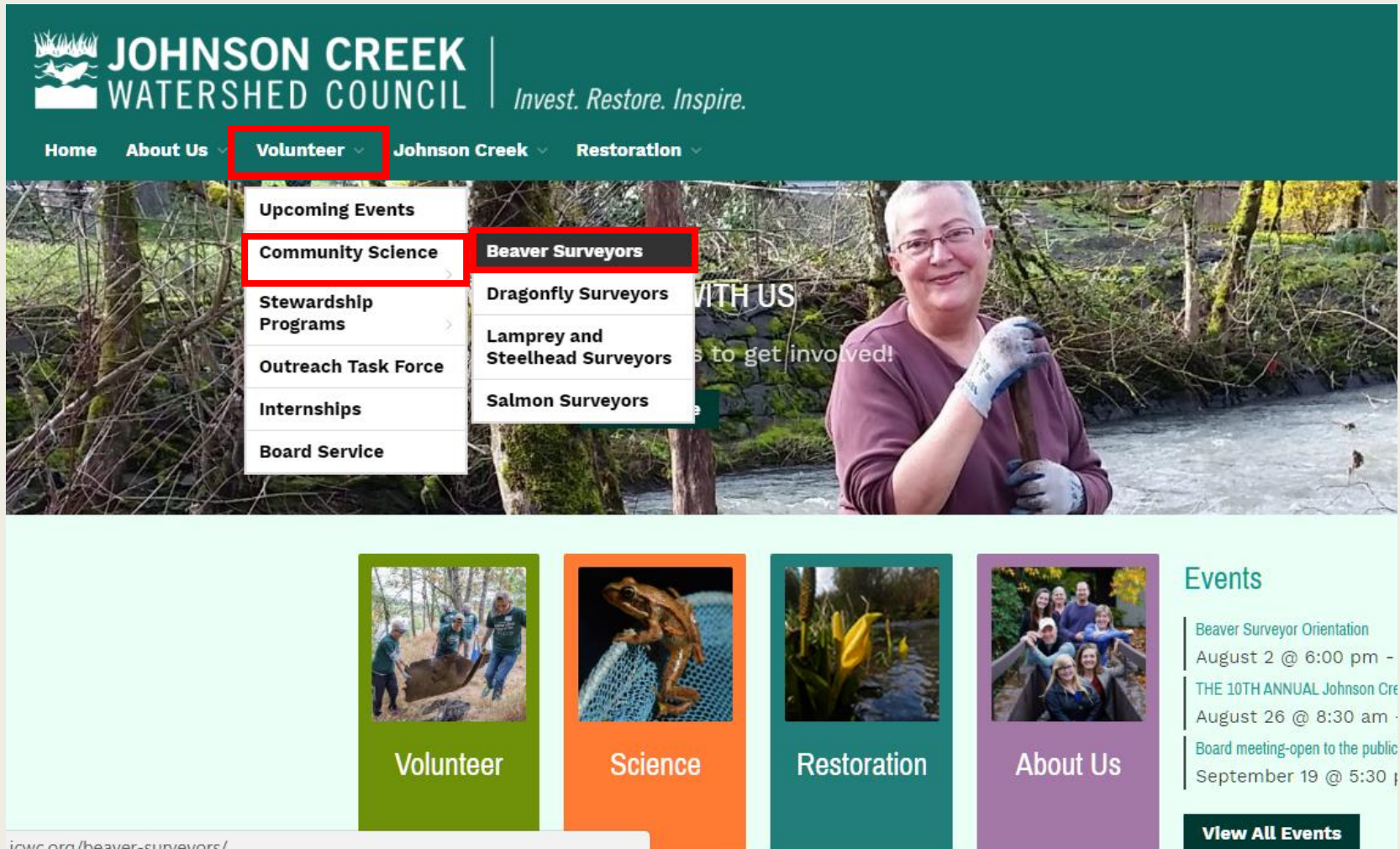


Someone's  
asking me  
what I'm doing

- Take a moment to help do some valuable community outreach!
- Explain you're a volunteer with JCWC
- Tell them about our effort to better understand the distribution of beaver activity in the watershed
- Direct them to JCWC
  - *You can hand out Jeffrey's contact info (volunteer ID card)*



# Surveyor Resources are at [www.jcwc.org/beaver-surveyors/](http://www.jcwc.org/beaver-surveyors/)



**JOHNSON CREEK WATERSHED COUNCIL** | *Invest. Restore. Inspire.*

Home About Us **Volunteer** Johnson Creek Restoration

- Upcoming Events
- Community Science**
- Stewardship Programs
- Outreach Task Force
- Internships
- Board Service

- Beaver Surveyors**
- Dragonfly Surveyors
- Lamprey and Steelhead Surveyors
- Salmon Surveyors

WITH US  
to get involved!

**Volunteer**

**Science**

**Restoration**

**About Us**

**Events**

- Beaver Surveyor Orientation  
August 2 @ 6:00 pm -
- THE 10TH ANNUAL Johnson Creek Watershed Council  
August 26 @ 8:30 am -
- Board meeting-open to the public  
September 19 @ 5:30 pm -

[View All Events](http://www.jcwc.org/beaver-surveyors/)





THE  
NEXT  
STEPS?!



# Before you leave today...

- Make sure you've signed the waiver
- Download the Avenza and/or GPS apps
- Let us know if your availability has changed
- Take copies of all handouts with you
  - *Field Protocol*
  - *Surveyor Safety Handout*
  - *Beaver Surveys FAQ & Checklist*
- Stay tune! We're putting incontact you by Friday evening to schedule your surveys





Thank  
you!!!

Questions??