

153 FERC ¶ 61,219  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;  
Cheryl A. LaFleur, Tony Clark,  
and Colette D. Honorable.

Safe Harbor Water Power Corporation

Project No. 1025-086

ORDER GRANTING REHEARING

(Issued November 20, 2015)

1. On March 16, 2015, Commission staff issued an order approving a proposal by Safe Harbor Water Power Corporation (Safe Harbor), licensee for the Safe Harbor Project No. 1025, to increase the normal maximum water surface elevation of the project impoundment.<sup>1</sup> On March 30, 2015, Gerald S. Book (Mr. Book), on behalf of the Lancaster County Bird Club (Lancaster Bird Club), filed a request for rehearing of the order, expressing concern about potential impacts of the elevation increase on shorebirds. As discussed below, we grant rehearing.

**I. Background**

2. On August 14, 1980, the Commission issued a new license to Safe Harbor for the continued operation of a concrete gravity dam located on the Susquehanna River in Lancaster and York Counties, Pennsylvania (Safe Harbor Project).<sup>2</sup> Lake Clarke, extending 10 miles upriver, serves as the project reservoir. Lake Clarke is home to a cluster of islands located along the eastern shore near Washington Boro, Pennsylvania.

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<sup>1</sup> *Safe Harbor Water Power Corp., Order Approving Final Reports on Fisheries Investigations, Bird Usage Surveys, and Mudflat Surveys Pursuant to Articles 47, 48, and 49, respectively, and Amending Article 44*, 150 FERC ¶ 62,160, at ordering para. (D) and (E) (2015) (Order Increasing Elevation).

<sup>2</sup> *See Safe Harbor Water Power Corp.*, 18 FERC ¶ 62,535, & app. at 63,909 (1982) (publishing the August 14, 1980 order issuing the new major license as an appendix because it had been inadvertently omitted from printing).

The cluster of islands includes several large, vegetated islands, such as Shad Island and the Washington Boro Islands (Rookery, Big, and Green Islands). A number of smaller, unnamed islands, wetlands, and flats are associated with this group of islands. Collectively, the flats are referred to as the Conejohela Flats. The Conejohela Flats and adjoining waters and wetlands provide important nesting, feeding, and resting habitat for migrant<sup>3</sup> and nonmigrant shorebirds and waterfowl.<sup>4</sup>

3. On December 23, 1997, Safe Harbor filed a request to amend its license to increase the normal maximum reservoir elevation from 227.2, the level established in the license, to 228.0 feet msl, for the purpose of increasing project generation.<sup>5</sup> In order to minimize the potential impacts of the increase on the migratory shorebirds that frequent the Conejohela Flats, Safe Harbor proposed to increase the reservoir elevation incrementally over several years.<sup>6</sup>

4. On October 28, 1998, Commission staff issued an order amending the project license to allow a temporary increase of the normal maximum water surface elevation to

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<sup>3</sup> Typically, the northern (spring) migration of shorebirds begins around April 15 and continues through mid-June. The southbound (fall) migration begins around July 1 and continues through the end of October.

<sup>4</sup> The importance of this habitat is underscored by National Audubon Society's designation of the Conejohela Flats as an "Important Bird Area." Audubon, *Important Bird Areas – Conejohela Flats* (Oct. 2015), available at <http://netapp.audubon.org/iba/Site/965>. Additionally, the Pennsylvania Natural Heritage Program accorded the Conejohela Flats its highest level of significance (Exceptional) in its list of Natural Areas of Statewide Significance. Pennsylvania Natural Heritage Program, Western Pennsylvania Conservancy, *Natural Heritage Inventory of Lancaster County, Pennsylvania* (2008) at pp. 188-195, available at [http://www.naturalheritage.state.pa.us/CNAI\\_PDFs/Lancaster%20County%20NAI%20008%20Update%20WEB.pdf](http://www.naturalheritage.state.pa.us/CNAI_PDFs/Lancaster%20County%20NAI%20008%20Update%20WEB.pdf).

<sup>5</sup> Safe Harbor Application for Amendment of License at 1 (December 23, 1997).

<sup>6</sup> See *id.* at B-4. Under normal daily operations, the project reservoir is filled at night to the normal maximum water surface elevation and then gradually lowered during the day to its minimum elevation (determined seasonally, based on fish spawning and recreation needs). *Id.* at B-3. These daily drawdown cycles produce a tidal-like effect that inundates and dewateres shoreline and shallow-water habitats, such as the Conejohela Flats. *Id.* Dewatered mudflats are especially appealing to migratory shorebirds who frequently seek out such areas for feeding and resting.

228.0 feet msl from October 15 until April 15 (i.e., the non-migration season).<sup>7</sup> The Final Environmental Assessment (EA), prepared by Commission staff to evaluate the proposed increase, observed that the daily water level fluctuations and the availability of exposed mudflats above the existing maximum water elevation are important habitat features of the Conejohela Flats.<sup>8</sup> The EA also noted that the availability of exposed flats during the overnight period is critical because these areas provide essential resting areas for shorebirds.<sup>9</sup>

5. To allow Commission staff to evaluate the environmental effects of increasing the maximum water elevation to 228.0 feet msl, based on actual environmental response data, the 1998 order added several new articles to the license, including Articles 47, 48, and 49.<sup>10</sup>

6. Article 47 requires Safe Harbor, in part, to conduct fisheries investigations in conjunction with the proposed increase of the maximum water surface elevation. Similarly, Article 48 requires Safe Harbor, in part, to conduct shorebird, wading bird, and other bird species usage surveys at the Conejohela Flats in conjunction with the proposed increase. In years where such studies are required, Articles 47 and 48 instruct Safe Harbor to submit study results to the Commission by February 1 of the following year.

7. Article 49 requires Safe Harbor to implement the provisions of the Settlement Agreement with Lancaster Bird Club, including, among other things, provisions requiring Safe Harbor to monitor and maintain the same square footage of resting and feeding

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<sup>7</sup> *Safe Harbor Water Power Corp.*, 85 FERC ¶ 62,059 (1998) (Order Amending License).

<sup>8</sup> *Id.* at 19.

<sup>9</sup> *Id.* (explaining that, without these exposed areas, “shorebirds would have to disperse to alternate locations although there are no known local areas to support the large number of shorebirds that currently use the [Conejohela] flats.”).

<sup>10</sup> *Id.* at ordering para. (D).

habitat for migratory shorebirds at the Conejohela Flats (mudflat survey).<sup>11</sup> The Settlement Agreement was attached as Appendix A to the Order Amending License.<sup>12</sup>

8. On June 23, 2004,<sup>13</sup> Commission staff authorized a permanent increase in the normal maximum water surface elevation to 228.0 feet msl from October 15 to March 31<sup>14</sup> (i.e., during the non-migration season) and a temporary increase, not to exceed 228.0 feet msl, from April 15 to October 15 (i.e., during the migration season) for a period of eight years, provided that in any year lake elevations may not be increased beyond that level at which an equivalent area of shorebird habitat (at least 1.3 acres of resting habitat and at least 6.3 acres of feeding habitat) is available as demonstrated by that year's mudflat survey.

9. With the exception of a four-month period in 2005, the shorebird resting and feeding habitat environmental conditions outlined in the June 23, 2004 Order prevented Safe Harbor from increasing the maximum water surface elevation above 227.2 feet msl until 2011. Changes to the location and size of mudflats in 2011 allowed Safe Harbor to meet those conditions at a higher maximum water surface elevation of 227.4 feet msl in 2011 and 227.6 feet msl in 2012.

10. On April 3, 2013, upon expiration of the eight year period, Commission staff granted Safe Harbor's request for a one-year extension of time to maintain an increased

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<sup>11</sup> On March 23, 1998, Safe Harbor and the Lancaster Bird Club entered into a Settlement Agreement regarding, among other things, the maintenance of resting habitat for migratory shorebirds. The Settlement Agreement was filed with the Commission on March 24, 1998. Lancaster Bird Club Motion to Intervene at 3-6 (March 24, 1998). Specifically, the Settlement Agreement requires Safe Harbor to monitor and maintain the same amount of migratory shorebird habitat during the transition to a maximum operating level of 228.0 feet msl and for the duration of the project license. *Id.* at 6 (the term "same amount of habitat" is defined by the Settlement Agreement as the "same square footage or acreage of habitat.").

<sup>12</sup> Order Amending License, 85 FERC ¶ 62,059 at PP 63-67.

<sup>13</sup> *Safe Harbor Water Power Corp., Order Approving Final Reports on Fisheries Investigations and Bird Usage Surveys Pursuant to Articles 47 and 48, and Amending Article 44*, 107 FERC ¶ 62,269 (2004).

<sup>14</sup> This date was later amended to April 15. *Order Approving Final Report on Walleye Investigations Pursuant to Article 47*, 138 FERC ¶ 62,159, at ordering para. (B) (2012).

maximum water surface elevation.<sup>15</sup> Commission staff directed Safe Harbor to file, for review and approval, the results of the 2013 fisheries investigations, shorebird monitoring study, and mudflat survey. Commission staff further directed Safe Harbor to provide its recommendation for a permanent normal maximum water surface elevation for the period of April 1 to October 15, based on the multi-year physical and biological data collected pursuant to Articles 47, 48, and 49. Safe Harbor was required to submit these reports and its recommendation to the U.S. Fish and Wildlife Service, Pennsylvania Fish and Boat Commission, Pennsylvania Game Commission, and Lancaster County Bird Club for a minimum 30-day review and comment period.

11. On January 31, 2014, Safe Harbor filed the results of its 2013 studies and requested authorization to increase Lake Clarke's normal maximum water surface elevation permanently to 227.6 feet msl from April 15 to October 15 and temporarily to a higher elevation of up to 228.0 feet msl during this same time based on favorable results of mudflat and fisheries surveys.

12. On March 16, 2015, Commission staff issued an order approving the 2013 studies and granting Safe Harbor's requests.<sup>16</sup>

13. On March 30, 2015, Mr. Book filed a request for rehearing.<sup>17</sup> Mr. Book expressed concerns related to the methodology and results of the 2013 shorebird monitoring study. He also raised concerns regarding the decline in shorebird numbers at the Conejohela Flats and habitat fragmentation.

14. On June 8, 2015, Commission staff held a technical meeting at the Safe Harbor Project in Conestoga, Pennsylvania, to discuss the March 16, 2015 order and the issues that Mr. Book raised in his request for rehearing. Mr. Book, Safe Harbor personnel, Commission staff, and representatives from the U.S. Fish and Wildlife Service (FWS),

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<sup>15</sup> Safe Harbor Water Power Corp., *Order Granting Extension of Time Pursuant to Article 44 and Temporary Deferment of Article 49*, 143 FERC ¶ 62,008, at ordering para. (C) (2013). This one-year extension allowed Safe Harbor to maintain an elevation of 227.6 feet msl from April 15 to October 15, 2013.

<sup>16</sup> Order Increasing Elevation, 150 FERC ¶ 62,160.

<sup>17</sup> Gerald S. Book March 30, 2015 Request for Rehearing (Rehearing Request).

Pennsylvania Game Commission, the Louis Berger Group, Inc. (Louis Berger),<sup>18</sup> and Bird Treks<sup>19</sup> attended the meeting.

15. On August 27, 2015, FWS filed comments regarding the matters at issue and providing recommendations. FWS stated that the eastern flyway<sup>20</sup> shorebird numbers appear to have stabilized for most species after previous declines. FWS explained that, with the exception of the semipalmated sandpiper, North American populations of the shorebird species that are most abundant on the Conejohela Flats are either stable or increasing.<sup>21</sup>

16. Observing that the maximum water surface elevation was increased from 227.2 feet to 227.4 feet in 2011, FWS speculated that this increase in water level might have been a contributing factor to the significant decrease in shorebird numbers at the Conejohela Flats in 2011. Additionally, FWS questioned the conclusion that the shorebird decline was likely caused by events outside of Safe Harbor's control.<sup>22</sup> Rather, FWS observed that, while outside factors may have contributed to the decline, a correlation appears to exist between the increase in water level and the decline in shorebird numbers.

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<sup>18</sup> Louis Berger was hired by Safe Harbor to provide environmental consultation services, including the management and preparation of fisheries, shorebird, and mudflat surveys.

<sup>19</sup> Bird Treks assists in shorebird monitoring surveys under the direction of Louis Berger.

<sup>20</sup> The eastern, or Atlantic, flyway is a bird migration route within North America, which generally lies between the Atlantic coast and the Appalachian Mountains.

<sup>21</sup> FWS identified each of the following species as among the most abundant on the Conejohela Flats and indicated each species' corresponding population trend in parenthesis: *black-bellied plover* (stable to possibly increasing); *semipalmated plover* (increasing trend which has recently leveled off); *spotted sandpiper* (likely stable); *greater yellowlegs* (likely stable or increasing); *semipalmated sandpiper* (possibly declining); *dunlin* (stable); and *least sandpiper* (stable). FWS August 27, 2015 filing at 4.

<sup>22</sup> As discussed further below, Safe Harbor claims that the decline in shorebird population is linked to events which are beyond its control, including two storm events which occurred in 2011.

17. Discussing suitable shorebird feeding habitat, FWS explained that studies have demonstrated that shorebirds are more affected by the presence of humans than other waterbirds and that human activity within 300 feet of feeding shorebirds significantly contributes to decreased foraging time.<sup>23</sup> Additionally, FWS stated that shorebirds prefer open areas for feeding, removed from tall vegetation.<sup>24</sup> With regard to habitat fragmentation, FWS explained that shorebirds require large areas of mudflats for feeding and that the amount of cohesive habitat is a factor in determining overall habitat quality.<sup>25</sup> Taking into consideration recent observations of inadequate substrate quality,<sup>26</sup> increased habitat fragmentation, and proximity to tall vegetation, FWS concluded that, “there has been a decline in habitat quality which has coincided with the decline in shorebird numbers.”<sup>27</sup>

18. FWS also emphasized the availability of shallow waters as an important feature of feeding habitat for migrating shorebirds. During migration, shorebirds prefer areas featuring “shallowly flooded coastal or freshwater wetlands with water depths of less than 10 cm (4 inches),”<sup>28</sup> short vegetation,<sup>29</sup> and moist or muddy substrate.<sup>30</sup> FWS

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<sup>23</sup> FWS August 27, 2015 Filing at 12.

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> Recent observations have indicated that current mudflat habitat in the Conejohela Flats appears to be drier and sandier than the muddy substrate typically preferred by shorebirds. *See* Order Increasing Elevation, 150 FERC ¶ 62,160 at PP 16 and 30.

<sup>27</sup> FWS August 27, 2015 Filing at 12.

<sup>28</sup> FWS reported that research shows that for dunlin and semipalmated sandpiper, two of the most abundant species that use the Conejohela Flats, the number of individuals of these species increased with increasing availability of 0-4 cm (0-1.5 inch) habitat, and numbers were inversely related to water depth, with numbers negatively associated with increasing depths in the 4-8 cm (sandpiper) and the 0-4 cm (dunlin) ranges. *Id.* at 13.

<sup>29</sup> While vegetation density ranges from 0 to 75 percent cover at shorebird usage areas, the majority of use occurs at sites with less than 25 percent cover. *Id.* at 13.

<sup>30</sup> In freshwater areas, FWS explained that shorebirds consume large numbers of invertebrates found in wetland conditions and insects that propagate in standing water, mudflats, or moist substrates during drawdowns. *Id.*

reiterated the importance of habitat that contains little or no vegetation, which enables shorebirds to identify and evade predators.

19. FWS recommended that (i) Lake Clarke's maximum water surface elevation be returned to 227.4 feet msl or less during April 15 to October 15, until at least 1.3 and 6.3 acres of suitable<sup>31</sup> resting and feeding shorebird habitat can be demonstrated; (ii) design and implement a study to determine optimal shorebird habitat management within the context of fluctuating water levels related to project operation;<sup>32</sup> and (iii) ensure that suitable mudflat habitat is exposed for a minimum of three hours during each generation cycle, or no less than six hours during the daytime, and submerged for the balance of each cycle (until the results of the study proposed above in (ii) are obtained).

20. Alternatively, instead of recommendations (i) and (iii) above, FWS suggested implementation of one of the following measures: (a) identify larger, more continuous, low-lying areas with more suitable (i.e., muddy) substrate to be maintained free of vegetation for the upcoming 2016 shorebird spring and fall migrations seasons and subsequent migration seasons; (b) expand existing mudflats with suitable material (high silt content) to create one large mudflat area (or no more than two mudflat areas) meeting the required acreage amounts; or (c) use bioengineering techniques to expand existing mudflat areas to create one large mudflat area (or no more than two mudflat areas) meeting the required acreage amounts.

## II. Discussion

21. On rehearing, Mr. Book raises two main arguments. First, Mr. Book states that shorebird populations at the Conejohela Flats have declined by nearly 50 percent since 2011, which is the same time period Safe Harbor began raising lake elevations. Second, Mr. Book indicates that the quality of mudflat habitat has also declined in recent years,

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<sup>31</sup> Although FWS did not define "suitable," we conclude that, based on FWS' comments and recommendations, suitable shorebird habitat would include some, if not all, of the following factors: (i) a large, cohesive area or areas, (ii) distanced from tall vegetation (greater than four feet tall) by a minimum of 300 feet, and (iii) located at an elevation allowing at least three hours of exposure during each generation cycle, or no less than six hours during daytime, and submerged for the balance of each cycle (unless further study demonstrates another exposure schedule to be optimal for shorebird habitat management).

<sup>32</sup> Particularly, FWS identified optimal mudflat exposure time as an integral question warranting further study due to the "unique circumstances surrounding the development and maintenance of the Conejohela Flats." FWS August 27, 2015 Filing at 13.

thus contributing to declining shorebird numbers. Additionally, Mr. Book questions the survey methodology used and the results of the 2013 shorebird monitoring study and compares declining shorebird counts at the Conejohela Flats with purportedly steady shorebird numbers elsewhere in the eastern flyway zone. Although Commission staff previously addressed Mr. Book's arguments in the March 16, 2015 order,<sup>33</sup> the Commission will revisit these concerns in light of the new information and recommendations provided by FWS.

**A. Decline in Shorebird Numbers**

22. Mr. Book cites concerns regarding the nearly fifty percent decline in shorebird numbers at the Conejohela Flats that has occurred since 2011, the same year Safe Harbor began increasing water levels during the April to October migration period.<sup>34</sup> Commission staff acknowledged this concern in the March 16, 2015 order, but ultimately determined that decreasing shorebird numbers were not likely to be directly related to increasing water levels. Instead, Commission staff concluded that although water level increases could be one factor depressing shorebird numbers, the exact cause of the decline was unclear and difficult to determine due to the interaction of several possible variables.<sup>35</sup> Staff cited reduced habitat quality and major storms events in 2011 as the most likely cause of recent shorebird declines.<sup>36</sup> Commission staff deemed these factors to be outside of Safe Harbor's control.

23. However, recent comments by FWS support and expand upon Mr. Book's concerns. Contrasting eastern flyway shorebird numbers that have rebounded following previous declines, FWS is skeptical of Safe Harbor's position that factors outside of their control have contributed to the decline in shorebird numbers. Rather, FWS emphasizes the apparent correlation between increasing maximum water surface elevations during the migration season and the recent decline in shorebird numbers at the Conejohela Flats, with a significant drop experienced during 2011, 2012, and 2013.

24. In light of these comments, Commission staff again reviewed the physical and biological habitat data provided by Safe Harbor as part of the shorebird monitoring studies and mudflat surveys, with a particular focus on the data provided from 2011

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<sup>33</sup> See Order Increasing Elevation, 150 FERC ¶ 62,160 at PP 25-30.

<sup>34</sup> Rehearing Request at 1.

<sup>35</sup> Order Increasing Elevation, 150 FERC ¶ 62,160 at P 28.

<sup>36</sup> *Id.* P 26.

to 2013. Table 1 shows the relationship between maximum water elevations in Lake Clarke during the April 15 to October 15 shorebird migration season and the shorebird population.

Table 1: Lake Clarke Maximum Water Elevations and Shorebird Counts (1999-2013)<sup>37</sup>

Year	Maximum Water Elevation (ft) Apr 15 – Oct 15	Total Number of Shorebirds <sup>3</sup>
1999	227.2	10,404
2000	227.2	14,745
2001	227.2	15,015
2002	227.2	9,922
2003*	227.2	No data
2004*	227.2	No data
2005	227.4 <sup>1</sup>	Incomplete Data <sup>4</sup>
2006	227.2	18,326
2007	227.2	14,410
2008	227.2	16,330
2009	227.2	14,026
2010	227.2	11,803
2011	227.4 <sup>2</sup>	7,760
2012	227.6	6,850
2013	227.6	7,451

<sup>1</sup> Maximum elevation for 6/15/05 to 10/14/05. From 4/15/05 until 6/14/05, the maximum elevation was 227.2 feet.

<sup>2</sup> Maximum elevation for 6/8/11 to 10/14/11.

<sup>3</sup> Data from 2013 Shorebird Study (filed January 31, 2014).

<sup>4</sup> Totals are from only south migration surveys (7/3/05 – 10/30/05) and thus not comparable to other years.

\*Safe Harbor did not file shorebird studies or mudflat surveys in 2003 or 2004.

25. Data collected for 1999-2002 show noticeable variability among the years in total number of birds observed, with a significant decrease from 2001 to 2002 (down 34 percent). However, by 2006 the number of birds had rebounded to levels observed prior to the decrease in 2002. Data from 2006-2010 show year-to-year variability similar to that in earlier years. However, a significant decrease to previously unseen numbers began in 2011. This decrease coincided with increases in water level by Safe Harbor.

<sup>37</sup> Table 1 illustrates the shorebird survey data collected by Acres International Corporation (1999-2002), Hatch Acres Corporation (2005) and Louis Berger (2006-2013).

The fact that total number of shorebird observations remained low suggests a possible adverse effect of increased water level on numbers of shorebirds utilizing the Conejohela Flats. However, earlier fluctuations in shorebird numbers from year-to-year prior to any increase in water level elevations make it difficult to establish a direct cause and effect relationship between higher water levels and declining shorebird populations. Nevertheless, such a relationship cannot be ruled out. We find it more likely that the effects of higher water levels combined with lower habitat quality acted together to depress the number of shorebirds using the Conejohela Flats.

## **B. Decline in Habitat Quality**

26. Since the baseline survey conducted in 1998, Safe Harbor has filed annual reports on mudflat availability. If additional mudflat habitat was found, Safe Harbor conducted a mudflat survey identifying the available acreage of resting and feeding shorebird habitat on a map of selected mudflats and islands in the Washington Boro Area.<sup>38</sup> From year-to-year, the available habitat provided by these islands and mudflats may vary due to a gradual shifting and accumulation of mudflats, especially during high river flow events.<sup>39</sup> In September 2011, Hurricane Irene and Tropical Storm Lee caused flooding in and around the Conejohela Flats.<sup>40</sup> It is apparent that the high flows from these storms reworked the mudflats, changing their size, distribution, and composition. These changes

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<sup>38</sup> Safe Harbor filed shorebird monitoring studies on January 31, 2014, January 29, 2013, January 26, 2012, January 13, 2011, January 26, 2010, January 29, 2009, February 8, 2008, February 1, 2007, January 25, 2006, February 19, 2002, and February 27, 2001. These surveys provide a visual accounting to ensure the required quantity of shorebird habitat is maintained at a particular surface elevation. The 2011 mudflat survey, filed on June 9, 2011, showed two main mudflat areas, which provided a combined 2.0 acres of resting shorebird habitat. The 2012 mudflat survey, filed on April 17, 2012, identified four main mudflat areas, which provided a combined 1.5 acres of resting shorebird habitat. The 2013 mudflat survey, filed on January 31, 2014, showed five main mudflat areas that combined to provide 1.9 acres of resting shorebird habitat.

<sup>39</sup> See October 28, 1998 Final Environmental Assessment, Order Amending License, 85 FERC ¶ 62,059 at PP 44-45.

<sup>40</sup> The 2011 shorebird monitoring study, filed January 26, 2012, noted that more shorebird habitat became available following the September flooding caused by storm events Irene and Lee. 2011 Shorebird Monitoring Study at 5. The following year, the 2012 shorebird monitoring study, filed January 29, 2013, observed that additional mudflat deposition over the winter and spring of 2011-2012 (post-flooding) provided sufficient shorebird habitat to allow operation of a 0.2-foot-higher elevation than the previous summer. 2012 Shorebird Monitoring Study at 2.

reduced the quality of habitat needed to support the shorebirds. Instead of two primary areas used by shorebirds for resting and feeding, there are now five smaller areas identified in the mudflat surveys. In addition, the mudflats are now sandier and drier. As noted by FWS, shorebirds prefer wet, muddy habitat that harbors the insects and invertebrates they feed upon.

27. Mr. Book and FWS both identify concerns regarding the sub-standard quality of the shorebird habitat. It appears that some of the newer mudflat formations are located in areas that abut tall vegetation. Because areas in close proximity to tall vegetation are more difficult to access and provide ample cover for predators, shorebirds are less likely to use these areas. While the results of the shorebird monitoring studies provided the total numbers of shorebirds observed at the Conejohela Flats, these studies did not quantify the number of shorebirds observed at each distinct mudflat area. Nevertheless, based on the description of preferred habitat provided by FWS, it appears unlikely that the current mudflats, which are attached to larger land bodies and abut heavy vegetation, were heavily used by shorebirds.<sup>41</sup>

28. In this case, ensuring the availability of a total amount of acreage, regardless of quality or fragmentation, may not be enough to ensure that an increase in the water surface elevation does not adversely impact migratory shorebirds that rely on the Conejohela Flats to provide feeding and resting habitat during migration. The designation of the Conejohela Flats as an important bird habitat further compels the conclusion that the quality of the shorebird habitat may also warrant consideration, instead of simply calculating the total quantity of available acreage.

29. Upon further evaluation, we are not convinced that sufficient evidence exists at this time to justify an increase in the permanent normal maximum water surface elevation of Lake Clarke from April 15 to October 15. If Safe Harbor intends to continue pursuing an increase in the permanent normal maximum water surface elevation of Lake Clarke from April 15 to October 15, we recommend that Safe Harbor develop a new plan in consultation with FWS, Pennsylvania Game Commission, and the Lancaster Bird Club to

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<sup>41</sup> Additionally, Mr. Book claims that Safe Harbor did not explain why or when it decided to survey five mudflat areas, instead of two, when calculating the amount of mudflat habitat available to ensure the minimum quantity of resting and feeding habitat is maintained. Rehearing Request at 1. However, as Commission staff explained in the Order Increasing Elevation, Safe Harbor is simply surveying mudflats as they exist today. Order Increasing Elevation, 150 FERC ¶ 62,160 at P 27.

ensure suitable resting and feeding habitat is maintained.<sup>42</sup> Until any new plan is developed by Safe Harbor and approved by the Commission, Safe Harbor is required to maintain Lake Clarke at a permanent normal maximum water surface elevation of 227.2 feet msl from April 15 through October 15. Temporary increases in the maximum water surface elevation are no longer authorized.<sup>43</sup> For the reasons discussed above, we grant Mr. Book's request for rehearing.

The Commission orders:

(A) The request for rehearing filed March 30, 2015 by Gerald Book is granted, and the March 16, 2015 order is rescinded.

(B) Safe Harbor Water Power Corporation's proposal to increase the permanent normal maximum water surface elevation of Lake Clarke to 227.6 feet from April 15 to October 15, filed January 31, 2014, is denied.

(C) The permanent normal maximum water surface elevation of Lake Clarke is 227.2 feet from April 15 to October 15. Temporary increases in the maximum water surface elevation are no longer authorized.

(D) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 825l (2012), and the Commission's regulations at 18 C.F.R. § 385.713 (2015). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this

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<sup>42</sup> Any new plan should address not only the quantity of habitat needed (i.e., an appropriate square footage), but also the quality of this habitat (i.e., large and cohesive, removed from tall vegetation, muddy, and appropriate exposure) since both components are necessary to maintain this important shorebird migration area.

<sup>43</sup> Given our decision to end authorized increases, Safe Harbor is no longer required to monitor fish stranding, mudflat habitat, or shorebird use until any new plan is filed for Commission approval.

order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.