Goal 3 – Protect and Enrich Recreational Opportunities

Objective 3b: Reduce nuisance vegetation.

We are interested in feedback from the Technical Team on the following sub-objectives and associated actions as possible management techniques. This document is meant to present management techniques the Dutch Hollow POA might include in the aquatic plant management plan. Please advise if there are any items here that would impede approval of the Aquatic Plant Management Plan being drafted for public comment and review in early February 2017. Please consider the sub-objectives and action items to be in draft form.

3b (i) – Reduce vegetation enough to maintain two boating lanes in Woodland Bay to the south and east of the boat landing.

- Conduct herbicide treatment of the 18.2-acre unit in Woodland Bay in spring 2017 (Figure 1). The far west section of the bay is not proposed for treatment in order to minimize impacts to native vegetation and because navigation is not essential in that area. The 18.2-acre area was delineated based on aquatic plant survey results from 2016 that show greatest total rake fullness (Figure 1) and greatest EWM rake fullness (Figure 3). The bay-wide treatment is similar to methods currently being used in Lake Redstone. Pre- and post-treatment monitoring would be conducted using a higher resolution point-intercept grid of the treatment area, also similar to methods on Lake Redstone. Follow-up herbicide treatment would be considered when needed to keep two boating lanes open and if post-treatment survey results reveal this approach is successful for at least one growing season.
- Conduct mechanical harvesting in Woodland Bay up to two times/month during the growing season as needed to maintain two boating lanes. The mechanical harvesting would include areas inside and outside the herbicide treatment unit as needed and permitted. Anticipated need for mechanical harvesting would be 2018-2021 if herbicide treatment were allowed, although some mechanical harvesting might be necessary southeast of the treatment unit in 2017.
- Possibly conduct DASH in Woodland Bay as needed and permitted to remove EWM. This action could also be considered a form of EWM maintenance to keep it from growing to nuisance conditions.

3b (ii) – Reduce vegetation near the Summit Bay POA Docks for swimming and navigation.

- Conduct herbicide treatment of the 11-acre unit in Summit Bay in spring 2017 (Figure 1). The far southern sections of the bay are not proposed for treatment in order to minimize impacts to native vegetation and because swimming/navigation is not essential in that area. The 11-acre area was delineated based on aquatic plant survey results from 2016 that show greatest total rake fullness (Figure 1) and greatest EWM rake fullness (Figure 3). The bay-wide treatment is similar to methods currently being used in Lake Redstone. Pre- and post-treatment monitoring would be conducted using a higher resolution point-intercept grid of the treatment area, also similar to methods on Lake Redstone. Follow-up herbicide treatment would be considered when needed to keep the area swimmable and navigable and if post-treatment survey results reveal this approach is successful for at least one growing season.
- Conduct mechanical harvesting in Summit Bay up to two times/month during the growing season as needed to maintain two boating lanes. The mechanical harvesting would include areas inside and outside the herbicide treatment unit as needed and permitted. Anticipated need for mechanical harvesting would be 2018-2021 if herbicide treatment were allowed, although some mechanical harvesting might be necessary north of the treatment unit in 2017.

- Possibly conduct DASH in Summit Bay as needed and permitted to remove EWM. This action could also be considered a form of EWM maintenance to keep it from growing to nuisance conditions.

3b (iii) – Add "at, near, and below" surface criteria for EWM to future aquatic plant surveys.

- During all aquatic plant surveys, including pre- and post-treatment surveys for EWM, additional data will be collected for EWM that indicates whether it is "at surface, near surface, or below surface." Such information will assist the POA and managers in deciding which areas to target for EWM nuisance relief. It will also provide an additional metric with which success of action items can be measured.

3b (iv) – Residents' observations suggest "algae blooms" are negatively impacting recreation in Black Forest and Summit Bays. Assessment of filamentous and planktonic algae in Black Forest and Summit Bays will help determine the type of algae causing the issue and management action needed.

- Volunteer secchi depth monitoring will be added to at least one site in Black Forest and Summit Bays 2017-2021 to help determine whether the issue is related to planktonic algae.
- Pre- and post-treatment monitoring of both bays will include documentation of filamentous algae to help determine whether the issue is related to filamentous algae. Data will be collected any year there are plant surveys conducted.
- Either result would imply a nutrient loading issue related to water quality, which is being addressed in Goal 1.

3b (v) – Provide for swimming opportunities around piers reducing EWM to "well below" the surface (approximately 5 feet) or sparse.

- Conduct herbicide treatment of the 8.2-acre unit in Black Forest Bay in spring 2017 (Figure 1). The far southwestern section of the bay is not proposed for treatment in order to minimize impacts to native vegetation. The 8.2-acre area was delineated based on aquatic plant survey results from 2016 that show greatest total rake fullness (Figure 1) and greatest EWM rake fullness (Figure 3). Black Forest Bay was also identified as one area where swimming is a popular recreational activity. The bay-wide treatment is similar to methods currently being used in Lake Redstone. Pre- and post-treatment monitoring would be conducted using a higher resolution point-intercept grid of the treatment area, also similar to methods on Lake Redstone. Follow-up herbicide treatment would be considered when needed to keep the area swimmable and navigable and if post-treatment survey results reveal this approach is successful for at least one growing season.
- Conduct mechanical harvesting lake-wide up to two times/month during the growing season as needed to maintain swimming areas around piers. Anticipated need for mechanical harvesting would be 2018-2021 in herbicide treated areas and also 2017 outside herbicide treatment units.
- Possibly conduct DASH as needed and permitted to remove EWM. This action could also be considered a form of EWM maintenance to keep it from growing to nuisance conditions.

Figure 1 - Proposed Herbicide Treatment and Rake Fullness

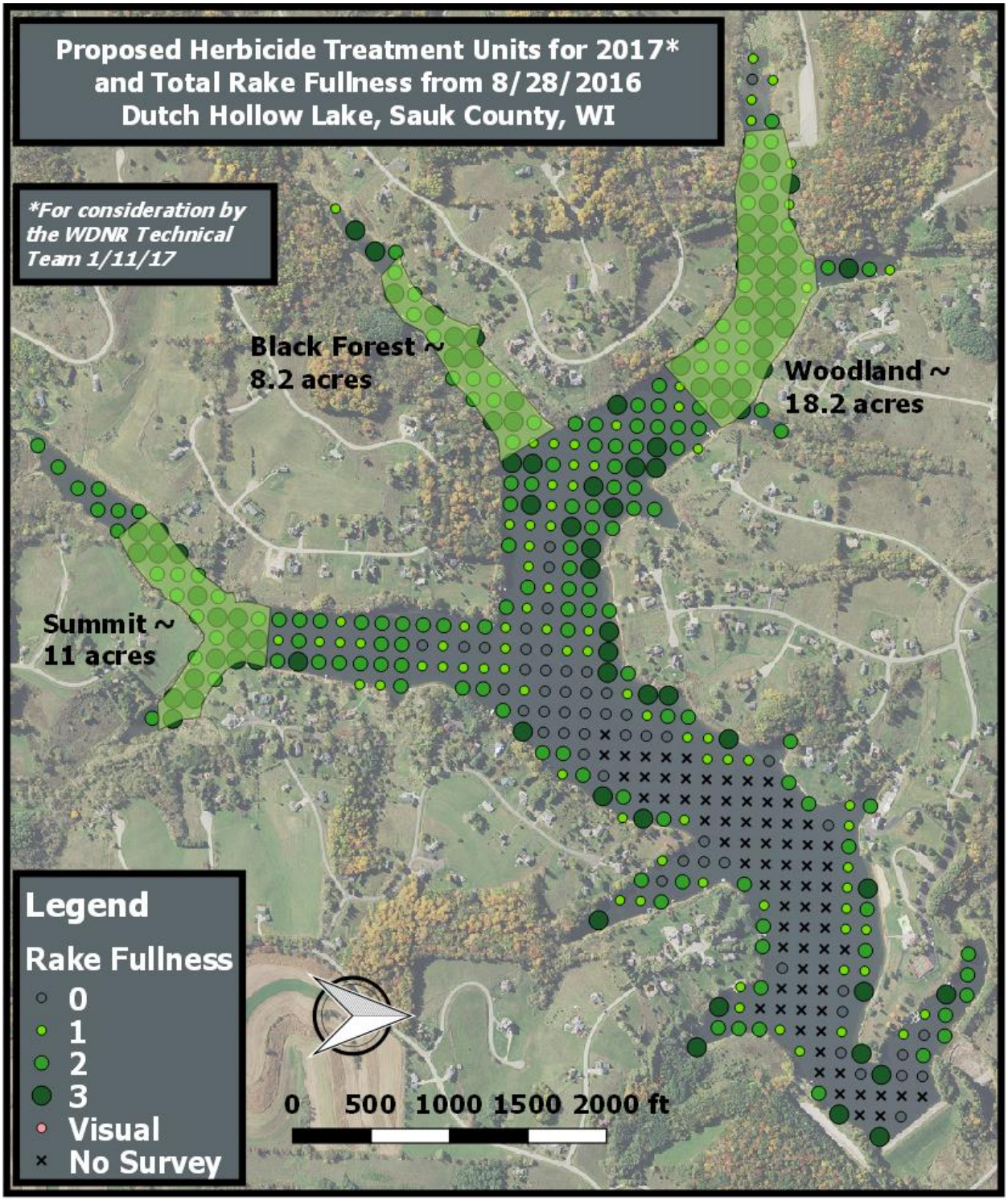

Figure 2 - Proposed Herbicide Treatment and Depth Ranges

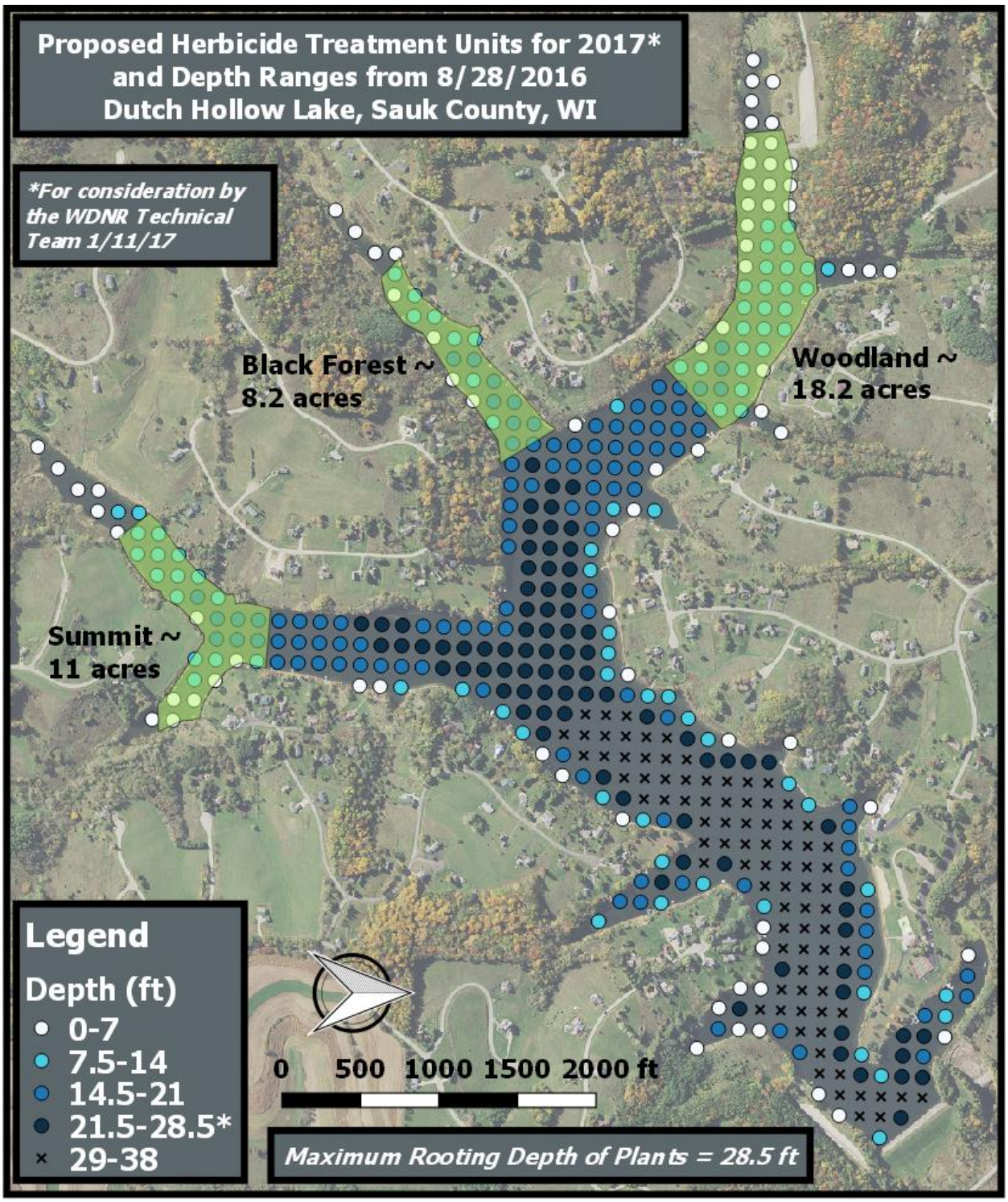

Figure 3 – Proposed Herbicide Treatment and EWM