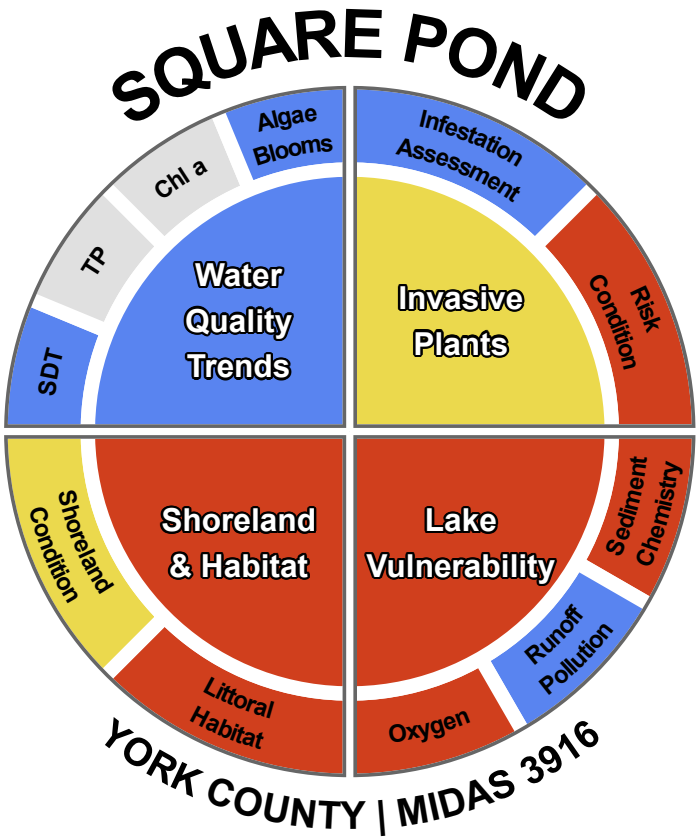
Square Pond
Water Quality
Shoreland & Habitat
Lake Vulnerability
Invasive Plants
Get Involved!

Maine DEP Lake Scorecard

Square Pond

MIDAS Number: 3916



Condition Assessments: Good Fair Poor/At Risk Unknown

The interactive scorecard image above summarizes many types of lake data into one color-coded graphic. The four main quadrants in the middle of the scorecard reflect the overall condition of the lake in four major categories: **water quality trends**, **invasive plants**, **shoreland and habitat**, and **lake vulnerability**.

The color is indicative of an overall condition assessment of each category: **blue** = *Good*, **yellow** = *Fair*, and **red** = *Poor/At Risk*. Each of the four major category assessments are based on scores of the sub-categories in the corresponding outer rim of the scorecard. Measurements that do not have enough data to make an assessment are displayed in **grey** (Table 1).

Hover over each section of the image to see a pop-up message that briefly explains why Square Pond scored a certain way. Click on any section to learn more about each parameter and how it was scored. Explore the links to the left for more information about each parameter, and why Square Pond scored the way it did for each category and sub-category.

Data period: through 2025

Table 1: General scorecard condition descriptions for the four categories.

Condition Category	Water Quality Trends	Invasive Plants	Shoreland & Habitat	Lake Vulnerability
Good	Available data indicate that water quality is *stable or improving*	The lake may be at a *reduced risk* for a new aquatic invasive plant infestation	Shoreland and littoral habitat are likely only *minimally* impacted by shoreland activities	The lake may be *less vulnerable* to water quality changes than other lakes
Fair	Available data indicate that water quality may be *declining*	The lake may be at a *moderate risk* for a new aquatic invasive plant infestation	Shoreland and littoral habitat are likely *moderately* impacted by shoreland activities	The lake may be *moderately vulnerable* to water quality changes
Poor/At Risk	Available data indicate that water quality may be *strongly declining*	The lake may be at a *higher risk* for a new aquatic invasive plant infestation	Shoreland and littoral habitat are likely *heavily* impacted by shoreland activities	The lake may be *highly vulnerable* to water quality changes
Unknown	There isn't enough information available to determine Water Quality Trends	There isn't enough information to determine the threat of a new aquatic plant infestation due to lack of available data.	There isn't enough information to determine the condition of the shoreland and littoral habitat due to lack of available data	There isn't enough information to determine the vulnerability of the lake to water quality changes due to lack of data

For general information about Square Pond, click here. (https://www.lakesofmaine.org/lake-overview.html?m=3916)

The data and methods used to create the condition categories contained in the Maine DEP Lake Scorecard are explained below. If you have questions about the Scorecard, please contact us at this address: (mailto:mainedeplakescorecard@maine.gov?m=3916)mainedeplakescorecard@maine.gov (mailto:mainedeplakescorecard@maine.gov).

✅ Take Action!

There are many ways that you can get involved to promote the health of Square Pond. See the Get Involved section for a list ways to take an active role in the condition of Square Pond.

Water Quality

Square Pond Water Quality: *Results*

Water Quality Trend Results

Long-term Secchi Disk Transparency (SDT), total phosphorus (TP), and Chlorophyll-a data are used to determine if the trophic state of a lake may be changing. Long-term trends may be calculated if there are at least 10 years of data collected within the last 30 years (1993-2022). These trend test results were used to inform the **Water Quality Trends** scores in the Maine Lake Scorecard. The results of trend tests are presented here if there have been enough data collected from Square Pond for any of these three parameters.

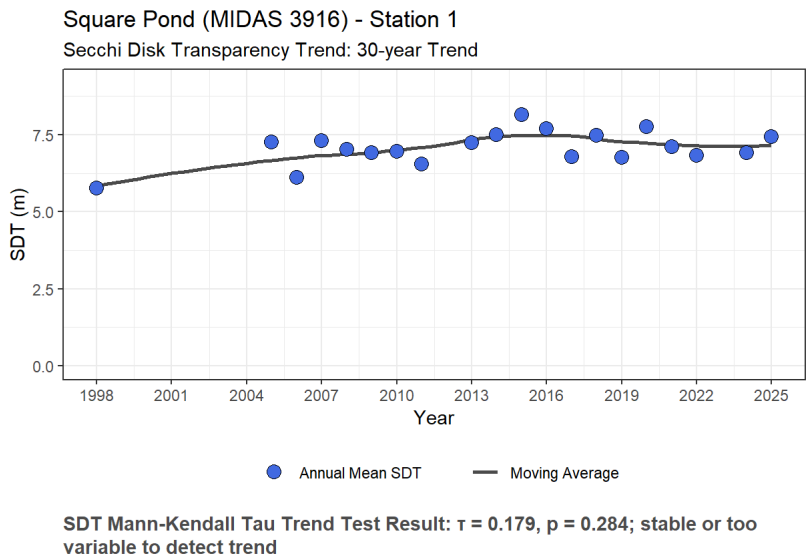
The Maine Department of Environmental Protection uses Mann-Kendall tau (τ) trend tests on these data to test for significantly changing conditions. The tau value is a measure of trend direction and magnitude. Positive tau values indicate positive (upward) trends, negative tau values indicate negative (downward) trends. Values further from zero (closer to -1 or 1) indicate a stronger trend. Tau values less than -0.5 or more than 0.5 here suggest the trophic state of a lake may be changing. Trends with p-values less than 0.05 indicate statistically significant trends.

It's important to note that what is presented here represents *trends* in lake water quality data, not a measure of current condition. For example, a lake flagged in red for "Poor/At Risk" does not necessarily mean it is experiencing harmful algae blooms; it means that a declining trend in water quality is evident in the data record.

Click here (https://www.maine.gov/dep/water/monitoring/305b/index.html) to learn more about how the Maine Department of Environmental Protection uses trend test results to evaluate lakes as part of the Maine water quality standard review process.

To learn more about how *Water Quality Trend* data are collected and analyzed, click here.

Secchi Disk Transparency data for Square Pond shows that the trend is *stable or too variable to detect trend*, which places Square Pond in the *Good* category for water clarity:



There are not enough data to perform trend tests for total phosphorus or chlorophyll for Square Pond. See the Get Involved section and the links below for more information on how you can help gather data to help determine the water quality condition and trends for Square Pond.

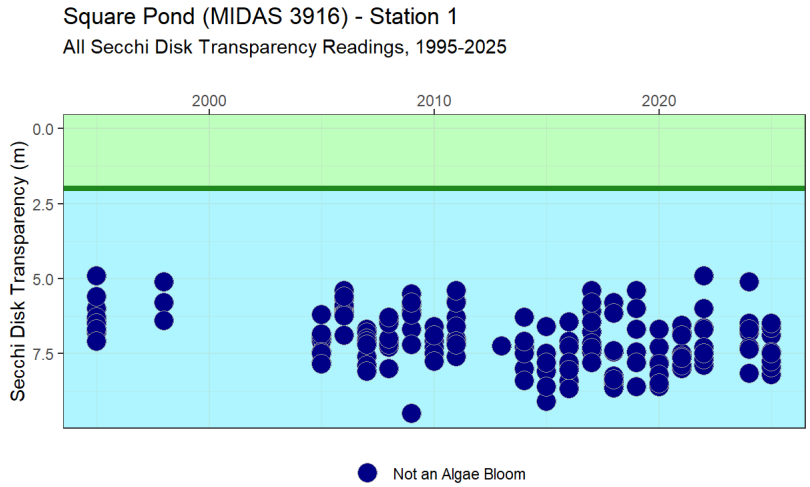
Algae Bloom Results

For the **Algae Bloom** subcategory, a minimum of 10 years of data is required to make an evaluation. If a lake has no algae blooms on record, the lake is scored as "Good". If there is evidence that a lake has had occasional algae blooms (defined as blooms in less than half of the years with recorded data), the lake receives a "Fair" evaluation. If the lake has documented algae blooms for more than half of the years on record, it is placed in the "Poor/At Risk" category.

The occurrence of algae blooms is based on Secchi Disk Transparency (SDT) readings. If a SDT value is less than 2.0 meters, it is considered a bloom (although exceptions can occur). The data from Square Pond are represented in the plot below; any SDT readings indicative of an algae bloom will be above the green horizontal line at 2.0 meters and the points will be colored bright green. Note that the vertical axis in this plot is reversed, so that the top of the plot represents the surface of the lake.

To learn more about how *Algae Bloom* data are collected and analyzed, click here.

Square Pond has had observed blooms in 0 out of 21 years of data. It has no algae blooms on record. This puts Square Pond in the Good category for Algae Blooms.



Square Pond has had observed blooms in 0 out of 21 years of data. It has no algae blooms on record.

Square Pond Water Quality: *Total Score*

Total score: The Water Quality Trend inner quadrant category is scored as an average of scores from the four sub-categories (Good = 1, Fair = 2, Poor/At Risk = 3; Table 2), as long as there is a minimum of two sub-categories with data. See the calculation for Square Pond in Table 3.

Table 2: Total Water Quality Category Scores

Overall Category Assessment	Average Score of sub-categories
Good	1
Fair	1-2
Poor	2-3
Unknown	Not enough data

Square Pond Water Quality Trend Score Calculation:

Table 3: Calculation for Square Pond **Water Quality Trend** metrics.

Parameter	score
Secchi Disk Transparency	1
Total Phosphorus	*Unknown*
Chlorophyll-*a*	*Unknown*
Algae Blooms	1
Average Water Quality Trend Score	**1**

The average **Water Quality Trend** score for Square Pond is 1, which places it in the *Good* category.

✅ Take Action!

You can help strengthen these datasets and fill in gaps in the information we have for Square Pond. Start by *clicking here* (https://www.lakestewardsofmaine.org/volunteer-programs-tools/water-quality-monitoring/) for information on how you can help collect data, and see the Get Involved section to explore other opportunities to take an active role in the condition of Square Pond.

How Water Quality Scores were Calculated

Water Quality Trend Score Calculations

Water Quality Trend scores are based on changes in lake condition over time (TP = Total Phosphorus, Chl-a = Chlorophyll-a, SDT = Secchi Disk Transparency) or frequency of algae blooms. A *Good* (**blue**) designation indicates stable or improving water quality, *Fair* (**yellow**) indicates slightly declining conditions (or a stable trend but the values indicate high-nutrient conditions), and *Poor/At Risk* (**red**) indicates strongly declining water quality. The algae bloom score is *Good* (**blue**) for lakes that have never had a bloom observed, *Fair* (**yellow**) for occasional blooms, and *Poor/At Risk* (**red**) for frequent blooms.

▶ *Click here for more information about Water Quality Trends*

***Water Quality Trend* results for Square Pond may be seen here.**

Algae Bloom Score Calculations

For the **Algae Bloom** subcategory, a minimum of 10 years of data is required to make an evaluation. If a lake has no algae blooms on record (indicated by a Secchi Disk reading less than 2.0 m) in the last 30 years (1996-2025), the lake is scored as “Good”. If there is evidence that a lake has had occasional algae blooms (defined as blooms in less than half of the years with recorded data), the lake receives a “Fair” evaluation. If the lake has documented algae blooms for more than half of the years on record, it is placed in the “Poor/At Risk” category (Table 6).

▶ *Click here for more information about Algae Blooms*

***Algae Bloom* results for Square Pond may be seen here.**

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Shoreland & Habitat

Square Pond Shoreland & Habitat: *Results*

Shoreland Condition Results

Shoreland Condition - Lake shorelands help protect the lake from stormwater runoff and the pollutants it carries, and also support healthy shallow water habitat. Shoreland condition is adversely affected by the conversion of natural shoreland vegetation to human infrastructure such as buildings, roads, and lawns. Shoreland condition is scored here by measuring the percentage of impervious surface within a 500 m (0.3 mi) shoreland buffer area around the lake. Impervious surfaces include areas such as roads, driveways, and buildings increase stormwater runoff volume and energy by preventing water from soaking into the ground slowly. The scorecard categories are based on the amount of impervious surface in this shoreland area relative to lakes across Maine (**blue** = minimal development, **yellow** = intermediate, **red** = highly developed).

The results of the shoreland condition assessment for Square Pond are below. Figure 1 shows the results of this assessment, which places **Square Pond** in the *Fair* category. See the Shoreland Condition section for more details on this score. A map showing the amount of impervious surface in the Square Pond shoreland area is displayed in Figure 2.

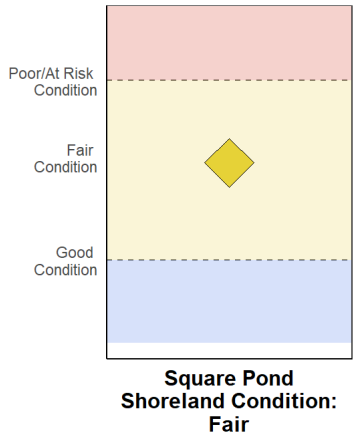

Figure 1: Results of Shoreland Condition assessment. The Diamond represents the percentage of impervious surface area in the shoreland area around Square Pond in relation to all Maine lakes.

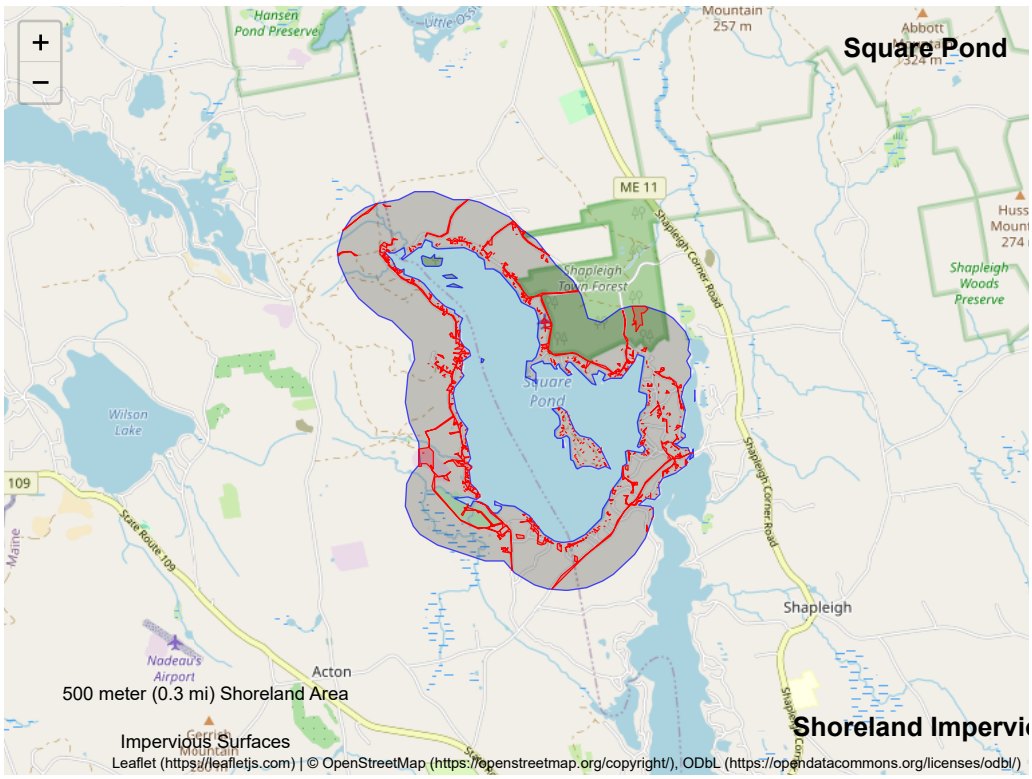

Figure 2: Map showing impervious surfaces in the 500 m (0.3 mi) shoreland area around Square Pond

To learn more about how *Shoreland Condition* data are collected and analyzed, click here.

Littoral Habitat Results

The results of Littoral (shallow water) Habitat assessments for **Square Pond** are presented below. Figure 3 shows the results of the overall habitat assessment based on field surveys, which places **Square Pond** in the *Diminished* category. These surveys are detailed in the Littoral Habitat section. Figure 4 shows the results of the individual metric values from **Square Pond** that were used to calculate littoral habitat condition for Deep lakes.

Figure 4 also shows the values for the *Riparian Condition Score*, which may be used to determine if the lakeshore is affected by human activity. Some lakes have naturally sparse habitat structure, which can be reflected in low Littoral Habitat Assessment scores in some instances. If a lake has a low Littoral Habitat Assessment scores, but a *high* Riparian Condition Score (indicating shorelands with minimal disturbance and natural vegetation), the habitat may be naturally sparse. If the lake has a low Littoral Habitat Assessment scores, and also *low* Riparian Condition Scores (indicating disturbed shorelands), the littoral habitat is likely being affected by human activity on shore.

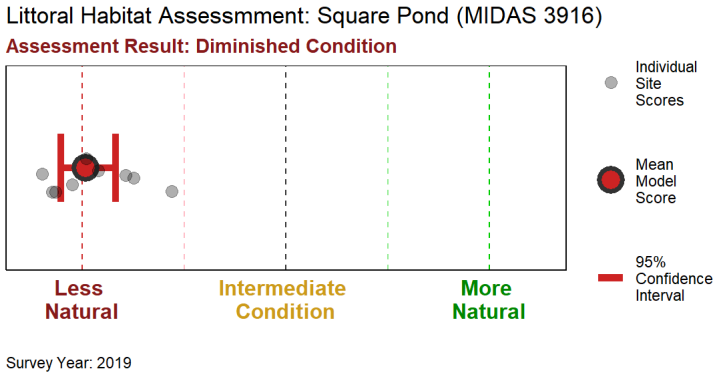

Figure 3: Littoral Habitat Assessment plot for Square Pond. Grey circles represent site scores of the 10 shoreline stations, the large black-outlined circle represents the mean scores for all 10 sites, and the bars represent the 95% confidence interval upon which the final assessment is based. If the lower bound of the confidence interval is above the central *Intermediate Condition* line, the lake is placed in the **Natural** category. If the upper bound is below the *Intermediate Condition* line, the lake is placed in the **Diminished** category. If the confidence interval passes through the *Intermediate Condition* line, the lake is categorized as being of **Intermediate** littoral habitat quality.

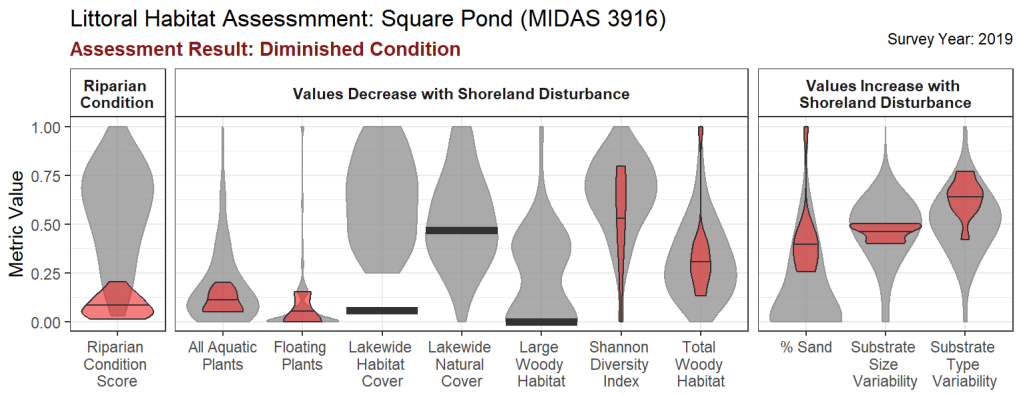

Figure 4: Littoral Habitat Assessment metrics for Square Pond as compared to metric values for all Deep lakes. This is a violin plot, which shows the distribution of metric values across all natural deep lakes, represented by the grey shaded areas behind the outlined, colored *violins* for Square Pond. The violin areas are wider where the values are more common. For example, if the widest part of the shape is near 0.5, most of the data for that metric occur near 0.5. Metrics with a similar width top to bottom have an even distribution of values from zero to one. Metrics that are measured with the same lake-wide value (i.e., the average score across all 10 sites is applied to each site) are represented in the violins by solid black lines indicating the value for Square Pond. Metrics are grouped by their response to shoreland disturbance. The Riparian *Score Condition Score* metric is used as an overall indicator of shoreland condition; higher values indicate more natural conditions along the lakeshore (see text above).

To learn more about how *Littoral Habitat* data are collected and analyzed, click here.

Square Pond Shoreland & Habitat: *Total Score*

Total score: The **Shoreland & Habitat** inner quadrant category is scored as an average of scores from the two sub-categories (Good = 1, Fair = 2, Poor/At Risk = 3; Table 7), as long as there is a minimum of one sub-category with data. The calculation for Square Pond is in Table 8.

Table 7: Total **Shoreland & Habitat** Scores.

Overall Category Assessment	Average Score of sub-categories
Good	1
Fair	1-2
Poor	2-3
Unknown	Not enough data

Square Pond Shoreland & Habitat Score Calculation:

Table 8: Calculation for Square Pond **Shoreland & Habitat** metrics.

Parameter	score
Littoral Habitat	3
Shoreland Condition	2
Average Shoreland & Habitat Score	**2.5**

The average **Shoreland & Habitat** score for Square Pond is 2.5, which places it in the *Poor/At Risk* category.

✅ Take Action!

Good stewardship of a lake begins with a healthy shoreland area. There are many resources available to help protect and restore lake shorelands.

LakeSmart (https://www.lakes.me/lakesmart) is a community-based lake protection program that educates shoreland homeowners about managing their property to protect water quality. Trained volunteers at more than 60 lakes in Maine lead LakeSmart visits with homeowners to identify and evaluate areas of runoff and erosion and recommend site-specific practices for keeping excess nutrients from reaching the lake. **Square Pond is not currently active in the LakeSmart Program.** For more information about LakeSmart, click **here** (https://www.lakes.me/lakesmart).

Resources about lake-friendly shoreland practices may be found on the Maine DEP Website (https://www.maine.gov/dep/land/watershed/camp/index.html). Regional Soil and Water Conservation Districts (https://maineconservationdistricts.wordpress.com/district-locations/) may also offer helpful resources for protecting lake shoreland areas.

A high amount of impervious surface in a lake shoreland area may be an indicator that the lake could benefit from a watershed survey and possibly some shoreland restoration practices. Grants and technical assistance are available (https://www.maine.gov/dep/water/grants/319.html) to support such projects.

How Shoreland & Habitat Scores were Calculated

Shoreland Condition Score Calculations

Shoreland disturbance is the conversion of shorelands from natural vegetation to human infrastructure such as buildings, roads, and lawns. These activities have an adverse effect on the water quality and habitat condition of lakes. The amount of shoreland development was calculated here by measuring the percentage of impervious area within 500 meters (0.3 miles) of each lakeshore. Impervious surfaces include areas such as roads, driveways, houses that increase stormwater runoff volume and energy by preventing water from soaking into the ground slowly. The values were then compared for lakes across Maine; lakes with less 1% impervious surfaces in the 500 meter shoreland area were placed in the **Good** (minimal development) category, lakes with 1-10% impervious shoreland area were placed in the **Intermediate** development category, and lakes with greater than 10% impervious area were designated as **Poor/At Risk**. These thresholds were based on patterns observed in trophic conditions (phosphorus concentrations) in Maine lakes at varying levels of impervious shoreland area (Figure 5).

▶ *Click here for more information about Shoreland Condition*

Shoreland Condition **results for Square Pond may be seen here.**

Littoral Habitat Score Calculations

Littoral habitat refers to the underwater features in the shallow parts of lakes and ponds that provide important cover, feeding areas, and breeding sites for all life found in lakes. Littoral habitat quality is diminished when the shoreland areas of lakes are converted from natural vegetation to human features such as lawns, buildings and roads.

The condition of Littoral Habitat is evaluated with field surveys that measure the quality of habitat compared to lakes with natural shorelines and no human development (**blue** = natural, **yellow** = intermediate, **red** = diminished habitat conditions).

▶ *Click here for more information about Littoral Habitat*

***Littoral Habitat* results for Square Pond may be seen here.**

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Lake Vulnerability

Lake vulnerability relates to how sensitive a lake is to various elements that influence the condition of its water. *Sediment chemistry* relates to how likely it is that phosphorus is released from the lake sediment; *Runoff Pollution* relates to elements of the watershed or lake that make the lake more susceptible to the effects of pollutants in stormwater runoff, and the *Oxygen* score indicates how likely it is that the lake will experience naturally low dissolved oxygen conditions, which may affect fish habitat and internal nutrient cycling.

In all three categories, **blue** = low vulnerability, **yellow** = moderate vulnerability, **red** = high vulnerability to water quality degradation. See the sections below for more information about each of these parameters.

Square Pond Vulnerability: *Results*

Sediment Chemistry Results

The results from Square Pond suggest that the lake sediment will likely release sediment-bound phosphorus under anoxic (low dissolved oxygen) conditions because neither thresholds of Al:Fe or Al:P for phosphorus retention are exceeded This puts Square Pond in the *Poor/At Risk* category for **Sediment Chemistry**.

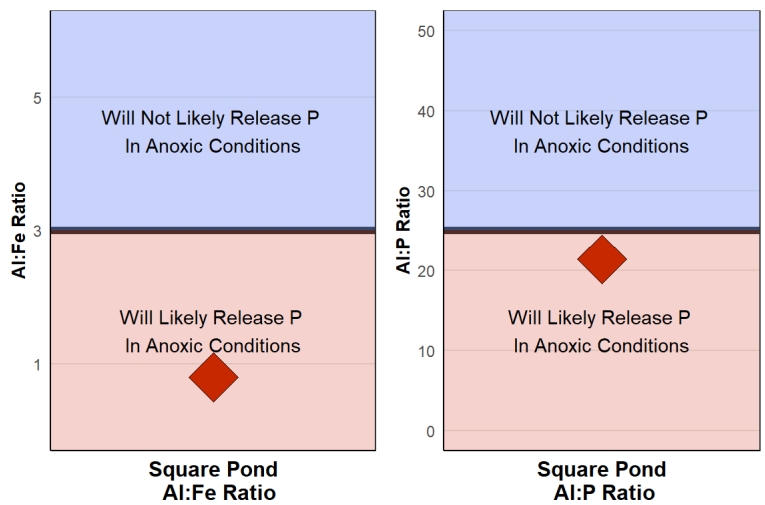

Figure 7: Sediment chemistry results for Square Pond.

To learn more about how *Sediment Chemistry* data are collected and analyzed, click here.

Runoff Pollution Results

Square Pond has not been identified as especially vulnerable to **Runoff Pollution** at this time. By default, this places Square Pond in the *Good* category.

For more information about Nonpoint Source Pollution and Maine lakes, see the DEP Nonpoint Source Pollution webpage (https://www.maine.gov/dep/land/watershed/nps_priority_list/index.html).

To learn more about how *runoff pollution* categories are determined and how they are used, click here.

Oxygen Results

The **Oxygen** score indicates how likely it is that the lake will experience naturally low dissolved oxygen conditions (*anoxia*), which may affect fish habitat and internal nutrient cycling. The results of the Oxygen model calculation for Square Pond are below.

As indicated in the plot, the likelihood of anoxic conditions decreases with increasing depth (horizonal x-axis), but simultaneously *increases* with a larger proportion of the lake underneath the epilimnion (curves going from blue to red).

The plot below shows the data for Square Pond (black diamond) as it relates to the predictive model for all lakes. The position of the diamond in the plot is a function of the maximum depth of the lake (horizontal x-axis) and the area below the epilimnion (the colored curved lines).The restuling vertical position of the diamond translates to the category results used in the Oxygen metric of the Scorecard: probability less than 0.25 (25%) of anoxia is *Good*, probability over 0.75 (75%) is *At Risk*, and probability between 0.25 - 0.75 is *Fair*.

The results below show that Square Pond is in the *Poor/At Risk* category, meaning that the likelihood of extensive anoxia occurring naturally is elevated, so the lake may be especially vulnerable to cultural factors that influence anoxia.

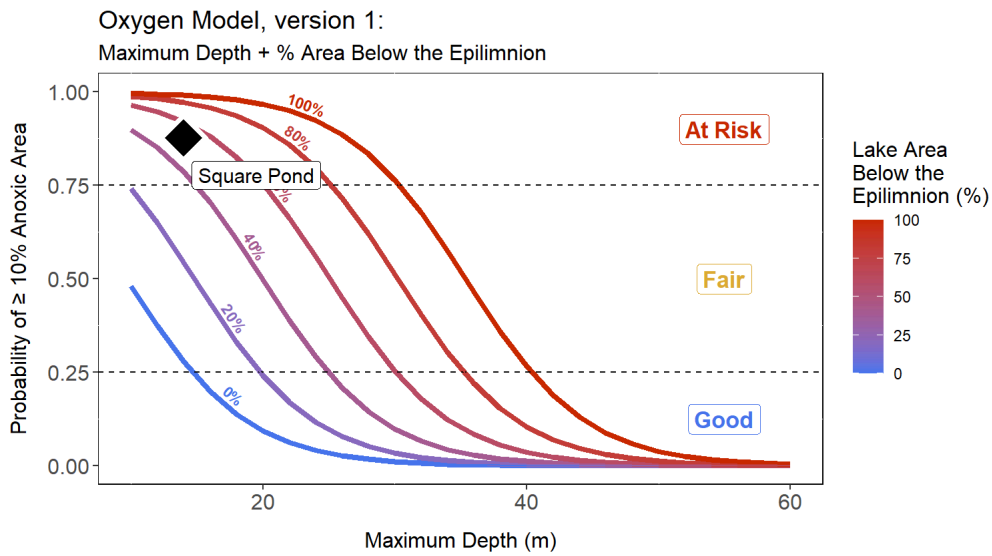

Figure 8: Oxygen loss model results for Square Pond. See text above for a detailed explanation of this figure.

To learn more about how *Oxygen* modeling data are collected and analyzed, click here.

Square Pond Vulnerability: *Total Score*

Total score: The **Lake Vulnerability** inner quadrant category is scored as an average of scores from the three sub-categories (Good = 1, Fair = 2, Poor/At Risk = 3; Table 11), as long as there is a minimum of two sub-categories with data. See the **Lake Vulnerability** score calculation for Square Pond in Table 12.

Table 11: Total **Lake Vulnerability** Scores.

Overall Category Assessment	Average Score of sub-categories, rounded up
Good	1
Fair	2
Poor	3
Unknown	Not enough data

Square Pond Vulnerability Score Calculation:

Table 12: Calculation for Square Pond Vulnerability metrics.

Parameter	score
Sediment Chemistry	3
Runoff Pollution	1
Oxygen	3
Average Lake Vulnerability Score	**3**

The average **Lake Vulnerability** score for Square Pond is 3, which places it in the *Poor/At Risk* category. Square Pond is highly vulnerable to water quality changes.

✅ Take Action!

Understanding lake vulnerability is critical for making good decisions about how to best manage the multitude of factors that influence lake condition. Lakes that are especially sensitive to Non-Point Source (NPS) Pollution may quality for grant funds to be used for watershed plans and pollution mitigation installations. See the links below for more information about these opportunities.

- Watershed Assessments (https://www.lakestewardsofmaine.org/volunteer-programs-tools/watershed-assessment/)
- Nonpoint Source Pollution Priority Lake List (https://www.maine.gov/dep/land/watershed/nps_priority_list/index.html)

How Lake Vulnerability Scores were Calculated

Sediment Chemistry Score Calculations

Sediment chemistry indicates how likely it is that phosphorus (P) may be released from lake sediment under anoxic (low dissolved oxygen) conditions.

▶ *Click here for more information about Sediment Chemistry*

***Sediment Chemistry* results for Square Pond may be seen here.**

Runoff Pollution Score Calculations

The **Runoff Pollution** subcategory relates to elements of the lake or its watershed that make the lake more susceptible to the effects of pollutants in stormwater runoff.

▶ *Click here for more information about Runoff Pollution*

***Runoff Pollution* results for Square Pond may be seen here.**

Oxygen Score Calculations

The **Oxygen** score indicates how likely it is that the lake will experience naturally low dissolved oxygen (DO) conditions (anoxia), which may affect fish habitat and internal phosphorus cycling.

▶ *Click here for more information about lake oxygen*

***Oxygen* model results for Square Pond may be seen here.**

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Invasive Plants

Aquatic invasive plants are introduced exotic flora that displace native plant and animal communities. Infestations result in habitat disruption, loss of property values, diminished water quality, reduced fishing and water recreation opportunities, and significant expense for mitigating the environmental costs. Invasive aquatic species are evaluated in two categories here: Infestation Assessments and Risk Condition.

Square Pond Invasive Plants: *Results*

Infestation Assessment Results

Invasive plants have not yet been found in Square Pond, but it's important to remember that survey efforts vary and infestations of aquatic invasive plants can go undetected for some time.

The best approach to keeping lakes free of aquatic invasive plants is frequent surveys and consistent preventative measures. See the Get Involved section for more information on aquatic invasive plant spread prevention.

To learn more about how the *Infestation Assessment* category was scored, click here.

View the Current Infestation map in a new browser tab by clicking here (https://maine.maps.arcgis.com/apps/mapviewer/index.html?webmap=126b9dbc59f44f969f74739bc9bc4ade).

Risk Condition Results

There is a high risk of an aquatic invasive plant infestation in Square Pond. This determination was made through a risk-assessment model created by Maine DEP Aquatic Invasive Plant biologists. To learn more about how the *Risk Condition* category was scored, click here.

Learn more about the Maine Aquatic Invasive Plant vulnerability assessment model clicking here (https://www.maine.gov/dep/water/invasives/vulnerability.html).

View an interactive vulnerability assessment map in a new browser tab by clicking here (https://www.arcgis.com/home/webmap/viewer.html?webmap=54b2a5c513a74af3bd0f42148dde34a9&extent=-70.98876728,43.46729976,-70.88776728,43.66729976).

Square Pond Invasive Plants: *Total Score*

Total score: The **Invasive Plants** inner quadrant category is scored as an average of scores from the two sub-categories (Good = 1, Fair = 2, Poor/At Risk = 3; Table 16), as long as there is a minimum of one sub-category with data. See **Invasive Plants** total score calculation for Square Pond in Table 17.

Table 16: Total **Invasive Plants** Scores.

Overall Category Assessment	Average Score of sub-categories
Good	1
Fair	1-2
Poor	2-3
Unknown	Not enough data

Square Pond Invasive Plants Score Calculation:

Table 17: Calculation for Square Pond **Invasive Plants** metrics.

Parameter	score
Risk Condition	3
Infestation Assessment	1
Average Invasive Plants Score	**2**

The average **Invasive Plants** score for Square Pond is 2, which places it in the *2* category.

✅ Take Action!

Prevention of infestation and early detection of any infestation is key to managing the spread of aquatic invasive plants in lakes. This is intensive work and is best conducted with many hands. See the links below for information about invasive aquatic plant management on your lake:

- Learn about Boat Inspections (https://www.maine.gov/dep/water/invasives/inspect.html)
- Establish a courtesy boat inspection program (https://mainelakes.org/invasives/courtesy-boat-inspections/)
- Seek funding for aquatic invasive plant prevention (https://www.maine.gov/dep/water/grants/invasive/index.html)
- Learn about invasive aquatic plant identification and becoming a certified invasive plant patroller (https://www.lakestewardsofmaine.org/volunteer-programs-tools/invasive-aquatic-species-prevention/ias-certification/)

How Invasive Plant Scores were Calculated

Infestation Assessment Score Calculations

The **Infestation Assessment** sub-category relates to the presence of invasive aquatic plants in a lake. If the lake has been surveyed within the last three years and no infestations have been observed or reported, the lake is listed in "Good" (**blue**) condition. If the lake was surveyed between three and six years ago and no infestations were observed or reported, the lake is scored as "Fair" (**yellow**) because it needs an updated survey for a proper assessment. If the lake has a current infestation of an invasive aquatic plant, the lake is scored in "Poor/At Risk" (**red**) condition (Table 18). An interactive map of current and eradicated aquatic invasive plant infestations is available *here* (https://maine.maps.arcgis.com/apps/mapviewer/index.html?webmap=126b9dbc59f44f969f74739bc9bc4ade).

Table 18: **Infestation Assessment** sub-category scoring criteria.

Infestation Assessment	Assessment	Explanation
Good	Has been surveyed within last 3 years (2021 or later), no aquatic invasive plants found	Recent surveys (within the last three years) have found no infestations of aquatic invasive plants.
Fair	The lake was surveyed 3-6 years ago (2018-2020), no aquatic invasive plants were found	The lake was surveyed 3-6 years ago (2018-2020) and no aquatic invasive plants were found. New survey data are needed to make a better-informed determination.
Poor	Current known infestation	There is a current infestation of at least one species of invasive aquatic plant in this lake.
Unknown	There are old survey data only (before 2018) OR There are no survey data available	Either no data or only historic data are available; there is not enough information to make a determination on condition.

***Infestation Assessment* results for Square Pond may be seen here.**

Risk Condition Score Calculations

Risk Condition is an indication of the likelihood of a new invasive aquatic plant infestation occurring at the lake. This is based on a risk-assessment model created by Maine DEP Invasive Aquatic Plant biologists. The vulnerability of a lake to novel invasive aquatic plant infestations is related to several key factors, including: volume of lake use, availability of public boat access, proximity to other infested waterbodies, potential for colonization, and others. More information on this analysis can be seen *here* (https://www.maine.gov/dep/water/invasives/vulnerability.html).

Since all Maine lakes are at risk of an invasive aquatic plant infestation, there are no lakes in the "Good" (**blue**) category. Lakes are either put into categories of moderate risk (**yellow**) or elevated risk (**red**) (Table 19).

Table 19: **AIS Risk Condition** sub-category scoring criteria.

Risk Condition	Assessment	Explanation
Good	–	This category is not used: all Maine lakes are at risk for an invasive aquatic plant infestation.
Fair	Moderate Risk	There is a moderate risk of an invasive aquatic plant infestation.
Poor	High Risk	There is an elevated risk of an invasive aquatic plant infestation.

Risk Condition	Assessment	Explanation
Unknown	Parameter Unassessed	Not enough data are available to assess the infestation risk for this lake.

Risk Condition **results for Square Pond may be seen here.**

Get Involved!

How You Can Help Your Lake

There are many ways for you to take an active role in the condition of Maine lakes. Supporting your local lake-focused organization is a great first step to getting involved. See the links below for specific ways to get involved that relate to the four components of lake health that are discussed here.

Water Quality – The collection of good monitoring data is essential to understanding the quality and condition of lakes. Volunteer lake monitors have an integral role in collecting these data. If you are interested in becoming a volunteer lake monitor, see the link below:

- Lake Stewards of Maine - Water Quality Monitoring (https://www.lakestewardsofmaine.org/volunteer-programs-tools/water-quality-monitoring/)

Invasive Plants – Prevention of infestation and early detection of any infestation is key to managing the spread of aquatic invasive plants in lakes. This is intensive work and is best conducted with many hands. See the links below for information about invasive aquatic plant management on your lake:

- Learn about Boat Inspections (https://www.maine.gov/dep/water/invasives/inspect.html) (Maine DEP)
- Establish a courtesy boat inspection program (https://mainelakes.org/invasives/courtesy-boat-inspections/) (a Maine DEP program administered by Lakes Environmental Association)
- Seek funding for aquatic invasive plant prevention (https://www.maine.gov/dep/water/grants/invasive/index.html) (Maine DEP)
- Learn about invasive aquatic plant identification and becoming a certified invasive plant patroller (https://www.lakestewardsofmaine.org/ais-workshops/) (Lake Stewards of Maine)

Shoreland & Habitat – Good stewardship of your lake begins with a healthy shoreland area. There are programs in place to help establish and promote healthy lake shorelands which protect water quality and habitat.

- Manage non-point source pollution from shoreland development (https://www.maine.gov/dep/water/grants/319.html) (Maine DEP)
- LakeSmart - to promote healthy lakeshores (https://www.lakes.me/lakesmart) (Maine Lakes)

Lake Vulnerability – Understanding lake vulnerability is critical for making good decisions about how to best manage the multitude of factors that influence lake condition. Lakes that are especially sensitive to Non-Point Source (NPS) Pollution may quality for grant funds to be used for watershed plans and pollution mitigation installations. See the links below for more information about these opportunities.

- Watershed Assessments (https://www.lakestewardsofmaine.org/volunteer-programs-tools/watershed-assessment/) (Lake Stewards of Maine)
- Nonpoint Source Pollution Priority Lake List (https://www.maine.gov/dep/land/watershed/nps_priority_list/index.html) (Maine DEP)

Other ways to protect Maine lakes

- Join your Lake Association (https://www.lakes.me/lake-associations) or start your own (https://www.lakes.me/lake-associations/resources) (Maine Lakes)
- Keep track of workshops, events, and other training opportunities (https://www.lakestewardsofmaine.org/workshops-events/) workshops, events, and other training opportunities in Maine (Lake Stewards of Maine)
- Look out for loons! (https://www.lakes.me/loons) (Maine Lakes)
- Learn about all things Maine Lakes:
    - Maine Lakes Library (https://www.lakes.me/library) (Maine Lakes)
    - Lake Stewards of Maine video library (https://www.lakestewardsofmaine.org/resources/videos/) (Lake Stewards of Maine)
    - LakeSmart (https://www.lakes.me/lakesmart) (Maine Lakes)
    - A field guide for things you'll see in and near your lake (https://www.lakestewardsofmaine.org/volunteer-programs-tools/field-guide-aquatic-phenomena-app/) (Lake Stewards of Maine)
    - A guide to science and stewardship of Maine Lakes (https://www.lakes.me/lakebook) (Maine Lakes)

- Join the conversation about Maine Lakes (https://www.lakes.me/laketalk) (Maine Lakes)
- Explore Maine Lake information (https://www.lakesofmaine.org/index.html) (lakesofmaine.org, website managed by Lake Stewards of Maine)
- Other ways to get involved (https://www.lakestewardsofmaine.org/volunteer-programs-tools/volunteer/) (Lake Stewards of Maine)

Lake-Focused Organizations in Maine

Statewide:

- Lake Stewards of Maine (https://www.lakestewardsofmaine.org/)
- Maine Lakes (https://www.lakes.me/)
- Maine Conservation Districts (https://maineconservationdistricts.com/)

Regional:

- Lakes Environmental Association (https://mainelakes.org/)
- 7 Lakes Alliance (https://www.7lakesalliance.org/)
- Midcoast Conservancy (https://www.midcoastconservancy.org/healthy-waters)
- 30 Mile River Watershed Association (https://30mileriver.org/)
- Rangeley Lakes Heritage Trust (https://rlht.org/)
- Downeast Lakes Land Trust (https://downeastlakes.org/)
- Kezar Lake Watershed Association (https://kezarwatershed.org/)

Watershed Districts:

- Portland Water District (https://www.pwd.org/sebago-lake-protection)
- Cobbossee Water District (https://www.facebook.com/CobbosseeWatershedDistrict/)
- York Water District (https://www.yorkwaterdistrict.org/watershed)
- Auburn Water District (https://awsd.org/)

Find a Lake Association

Click here (https://www.lakes.me/map) to look for an active lake association in your area. If you don't find one, consider starting one! (https://www.lakes.me/lake-associations/resources)

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