Protocol for COMMUNITY SCIENCE eBIRD MONITORING AT PCC ROCK CREEK

Background:
PCC and Clean Water Services have developed an Ecological Enhancement Plan (EEP) for the PCC Rock Creek Floodplain site to guide enhancement and stewardship efforts at the site. Ongoing floodplain restoration on this site will connect high quality riparian, aquatic and upland habitats for improved ecological function. This protocol was developed to meet the EEP Goal of engaging community partners and volunteers in data collection to measure the effects of restoration activities.

Project goals & objectives:

1) Document bird use of the PCC Rock Creek Floodplain in order to monitor changes in bird composition and abundance as ecological enhancement activities progress as the site matures.
2) Connect community partners, PCC students and local birders to the site by providing community science skill-building and encouraging participation of new birders and constituencies.

Study Season and Frequency:
Our goal is to encourage robust use of the protocol throughout all days and seasons when the nature trail is open to the public. Surveys may be conducted on any date that is convenient for the observer when the PCC campus is open (Monday through Saturday) and the gates to the nature trail are unlocked (Spring through Fall). Surveys may be conducted any time during daylight hours although we encourage conducting them when most birds are at peak activity (early morning).

Observer Requirements:
Observers should attend an orientation and brief training at the site (to be provided at least once per year), have binoculars and/or a spotting scope, and have access to eBird, either through a mobile app to use on-site or through computer access after the survey is complete. eBird is free – you just need to set up a username and password (https://ebird.org/home).

Field Procedures:
Our aim with this protocol is to achieve reasonable standardization of effort among observers, while keeping the methods simple and as close to normal recreational birding as possible and allowing for personal freedom/flexibility.

1. Walk the survey route along the nature trail as shown on **Map A**. You may walk in either direction — your choice — and you may wish to alternate directions with each visit. The route traverses an array of habitat types including coniferous forest, deciduous woodland, oak savannah and grassland, and includes four dead-end spurs which offer views into the heart of the floodplain. When returning back along a dead-end spur to the main trail, **do not** count birds previously recorded in this area; new species only should be recorded.

2. Record all birds seen and heard and enter all data into eBird using the hotspot named Portland Community College Rock Creek campus.
   - **Do not** record birds seen in the developed areas (buildings / parking areas on campus).
   - **Do** record fly-over birds that you suspect are actively using the site; **do not** record fly-over birds you believe are bypassing the site entirely.

3. You may enter data any way you prefer — directly from the field with a phone app or afterwards from written notes made in the field. Please record time and distance spent on the survey as accurately as possible, and please enter data as soon as possible during or after your visit so as to ensure accuracy. Remember to double check your entries before clicking "submit". The length of the marked transect is approximately 1.0 miles.

4. Make a brief description of weather conditions during your survey, and note whether you feel the weather had an adverse impact on the presence or detectability of birds. This can be written in the Comments section of your checklist if you have set your comments to "public".

Data Analysis: Descriptive analyses will be used to summarize avian abundance and diversity at the site across years and seasons. Species diversity will be assessed using Shannon-Weiner index. Species abundance will be a measure of relative abundance per unit effort. This data will complement intensive point count surveys that will be performed at the site during the late spring and early summer of 2019 and 2020.

For questions about this project or entering data via eBird contact Joe Liebezeit (jliebezeit@audubonportland.org) or Candace Larson (clarson@audubonportland.org).

Map A