

**PUBLIC WORKS COMMITTEE**  
9:00 a.m., Wednesday, August 1, 2018  
City Hall Conference Room  
1207 Palm Boulevard

**AGENDA**

1. Call to order and acknowledgement that the press and public were duly notified of the meeting in accordance with the Freedom of Information Act
2. **Approval of Previous Meeting's Minutes**  
Regular Meeting of July 6, 2018
3. **Citizens' Comments**  
Resident of 21<sup>st</sup> – 22<sup>nd</sup> Avenue – Re-opening storm water ditch
4. **Department Reports for July 2018** – Director Pitts  
Vehicle Maintenance and Trash Collection Tracking Reports
5. **Old Business**
  - A. Update on Phase II Drainage project
  - B. Update on removal/replacement of underground storage tanks at Public Works
  - C. Discussion of Proposal from John Garrels, potential buyer of Schupp Enterprises
  - D. Update on Cross Lane Ditch
6. **New Business**
  - A. Re-opening storm water ditch at 21<sup>st</sup> – 22<sup>nd</sup> Avenue
  - B. Discussion of ditch between 31<sup>st</sup> and 32<sup>nd</sup> Avenue
  - C. Discussion of ditch at 24<sup>th</sup> and Hartnett Boulevard
  - D. Discussion of beach cleaning equipment
7. **Miscellaneous Business**

Next Meeting Date: 9:00 a.m., Thursday, September 6, 2018 in the Conference Room
8. **Executive Session in accordance with S.C. Code Section 30-4-70(a)(2)** – if needed
9. **Adjournment**

**Public Works Committee**  
10:00 a.m., Friday, July 6, 2018

The regular meeting of the Public Works Committee was called to order at 10:00 a.m., Friday, July 6, 2018 in the City Hall Conference Room, 1207 Palm Boulevard, Isle of Palms, South Carolina. Attending the meeting were Councilmembers Buckhannon and Kinghorn, Chair Rice, Director Pitts, Interim Administrator Fragoso and Clerk Copeland; a quorum was present to conduct business.

1. Chair Rice called the meeting to order and acknowledged that the press and public were duly notified of the meeting in accordance with the Freedom of Information Act.

**2. Approval of Previous Meeting's Minutes**

**MOTION:** Councilmember Buckhannon moved to approve the minutes of the regular meeting of May 7, 2018 as submitted; Councilmember Kinghorn seconded and the motion PASSED UNANIMOUSLY.

**3. Citizens' Comments**

Bill Schupp introduced John Garrels of #5 30<sup>th</sup> Avenue who is interested in buying Mr. Schupp's beach trash and recycling collection business beginning January 1, 2019. Mr. Schupp said that Mr. Garrels and his wife have retired to the Isle of Palms and have two (2) sons in the area to help him when needed. Responding to Chair Rice, Mr. Garrels informed the Committee that he has another business operating on the island, Chunky's Chairs and Umbrellas; when that business winds down in mid-October, he will be free to ride with Mr. Schupp and to learn the equipment.

**MOTION:** Councilmember Kinghorn moved to re-order the Agenda to discuss item C under Old Business at this time; Councilmember Buckhannon seconded and the motion PASSED UNANIMOUSLY.

**5. Old Business**

**C. Discussion with Bill Schupp about sale of his trash collection business**

Director Pitts told Mr. Garrels that this business involved shift work in that the trash collection must be done when the tide is out.

Councilmember Kinghorn thought that Council would like to have a brief written overview of the policies and procedures Mr. Garrel's would employ when he operates the business; the Councilmember also asked that he include his plans for the transition period.

When Councilmember Buckhannon asked why this was on the Agenda for the Public Works Committee, he was told that a provision in Mr. Schupp's contract was that the City must approve an assignment of the lease.

Mr. Schupp said that he has two (2) years remaining on his contract with the City and, with sixty (60) days' notice, the contract would automatically renew for an additional five (5) years. He also

told the Committee that a one (1) year probation period for a new operator was also a part of his contract.

Chair Rice referenced comments from residents that they would like for the City to have covered trash cans on the beach because the smell of the garbage seems to draw coyotes to the beach. Mr. Schupp and Mr. Garrels agreed that it would be nearly impossible to have garbage cans with lids on the beach. Mr. Schupp said that the barrels often have more garbage than the can is built to hold with bags on top of bags, and to have covered barrels would make the emptying process a two (2) person task with the second person removing and replacing the lids. Director Pitts added that some vacationers/second home owners will put the household garbage accumulated in a beach barrel rather than put the rollout cart on the street because the property owner does not want to pay a service to roll it back. He stated that, when the beach garbage collection was weekly, lids would have made more sense, but with collection now five (5) days a week, he did not think it would make a difference.

Councilmember Buckhannon asked that the members of the Committee be sent copies of Mr. Schupp's contract with the City.

Chair Rice asked Mr. Garrels to send his proposal to Interim Administrator Fragoso for review at the next Public Works Committee meeting; Mr. Schupp offered to inform him of the date, and he was advised that the date would be on the City's website.

#### **4. Departmental Reports for June 2018 – Director Pitts**

The Director reported that garbage was up slightly and debris was down; he attributes the reduction in debris to the fact that one (1) truck was down for most of June. He commented that the island is having garbage collections twice a week, debris removal once a week, and recycling weekly. A new style of popper-scooper was made available at the Bark Park for a test, and they have been well received by the community; the help to the Public Works personnel is that the individual boxes contain more bags. On eleven (11) days of the month, beach sweeps were done to remove broken beach chairs and broken or abandoned tents and umbrellas. With twice a week garbage pickup, the rights-of-way are now being mowed by HDR Services on a ten (10) day rotation schedule. He reminded the Committee that the pad and the ramp to the compactor are pressure-washed every week when the compactor is off-island; currently the Director sees two (2) issues with the City's compactor, i.e. the compactor and illegal dumping of all manner of stuff. When discussed at staff level, the consensus was that some of the users need additional training and the Police Department planned to re-direct the surveillance camera. The Department exceeded its FY18 budget for vehicle maintenance by approximately one thousand dollars (\$1,000) as a result of the Director's decision to rebuild the hopper structure in June.

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#### **5. Old Business**

##### **A. Update on Phase II Drainage project**

Interim Administrator Fragoso reported that the contractor has now crossed Palm Boulevard and has installed the large pipe at 46<sup>th</sup> Avenue; because the area between 46<sup>th</sup> and 47<sup>th</sup> Avenues is relatively tight, the engineer has requested that the contractor do vertical locates along Palm where the system will be installed so any adjustments that might be needed can be handled at the same time. The projected end date is the end of September for the construction.

**B. Update on removal/replacement of underground storage tanks**

Director Pitts had a pre-construction meeting with the contractor and the construction oversight engineer, and the work at the Public Works site is scheduled to begin in mid-July and is expected to take four to five (4 – 5) weeks to complete. The work at the marina is scheduled to begin at the end of September.

**D. Update on drainage issues at 32 Thirty-second Avenue**

Interim Administrator Fragoso informed the Committee that she and Director Pitts met with David Stevens of Civil Site Environmental, and a representative from Charleston County to get an update on what the County plans to do with the ditch at 32 Thirty-second Avenue since it is in a County easement. Included in the meeting packets was a memo from Frank Pandullo, Charleston County Storm Water Utility Manager, summarizing the meeting; in it, Mr. Pandullo stated that their recommendation was not to pipe the ditch and that they would cut-back the vegetation in the ditch and investigate the ditch downstream from Mr. Burke's property. (A copy of the letter is attached to the historical record of the meeting.) The consensus is that the problem is at the outfall which is not draining properly.

**6. New Business**

**A. Discussion of tents on the beach**

Director Pitts reported that Public Works personnel are on the beach at least three (3) days a week to remove broken chairs, tents and umbrellas or some simply left on the beach when the vacationers head home; one (1) beach sweep can take three to four (3 – 4) hours. The week of July 4<sup>th</sup>, Joseph Washington was on the beach every day, and he typically returns with the pickup truck filled to overflowing.

Chair Rice proposed somehow to franchise a beach chair and umbrella/tent business and to encourage visitors to rent them. She thought that to do this would reduce the amount of beach debris.

Councilmember Buckhannon remarked that this has been a problem for a long time, and he opined that, with the ever increasing population in Mount Pleasant and the construction just across the Connector, the re-appearance of this problem was inevitable. He commented that the only way he saw to avoid it would be through an ordinance.

Councilmember Kinghorn suggested adding the rental of tents or umbrellas to the two (2) chair rental franchises now operating.

**B. Discussion of commercial dumpsters in Wild Dunes**

Director Pitts recalled that, at the last meeting, he expressed concern that the Public Works staff was unable to complete the Tuesday/Friday routes in Wild Dunes in a normal work day and maybe not in a nine or ten (9 – 10) hours per day. The Director stated that, historically, as the island has "grown out," single-family residential garbage cans, both forty (40) and ninety (90) gallon cans, were distributed in Wild Dunes, some condominium complexes, for example Mariners Walk and Port o' Call, have sixteen to eighteen (16 – 18) single-family cans in an enclosure. Over time, the Director has observed the need to replace the single-family cans with a commercial dumpster; the City assumes payment for the dumpsters, but not the user fees, which are seven dollars (\$7)

per dump per big container. Changing to the commercial dumpsters makes the Public Works Department work more efficiently because they can now run the Tuesday/Friday routes in an eight-hour (8 hour) day. He stated that the City does not want to buy an additional packer for an estimated two hundred fifty thousand dollars (\$250,000) to make a Tuesday route; today, he said that he has five (5) packers on the route. Having gotten through July 4<sup>th</sup>, Director Pitts indicated that he considered the season "pretty much gone." For any condominium community the Director might choose, the change out must be done in the off-season; he anticipates removing the single-family cans and replacing them with commercial dumpsters in, possibly, two (2) condominium complexes.

Councilmember Buckhannon suggested that the Council might consider initiating a tiered system, like the Water and Sewer Commission has based on the consumption of water; whereby, residences would be charged for garbage pickups based on the number of cans in excess two (2) at each address.

Director Pitts explained that each residence was given one (1) complimentary can from the City; any additional cans cost the property owner a one-time payment of seventy-five dollars (\$75), which the Director described as "a cost pass-through."

Since additional cans put an additional burden on the Department and the taxpayers, Councilmember Buckhannon recommended finding a way to offset the additional expense to the City, if possible.

Councilmember Kinghorn saw two (2) ways to increase revenues to the City; the first would be to increase the cost to the property owner for the second and any additional cans based on the life expectancy of the can; the second would be a regular monthly charge per can in excess of two (2) to be attached to the property owner's water bill.

Director Pitts informed the Committee that each garbage can has a number, and he has a record of every can by address on the island in the Assistant Director's computer.

### **C. Discussion of Cross Lane ditch**

Chair Rice explained that concerns have been voiced about the re-growth in the ditch on Cross Lane, and she wanted to know when it would be cleaned again by Eadie's.

Director Pitts responded that, with the beginning of the FY19 budget year, Eadies will begin its cycle of cleaning the ditches again. He understood that they would be starting soon.

### **7. Miscellaneous Business**

Next Meeting Date: 9:00 a.m., Wednesday, August 1, 2018 in the Conference Room

### **8. Executive Session – not needed**

### **9. Adjournment**

**MOTION:** Councilmember Kinghorn moved to adjourn the meeting at 10:47 a.m.; Councilmember Buckhannon seconded and the motion PASSED UNANIMOUSLY.

Public Works Committee  
July 6, 2018

Respectfully submitted:

Marie Copeland.  
City Clerk

DRAFT









# JLG Enterprise Waste Management Business Plan Summary

## Our Services Offering

JLG Enterprise will be established with the aim of meeting and surpassing the expectations of city officials, residents and tourists.

Our service offerings are:

- Waste and refuse collection
- Recyclable material collection

## Our Mission Statement

Our mission is to sustain a successful waste management company that will operate on behalf of the city of Isle of Palms in keeping trash collected from the beachfront and beach access paths.

## Our Business Structure

Our business structure will consist primarily of the owners, John & Lisa Garrels.

John's responsibilities will be as follows:

- Responsible for handling core services such as, waste and recyclable material collection done around revolving tide tables and beach crowds
- Maintaining a logbook of driving activity
- Inspecting vehicles for mechanical items and safety issues and performing preventative maintenance

Lisa's responsibilities will be as follows:

- Responsible for preparing financial reports and statements
- Handling all financial transactions for the company
- Serving as internal auditor for the company

## SWOT Analysis

As a company, we look forward to maximizing our strength and opportunities and also to work around our weaknesses and threats. Here is a summary from the result of the SWOT analysis.

**Strength:** Our strength is centered around a strong work ethic and love for the Isle of Palms community.

Basically, we reside on the island and call it our home; our location is in fact one of our major strengths. Another strength that counts for us is the power of our team. We are a hardworking and dedicated husband and wife team.

**Weakness:** As a new waste management provider on the island, we are quite aware that it will take time for us to build trust with our clients. This may appear as an initial weakness.

- **Opportunities:** The opportunities available to us reside in a long-lasting relationship with the Isle of Palms City management. We hope to provide exceptional service for many years to come.
- **Threat:** Some of the threats we are likely to face are rising fuel prices, unfavorable government policies, replacement of equipment, seasonal fluctuations, demographic/social factors, and possible downturn in the economy which may affect consumers spending/vacationing. The most concerning threat is purchasing the business with the remaining two year contract and the city terminating the agreement at the end of the two years.

### **Our Pricing Strategy**

JLG Enterprises will assume the arrangement currently in place with Bill Schupp and the City of Isle of Palms, unless determined by local city government additional routes are needed. As the island continues to grow, we will review scheduled routes to accommodate the growing population.

### **Startup Capital**

JLG Enterprise is set to start as a private business that will be solely owned by John and Lisa Garrels. No additional funding/loans are needed.

One of our major goals is to build a business that will survive off its own cash flow without the need for injecting finance from external sources once the business is transitioned to us.

### **Insurance**

Insurance considerations have been addressed to assume identical coverage with the insurance agency Bill Schupp currently uses.

### **Items to Complete**

- Creation of JLG Enterprise Waste Management company through accountant
- Obtain Isle of Palms business license, effective January 1, 2019
- Conversation with City officials in regard to rewriting current Schupp contract to include remaining two years and an additional five years with a one year probationary period
- Legal contract between Schupp/Garrels executed and signed effective January 1, 2019
- Secure appropriate insurance policies effective January 1, 2019

# John C. Garrels

5 30<sup>th</sup> Avenue, Isle of Palms, SC 29451

843-471-4519

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*Project Planning-Project Execution-Project Management-Communication-Public Relations*

I am a results-oriented, skilled Professional with a solid supervisory background and experience working on projects in both private and commercial sectors. My background includes completing assignments in challenging environments and under strict deadlines. I am physically fit to meet the demands of all types of work. I work well with all levels of employees and am an effective trainer to other employees. I have both knowledge of and experience with implementation of safety in the work area. I have excellent communication skills and enjoy working with all types of people.

## Professional Experience

May, 2016 – Present (Seasonal) – Chunky's Chairs & Umbrellas - Owner

- Provide daily beach chair/umbrella service to vacationing guests on timely basis
- Maintain/repair equipment
- Supervise employees
- 

May, 2016 – Present (School Year) – Coastal Bus Lines

- Drive as a part-time and extra-curricular bus driver

December, 2014 – May, 2016 – Somerby of Mt. Pleasant - Maintenance

- Updated residential apartments for incoming residents
- Completed maintenance work orders
- Provided minor electrical, plumbing, painting and carpentry work/repairs throughout the facility

December, 2010 – August, 2014 – El Paso-Gridley School District

- Obtained CDL Class B with a School Bus Endorsement
- Drove for the El Paso-Gridley, Illinois school district as a full-time and extra-curricular bus driver
- Provided support to Athletic Department by keeping the official score books at games, running game clocks for both basketball and football events, and assisted with crowd control

August, 2006 – 2014 – Self Employed in Carpentry

- Performed Carpentry, Trim Work, Hardwood Floors, Decks, Window/Door Replacement – general construction, minor electrical and plumbing work
- Meet with homeowners to discuss remodel/renovations
- Provided accurate, timely construction bids

August, 2006 – 2014 – Waste Management Handler, HomeTown Disposal

- Drove waste truck on part-time basis (CDL license required)
- Followed route sheets
- Worked with no supervision

# John C. Garrels

5 30<sup>th</sup> Avenue, Isle of Palms, SC 29451

843-471-4519

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## August, 2003 – August, 2006 – Construction Superintendent, Character Builders, LLC

- Emphasis on single family/multi-family home construction
- Scheduled Sub-contractors
- Checked jobsites to ensure work was performed properly, timely and sub-contractors were keeping the jobsites clean and orderly
- Met with homeowners weekly to review changes and job progress
- Met with City Inspectors to ensure jobs were up to code and could proceed in a timely manner
- Ordered material for sub-contractors based on blueprints
- Compiled a jobsite punch list and scheduled sub-contractors to perform work to completion

## July, 2002 – August, 2003 – Waste Management Handler, American Disposal

- Drove waste truck on daily basis (CDL license required)
- Followed route sheets
- Worked with no supervision

## December, 1995 – July, 2002 – Employee and Shift Manager, Premier Industrial Cleaners MMMA

- 1<sup>st</sup> 2 years worked in Paint Shop performing routine work: cleaned paint booths, ovens, pretreatment tanks, general cleaning of Paint Shop, sweeping and mopping
- Last 5 years worked in Paint Shop as 3<sup>rd</sup> Shift Paint Shop Manager
  - Supervised 50-60 people
  - Inspected all jobs to ensure completeness and high quality of work
  - Implemented STOP Program
  - Conducted weekly safety and team meetings
  - Prioritized work and adjusted workload according to deadlines
  - Dealt with Human Resource/Safety issues such as: Lock-out Tag out Policies, Confined Space Policies, Sexual Harassment situations, documentation of critical incidents, discipline of workers
  - Worked on Spreadsheets and Word Processing software for documentation

## October, 1990 – December, 1995 Factor Worker, American Buildings Company

- Operated different machines within factory such as: Brake Presses, Punch Presses, Overhead Cranes, Forklifts
- Worked with little or no supervision on 3<sup>rd</sup> shift based on 2<sup>nd</sup> shift management's direction

## June, 1983 – October, 1990 Carpenter Local 63, Golden Triangle and King Construction

- Worked in all different phases of carpentry: framing, trim work, hardwood flooring, vinyl siding, door/window installation, built/installed cabinets
- Clinton Power Plant, State Farm Corporate (West Editions), MMA
  - Various concrete form work, scaffolding building, wood/metal stud framing, drywall hanging, door/window installation
  - Supervisory Skills where I delegated jobs to workers, prioritized work and inspected jobs

Personal references available upon request

# LISA GARRELS

5 30<sup>th</sup> Avenue, Isle of Palms, SC 29451

843-475-1588

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*Project Planning-Project Execution-Communication-Confidentiality-Networking-Programming-Data Modeling-Accounting-Legal Issues-Public Relations*

I am a highly skilled data researcher/developer with 35 years' experience working on both large and small projects within State Farm Insurance. My background includes actuarial science work, building statistical models, ad-hoc report development, catastrophe support/work, data preparation for litigation efforts, financial work and large system support. I have served as a team lead in various departments and am an effective trainer/mentor.

## Professional Experience – State Farm Insurance, Corporate

### December, 1998 – Present – Strategic Resources/Research and Development Team

- Team Lead
- Develop base data for Agent Placement Model, Catastrophe Support Exposure Analysis Tool, Early Loss Detection Tool
- Work with outside vendors to acquire a variety of demographic data to merge with internal State Farm Data for EUC applications used across the company
- Hurricane Katrina Litigation/Resolution data modeler
- Study building code with internal exposure and loss data to try and influence the industry

### December, 1995 – December, 1998– Finance/Financial Statements

- Main liaison with Deloitte & Touche in implementing PeopleSoft accounting software into State Farm
- Rewrote quarterly/annual statement processing for state/federal reporting
- Ad-hoc report development for Executive Finance
- Catastrophe support on storm sites and in home office

### October, 1988 – December, 1995– Fire Actuarial Department

- Developed in-house report generating system (SAS, Data Analyzer, APL)
- Supported predictive rate making system
- Ad-hoc report development
- Prepared exhibits for rate proposals

### August, 1983 – October, 1988– Finance/Statistical Analysis

- Employee Check cashing/issued traveler's checks
- Balanced accounting reports/resolved error issues with regional offices
- Maintained statistical coding manuals for the company

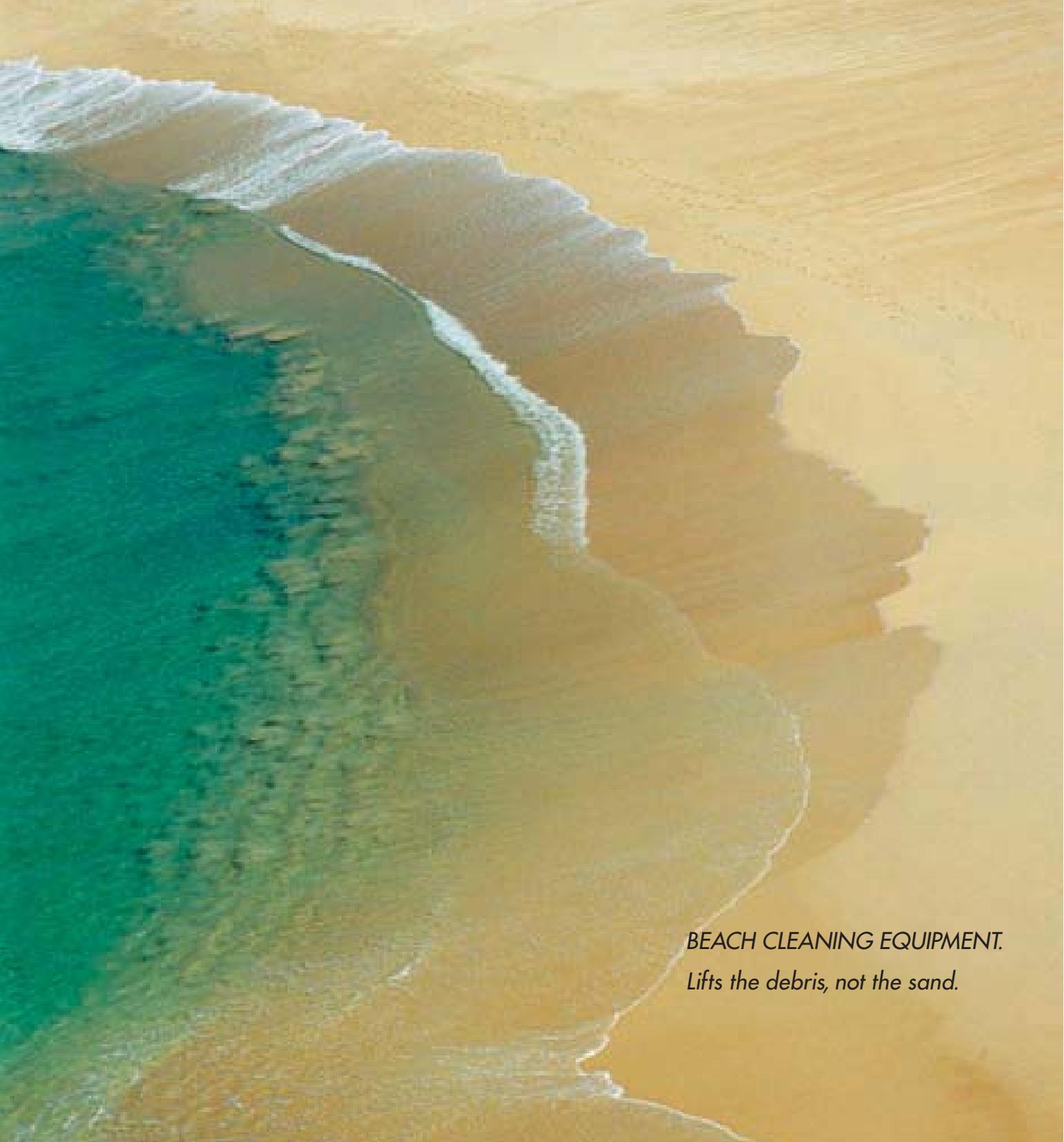
Proficient at: Microsoft Office products, SAS, Data Analyzer, PI/1, APL, DB2/SQL

Ditch between 31<sup>st</sup> & 32<sup>nd</sup> Avenue



New Ditch at 24<sup>th</sup> & Hartnett Boulevard





BEACH CLEANING EQUIPMENT.  
*Lifts the debris, not the sand.*

 **BARBER** SURF RAKE®

## THE COMPLETE LINE OF BARBER SURF RAKES®



### Model 600HD

At 3,800 pounds, the 600HD is H. Barber & Sons' largest SURF RAKE®. It has been successfully used in a variety of municipal applications. Cleaning up to eight acres an hour with its seven foot wide cleaning width, the 600HD has the greatest cleaning capacity of any beachcleaner. The 3 cubic yard hopper can lift up to 4,500 pounds of material and dump its contents hydraulically from a clearance height of nine feet.

### Model 400HD

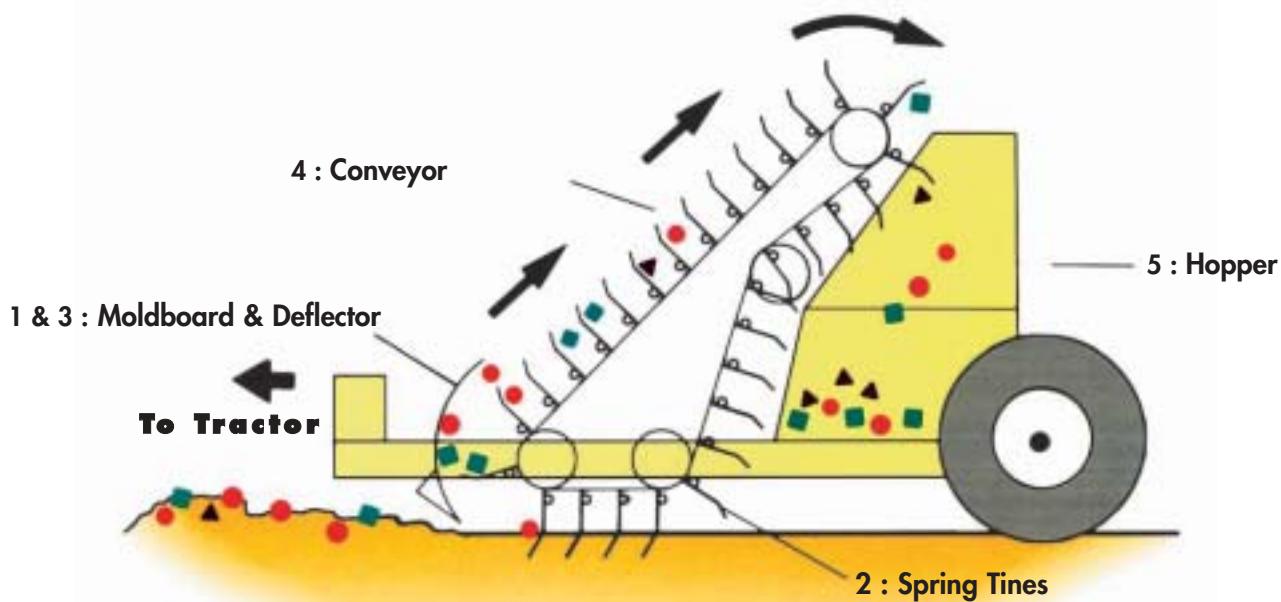
The model 400HD is an excellent choice for resorts, hotels and lakeshore communities. At 2,700 pounds, it is H. Barber & Sons' moderate-size SURF RAKE®. The 400HD is equipped with a 2 cubic yard hopper which will lift 3,500 pounds of debris to a dumping height of nine feet. This mid-sized model uses the same heavy-duty conveyor and dump components as the 600HD. The 400HD can clean up to five acres per hour.



### Model 400

Similar to the model 400HD, the model 400 is the smallest SURF RAKE®. It weighs 1,900 pounds and can lift up to 2,400 pounds in its 1 cubic yard hopper. Its hydraulic dump discards material neatly on the ground. Within one hour, the model 400 can effectively clean up to four acres.

## HOW IT WORKS



The Barber SURF RAKE® is a unique mechanical rake operated by one person from the seat of a towing tractor. It provides safe, fast and efficient beach cleaning. Here is how it works: **1.** The moldboard levels uneven areas in the sand. **2.** A 3/8" grid of stainless steel spring tines rake debris from the sand toward **3.** an adjustable deflector plate. As a result, refuse is deposited on **4.** the conveyor to **5.** the hydraulically raised hopper. The result: a clean, safe and well-manicured beach.



### ◀ THOROUGH CLEANING

Hundreds of stainless steel tines, mounted in offset rows, rake through the sand every second, removing the unwanted debris. Even the smallest objects such as glass, cigarette butts and pop-tops are captured by the SURF RAKE® and deposited in the hopper



### ◀ SANITIZING CONVEYOR BELT

The Barber SURF RAKE features a new Sanitizing Conveyor "S-Belt." This new belt design maximizes sand penetration and removal of extremely fine debris. Belt perforations, mounting tines underneath the conveyor and eliminating retaining bars now reduce the risk of residual sand removal. The new conveyor belt is easier to repair and keep clean and clear of debris.

### EXTRA STRENGTH STAINLESS STEEL TINE ▶

A new, double torsion, three coil stainless steel tine offers long life, great durability and resistance to corrosion.



## SPECIFICATIONS



<b>MODELS</b>	<b>600HD</b>	<b>400HD</b>	<b>400</b>
<b>HYDRAULIC DRIVE</b>	Completely sealed and protected by full flow filter. Large capacity spline mounted cast iron pump, hydraulic motor, flow control, and built-in overflow protection.	Completely sealed and protected by full flow filter. Large capacity spline mounted cast iron pump, hydraulic motor, flow control, and built-in overflow protection.	Completely sealed and protected by full flow filter. Large capacity spline mounted cast iron pump, hydraulic motor, flow control, and built-in overflow protection.
<b>CONVEYOR</b>	Of bar flight type with chain and sprocket drive, covered with continuous 6' wide NBR belt, which will not stretch or corrode.	Of bar flight type with chain and sprocket drive, covered with continuous 4' wide NBR belt, which will not stretch or corrode.	Of bar flight type with chain and sprocket drive, covered with continuous 4' wide NBR belt, which will not stretch or corrode.
<b>TINES</b>	Approx. 700 Stainless steel tines	Approx. 380 Stainless steel tines	Approx. 340 Stainless steel tines
<b>HOPPER</b>	3 cubic yard (4,500 lbs.)/ Hot dip galvanized	2 cubic yard (3,500 lbs.)/ Hot dip galvanized	1 cubic yard (2,400 lbs.) Hot dip galvanized
<b>DUMP HEIGHT</b>	9 feet	9 feet	Ground
<b>TIRES</b>	36 x 13.5 x 15 high flotation design	31 x 13.5 x 15 high flotation design	31 x 13.5 x 15 high flotation design
<b>MOLDBOARD</b>	A moldboard deflector plate is positioned at the front of the machine to level the beach before cleaning.	A moldboard deflector plate is positioned at the front of the machine to level the beach before cleaning.	A moldboard deflector plate is positioned at the front of the machine to level the beach before cleaning.
<b>OPERATING SPEEDS</b>	Up to 15.0 miles per hour	Up to 15.0 miles per hour	Up to 15.0 miles per hour
<b>CLEANING WIDTH</b>	7 feet (6 foot processing width)	6 feet (4 foot processing width)	6 feet (4 foot processing width)
<b>CLEANING DEPTH</b>	Adjustable to 6"	Adjustable to 6"	Adjustable to 6"
<b>DIMENSIONS</b>	Height: 7'6" Length: 13'1" Width: 7'8"	Height: 7'3" Length: 11'9" Width: 7'6"	Height: 4'5" Length: 9'10" Width: 7'6"
<b>WEIGHT</b>	Approximately 3800 lbs.	Approximately 2700 lbs.	Approximately 1900 lbs.
<b>PAINT</b>	Dupont IMRON® Polyurethane enamel	Dupont IMRON® Polyurethane enamel	Dupont IMRON® Polyurethane enamel
<b>FINISHING ATTACHMENT</b>	To smooth the sand and eliminate tire marks for a minimum 9 foot wide path - optional.	To smooth the sand and eliminate tire marks for a minimum 9 foot wide path - optional.	To smooth the sand and eliminate tire marks for a minimum 9 foot wide path - optional.
<b>GALVANIZATION</b>	All frame and body parts Hot Dip Galvanized - optional.	All frame and body parts Hot Dip Galvanized - optional.	All frame and body parts Hot Dip Galvanized - optional.
<b>PERFORMANCE</b>	Cleans up to 8 acres per hour	Cleans up to 5 acres per hour	Cleans up to 4 acres per hour
<b>TRACTOR REQUIREMENTS</b>	60 PTO horsepower 4-wheel drive agricultural type tractor with 30" rear wheels.	35 PTO horsepower 4-wheel drive agricultural type tractor with 28" rear wheels.	30 PTO horsepower 4-wheel drive agricultural type tractor with 28" rear wheels.

540 RPM rear PTO, 3 point hitch, and 1 remote hydraulic valve (minimum), up to 3 with options.  
This is a general guideline. Larger or smaller tractors may be used depending on beach conditions.

Broken glass, plastic, syringes, cigarette butts, pop-tops, straws, cans, tar balls, stones 3/8" to 4" in diameter, sea grass, sea weed, fish, small pieces of wood.

The manufacturer reserves the right to change the specifications without notice and without incurring obligation. The information contained herein is from data available at the time of printing.

The Barber SURF RAKE is the beach cleaner of choice for improving the appearance of public and private beaches. The most widely cited reason for choosing the SURF RAKE is its efficiency. It is designed with a unique raking system that quickly and thoroughly cleans an entire beach, including heavy debris areas along the water's edge. It is also the only beach cleaner that is equally effective in wet and dry sand at speeds up to 15 miles per hour. The ultimate result: your beaches are returned to a cleaner, more beautiful condition.



By eliminating the need for hand labor, the SURF RAKE actually reduces time and expense, resulting in an extremely cost-efficient method as well. Users find the SURF RAKE dependable, easy to operate and maintain. And with increasing concern for the environment, the Barber SURF RAKE is the least intrusive method of mechanical beach cleaning available today.

Barber SURF RAKES are maintaining beautiful beaches both domestically and internationally. Regardless of where a customer may be located, H. Barber & Sons promises expedient delivery of all parts and machinery. It is part of the company-wide commitment to excellent service which customers have come to expect from H. Barber & Sons. The corporate headquarters and manufacturing plant of

H. Barber & Sons is based in Connecticut. Sales and support services are handled through a worldwide dealer network. Throughout the company, quality production, responsive service and customer support are of utmost importance.

Since its establishment in 1966, H. Barber & Sons has been committed to the preservation of beautiful beaches and the environment. Its product, the Barber SURF RAKE, is the highest quality, most efficient beach cleaning equipment available. With its ability to clean a variety of beach conditions, the SURF RAKE has earned H. Barber & Sons the distinction of being the leader in beach cleaning technology and the largest manufacturer of beach cleaners in the world.

# *The World Leader in Tine Raking Cleaning Equipment.*



**Litter collection machines for both paved surfaces and grass areas.  
Truck towed and tractor towed models for all applications.**



**Stone pickers that remove debris and level work area in one pass.  
A variety of models for different size jobs.**



**World leader in beach cleaning equipment for more than 40 years.  
Models for all beaches and conditions.**



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## SURF RAKE Applications



**Pollution: Trash and Waste:** Trash left by beach goers or pollution washed in with the tide, the SURF RAKE keeps the shoreline safe for everyone-from tourists to protected marine life! It has a low ground pressure and can even run on eco friendly fluids such as Canola Oil. **Green is not just our paint color!** The SURF RAKE is a socially and environmentally responsible product.



**Small Material:** The SURF RAKE effectively removes even the smallest material. Cigarette butts, pop tops, straws, plastic, animal droppings, small shell, small stones, glass, debris and bottle caps are eliminated from beach sand. Our patented sanitizing system helps to remove various sized material while aerating the sand in the process. It can even remove pea gravel sized stone and debris without modifying the machine or changing screens.

### Large Rocks:

Another use for the SURF RAKE is for the removal of large rocks from both beach sand and turf applications. Pumped, nourished and reclaimed beaches often leave stone, debris and even bricks from ocean's floor. They are brought to pristine expectation with the SURF RAKE.



**Oil / Sludge:** Oil spill recovery requires a concentrated effort and is a major concern for coastal areas worldwide. Under the right conditions, mechanical beach cleaning is a very effective. The SURF RAKE can make oil and sludge clean up faster and more efficient than other methods. Hand labor is time consuming, expensive and remiss to eliminate all of the oil. Using a Sifter can promote erosion adding further negative impact to the environmental. In most situations, the SURF RAKE is capable of removing oil and tar balls in just one pass. Similarly, the SURF RAKE is an effective tool for sludge removal in wastewater basins. It has been used on oil spills in the U.S. and North American as well as Europe, Asia, Africa and Australia.





**Virgin Beach Sand:** Virgin beach-never used by tourists-never cleaned. The seaweed has been deposited, buried and decayed. The tide line is tourist readied in a matter of hours. Whether the beach is ocean, lake, natural or manmade, you can count on the SURF RAKE to give you a beautiful beach with fast, efficient and trouble free operation!

Photos: 1<sup>st</sup> cleaning Vieux Fort, St. Lucia & Cap Cana, Dominican Republic





**Seaweed and Algae:** The SURF RAKE works equally well in both dry and wet sand. If necessary, it can even work in water up to three (3) feet deep. It is the most efficient and effective mechanical beach cleaner and is the most ideal method for removing seaweed. The SURF RAKE is efficient in all sand conditions-wet or dry and most importantly, removes only the unwanted debris-NOT THE SAND.

Photos: Fort Lauderdale, FL and Carmel, CA





**Seaweed and Algae:** The SURF RAKE works well directly in water as well as wet sand. It can even work in water up to three (3) feet deep. In addition to creating a beautifully manicured beach, the SURF RAKE is proven to help reduce bacteria levels in beach sand. Photo: Door County, WI & RI DEM





**Natural Debris and Animal Waste:** The SURF RAKE removes all forms of unwanted material from beach sand. Natural debris that washes to the shore such as vegetation, driftwood, stones, shells, fish or waste left by animals, the SURF RAKE will remove the unwanted debris creating a clean, beautiful and safe beach for visitors. It is the only beach cleaner used in scientific studies and proven to reduce bacterial levels in beach sand. Photo: Alpena, MI and South Haven, MI





**Trash, Trash and more Trash:** Storms can carry debris left on the beach out in to the water and create a vicious cycle of harm to marine life and the environment. The SURF RAKE removes trash that washes in or is left behind-breaking the cycle and reducing pollution. The SURF RAKE saves marine life and prevents illness by removing trash and reducing bacteria in beach sand Photo: Oman & Singapore





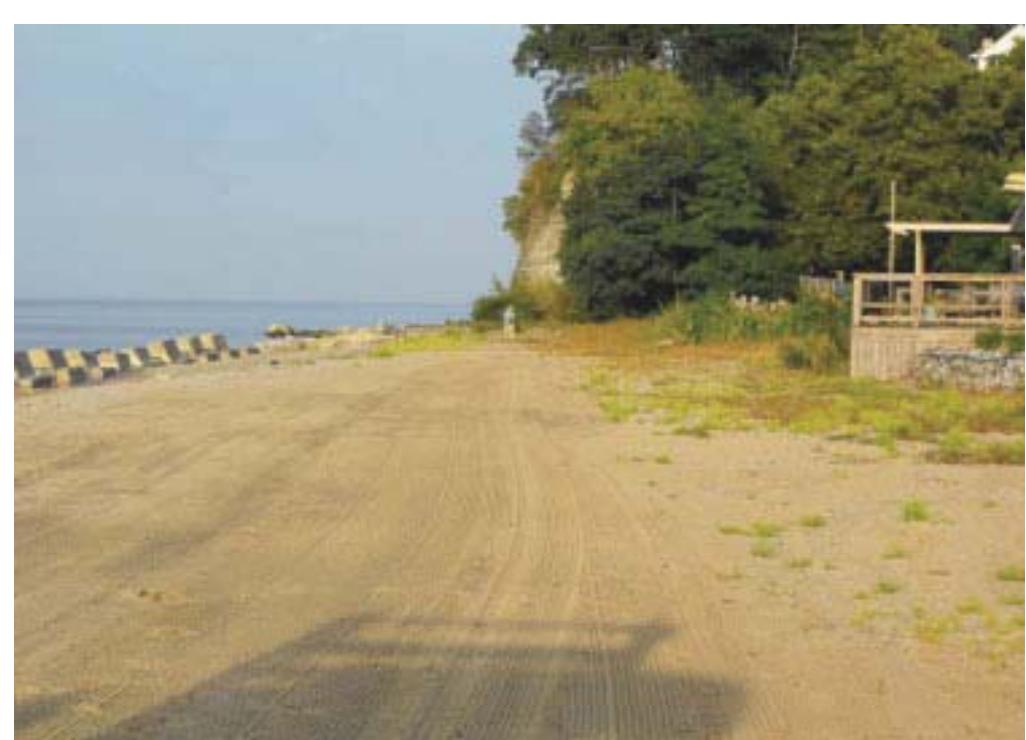
**Cigarette Butts, Pop Tops, Broken Glass and Shells:** Small but dangerous debris can often be found in beach sand. Whether seen on the surface or buried below, the SURF RAKES unique tine grid separates and removes cigarette butts, glass, broken shells, small stones, pop tops and syringes from beach sand. The SURF RAKE has the only tine grid system that allows you to clean deep and remove small material without “sifting” the sand. The SURF RAKES tine grid is least intrusive to the natural sand structure and will not promote sand erosion by wind and water like sifting machinery can. Photo: Atlantic City, NJ





**Fresh or Early Decay Algae:** The SURF RAKE removes all forms of unwanted material. Algae blooms are a natural and often seasonal occurrence. The SURF RAKE works efficiently to remove unwanted algae before decay muddies the water and pollutes that air. Early decaying algae is also removed eliminating noxious odors and unsightly material. Photo: Detroit, MI and Nicolet Bay, WI





**Encroaching Grass and Vegetation:** Maintaining harmony between the environment and recreation, the SURF RAKE is often used to remove encroaching grass and vegetation. Whether maintaining a beach or creating a sandy beach area for new developments, the SURF RAKE makes beaches beautiful while saving time and money! Photos: Lakewood, OH & Newport News, VA/South Amboy, NJ

